PROPOSED ADDITION TO THE AQUINNAH ZONING BY-LAW
Approved by the Planning Board at Public Hearing
On 5/5/08, further amended 5/8/8

ARTICLE XVI: – AQUINNAH ENERGY DCPC

SECTION 16.1 GOALS AND PRIORITIES

16.1-1 The goal of this by-law is to reduce the overall consumption of fossil fuels through energy conservation and the local generation of energy from renewable sources while minimizing any negative impact on residents and visitors and while preserving and protecting the cultural and natural environment of the town as delineated in the Goals of the Town of Aquinnah District of Critical Planning Concern (Section 13.1). This includes the unique natural beauty and the rural and visual character of the landscape, the significance of the land for the people of Gay Head/Aquinnah, historical values and reverence of the coastline.

16.1-2 The first priority is to reduce the overall consumption of fossil fuels by:

a) Improving efficiencies and reducing wasteful practices, especially by using building construction and renovation practices that optimize energy efficiency, and
b) Facilitating use of energy from local renewable sources such as wind, solar and geothermal by allowing various technologies to be utilized in ways **that do not impact** the cultural and natural environment of the Town.

When these priorities have been addressed, energy generation facilities that may impact the cultural and natural environment of the Town will be considered. These projects will only be approved if the **public benefit** of the facility outweighs the degree to which the goals of the Town of Aquinnah DCPC are not met.

16.1-3 To ensure that the goals and priorities of this bylaw are being met in the face of evolving technology and changing energy prices, the Planning Board Plan Review Committee will review and update this bylaw every five years at a minimum.

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SECTION 16.2 BOUNDARY DESCRIPTION

All lands and waters within the corporate bounds of the Town of Aquinnah, except the Indian Common Lands (generally known as the Cranberry Bogs, the Clay Cliffs and Herring Creek) and the Settlement Lands.

SECTION 16.3 USE

16.3-1 Except in the Large Wind Facility Overlay District and in the ocean waters within the corporate bounds of the Town of Aquinnah, use of an energy generating facility of any kind must be accessory to a primary use on the lot. A communal energy generating facility may by special permit be located on a neighboring lot without a primary use. Municipal Wind Facilities are exempt from this provision.

SECTION 16.4 ENERGY AUDITS

16.4-1 The purpose of this section is to encourage everyone to reduce the use of fossil fuels and save money by having an energy audit and talking advantage of available rebates, subsidies and tax credits. These are available free of charge through NSTAR and the Cape Light Compact. No special permit will be issued for additions to or work inside the weather walls of an existing structure that uses energy, or for a renewable energy system associated with such structure, until the applicant submits and the Planning Board Plan Review Committee approves the work to be done as the result of a professionally conducted energy audit that is not more than 5 years old. The energy audit should address electrical usage, heating, windows and insulation and include a blower test or other tests to identify heat loss or air infiltration. The audit should include the estimated cost of the improvements and the annual savings attained. A list of companies that perform professional audits is available at town hall. If there is more than one structure using energy on the lot, the applicant must submit energy audits for all energy using structures on the lot. In addition to the audit, applicant should indicate which items have been implemented or will be implemented by a target date. Justification must be submitted for any item not implemented.

SECTION 16.5 SPECIAL PERMITS

16.5-1 All Renewable Energy facilities require a Special Permit. The Planning Board Plan Review Committee (PBPRC) shall be the special permit granting authority for permits required under this by-law.

SECTION 16.6 LAND BASED WIND ENERGY FACILITIES

16.6-1 CATEGORIES

Wind Energy Facilities shall be divided into the following three categories for location and permitting requirements:

a) Systems less than 30 kW Rated Nameplate Capacity – herein referred to as a Small Wind Facility
b) Systems of between 30kW but less than 500 kW Rated Nameplate Capacity – herein referred to as a Medium Wind Facility
c) Systems of 500kW Rated Nameplate Capacity and larger – herein referred to as a Large Wind Facility

16.6-2 WIND FACILITY ASSOCIATIONS

For purposes of accommodating Wind Facilities owners may form associations, like road associations, or other legally binding forms of cooperative ownership, where deeded easements and restrictions can be put on portions of abutting pieces of land to create a common area that can be used for a Wind Facility and where the financial and other responsibilities of the owners are contained in a legally binding agreement. The association will bear all the responsibilities of an owner under this by-law and the cooperative agreement shall reflect such.

16.6-3 DEFINITIONS

Blade – Extensions from the hub which are designed to catch the wind and turn the rotor to generate electricity.

Blade-Tip Height - The height as measured from the grade of the land below to the highest extension of the blade.

Cut-out Wind Speed – The high wind speed at which the Facility must shut-down and/or turn perpendicular to the wind to protect itself from being overpowered, typically 56 mph.

Ground Blade Clearance - The height as measured from the grade of the land below the wind Facility to lowest extension of the blade.

Hub – The center of the rotor to which the blades are attached.

Hub Height – The height as measured from the grade of the land below the wind Facility to the center of the rotor or hub.

Nacelle – The frame and housing at the top of the tower. It protects the gear box and generator from weather and helps control the mechanical noise level.

Rated Nameplate Capacity – The rated output of electric power producing equipment. This output is typically specified by the manufacturer with a "nameplate" on the equipment.

Rotor – A wind Facility's blades and the hub to which they are attached.

Rotor Diameter – The diameter of a wind facilities rotor measured as twice the length of the longest blade plus the hub width (or equal to the diameter of the cylinder).

Tree Line Blade Clearance – The height as measured from top of the tallest object within 300 feet to the South and West of the base of the tower to the lowest extension of the blade.

Viewscape - All of the land, water and sky seen from a point or along a series of points (a road or trail).

Wind Facility - All equipment, machinery and structures utilized in connection with wind-generated energy production, generation and sale, including related transmission, distribution, collection, storage or supply systems whether underground, on the surface, or overhead and other equipment or byproducts in connection therewith, including but not limited to, rotor, electrical generator and tower, anemometers (wind measuring equipment), transformers, substation, power lines, control and maintenance facilities, site access and service roads.

Wind Facility, Commercial – A wind facility, which is designed to generally supply less than fifty percent (50%) of its electrical output for use on site.

Wind Facility, Communal – A single wind facility, which is designed to supply electricity to more than one site or home-owner. It may be Commercial or Non-Commercial.

Wind Facility, Municipal (Community) – A publicly owned wind facility, for the benefit of the Town of Aquinnah, the Island of Martha's Vineyard or the Cape Light Co-op. It may be Commercial or Non-Commercial.

Wind Facility, Non-Commercial – A wind facility, which is designed to generally supply fifty percent (50%) or more of its electrical output for use on site.

Wind Monitoring or Meteorological ("test" or "met") Tower: A temporary tower equipped with devices to measure wind speeds and direction, used to determine how much wind power a site can be expected to generate.

16.6-4 SMALL WIND OVERLAY DISTRICT

A. Small Wind Facilities may be allowed anywhere in Town subject to the following requirements:

a) It is a Non-Commercial Wind facility and will serve the needs of a single property or a group of adjoining properties (a Small Communal Wind Facility).
b) It receives a special permit for siting from the PBPRC.
c) Only one wind tower shall be allowed per lot.
d) For the purposes of protecting against problems due to noise and collapse of the tower, freestanding Wind Facilities shall be located at least the blade tip height of the facility from the nearest residential or commercial structure and the nearest property line, except in the case of a Communal Wind Facility or Wind Facility Association, the nearest property line of an owner who is not associated with the facility. (Note that Conservation Commission Regulations may impose other setback requirements).
e) The Planning Board Plan Review Committee may reduce the above minimum setbacks as appropriate based on site specific considerations or if the nearest property line is a public right of way, if the project satisfies all other criteria for the granting of a special permit under the provisions of this section.
f) Freestanding Wind Facilities shall be located where they will not create or be subject to turbulence for/from nearby Wind Facilities.
g) For a Freestanding Wind Facility, the Tree Line Blade clearance shall be at least 30 feet.
h) Rooftop Wind Facilities shall not extend more than ten feet above the ridgeline of the structure to which it is attached.
i) No portion of the Wind Facility is located in the Special Places District except utility connections from the wind facility to the existing grid that can be buried in an existing public or private way without permanently changing the character of the Special Place.
j) Wind Facilities or portions thereof may, by Special Permit, be located in the Island Road District if done in a way that meets the goals of the District.
k) The Moshup Trail and Cliff DCPC's, the viewscapes identified in Map A and land within 1,000 feet of the coast line are areas preserved and protected by the Aquinnah Townwide DCPC by-law and Wind Facilities in these areas may be permitted if all of the following conditions are met:

I. The applicant is maximizing the reduction of fossil fuels on the property by improving efficiencies and reducing wasteful practices and there is still significant use of fossil fuels due to the unique nature of the property.

II. The applicant has explored or implemented other reasonable renewable energy technologies.

III. The applicant has explored the use of a Communal Wind Facility with inland or upland neighbors which would allow the Facility to be sited outside the protected area or as far away as possible from important views in order to diminish the visual impact of the structure.

IV. A migratory bird impact assessment and/or a habitat evaluation, if required by the PBPRC, shows the facility has no significant impact. In these protected areas, and in particular the Cliff DCPC, the PBPRC may require these studies be performed by a qualified agent at the expense of the applicant.

V. The **public benefit** of the facility outweighs the degree to which the goals of the Town of Aquinnah DCPC are not met.

These conditions apply to Wind Facilities that are visible in a primary viewscape shown on Map A or, in or visible from an open portion of a protected area (see siting guidelines). The PBPRC may waive any or all of conditions I through III for Wind Facilities located in a secondary viewscape shown in Map A or in the upland or heavily wooded portions of a protected area if the visual impact is not significant due to the siting and size of the facility, or if condition V is otherwise met.

B. Medium Municipal and Medium Non-Commercial Communal Wind Facilities may by special permit be located in this district if they meet the requirements listed in A above except they shall be located at least the blade tip height of the facility plus 20 feet from the nearest dwelling or commercial structure and nearest property line, except in the case of a Communal Wind Facility or Wind Facility Association, the nearest property line of an owner not associated with the facility. The Planning Board Plan Review Committee may reduce these minimum setbacks as appropriate based on site specific considerations or if the nearest property line is a public right of way, if the project satisfies all other criteria for the granting of a special permit under the provisions of this section.

C. Met Towers shall be permitted in this district subject to issuance of a special permit for a temporary structure and shall be located at least the blade tip height of the facility from the nearest dwelling or commercial structure and nearest property line, except in the case of a Communal Wind Facility or Wind Facility Association, the nearest property line of an owner not associated with the Met Tower. Guy wires and anchors shall not be located closer than 20 feet to a property line. The Planning Board Plan Review Committee may reduce these minimum setbacks as appropriate based on site specific considerations or if the nearest property line is a public right of way, if the project satisfies all other criteria for the granting of a special permit under the provisions of this section. Due to the temporary status of these facilities and the long term benefit of the information they provide, siting guidelines may be applied less rigorously to Met

Towers. (Note that Conservation Commission Regulations may impose other setback requirements).

16.6-5 LARGE AND MEDIUM WIND OVERLAY DISTRICT

16.6-5.1 Purpose I

Aquinnah, because of its location relative to the prevailing wind, is one of only two places on island that is windy enough to be an excellent location for Large Wind Facilities.However, due to the setback requirements for Large Wind Facilities most lots in town can not accommodate them. The purpose of this District is to create incentives for development of Large wind facilities that will utilize this unique resource to provide renewable energy to the Town of Aquinnah, the Island of Martha's Vineyard and the Cape Light Co-op. The establishment of the district:

a) Alerts interested parties that there is an area where the town allows these facilities, and
b) Provides a means for dealing with small lots by allowing multiple owners to pool lots or portions thereof through an association or other legal means.

16.6-5.2 Boundary Description

Medium and Large Wind Facilities may be allowed on properties shown on Map A subject to the requirements in 16.6-5.3. (This district is generally the upland, inland part of town, above 125 feet above sea level and close to the main power lines along State and Lobsterville Roads.) Since the town has no experience with Wind Facilities, the boundary of this district should be reviewed at a minimum of every 5 years to ensure it is consistent with the goals of this by-law. Applicants who believe they have sites that are suitable for large and medium Wind Facilities that are outside this district are encouraged to ask the PBPRC to consider if their site is consistent with the goals of this by-law and should be included in the district.

16.6-5.3 Requirements

A Medium or Large Non-Commercial Communal or Municipal Wind Facility may be allowed in this district if it meets the following requirements:

a) It receives a special permit for siting from the PBPRC.
b) For the purposes of protecting against problems due to noise and collapse of the tower, Large Wind Facilities shall be set back a distance equal to 1.5 times the overall blade tip height from the nearest existing residential or commercial structure and nearest property line, except in the case of a Communal Wind Facility or Wind Facility Association, the nearest property line of an owner not associated with the facility. (Note that Conservation Commission Regulations may impose other setback requirements).
c) For the purposes of protecting against problems due to noise and collapse of the tower, Medium Wind Facilities Shall be located at least the blade tip height of the facility plus 20 feet from the nearest dwelling or commercial structure and nearest property line, except in the case of a Communal Wind Facility or Wind Facility Association, the nearest property line of an owner not associated with the facility. (Note that Conservation Commission Regulations may impose other setback requirements).

d) The Planning Board Plan Review Committee may reduce the above minimum setbacks as appropriate based on site-specific considerations, or if the nearest property line is a public way, if the project satisfies all other criteria for the granting of a special permit under the provisions of this section.
e) Large and Medium Wind Facility towers shall be located where they will not create or be subject to turbulence for/from nearby Wind Facilities.
f) Tree Line Blade clearance shall be at least 30 feet.
g) No portion of the Wind Facility is located in the Special Places District except utility connections from the wind facility to the existing grid that can be buried in an existing public or private way without permanently changing the character of the Special Place.
h) Wind Facilities or portions thereof may, by Special Permit, be located in the Island Road District if done in a way that meets the goals of the District.
i) A migratory bird impact assessment and/or a habitat evaluation, if required by the PBPRC, shows the facility has no significant impact. The PBPRC depending on the location of the facility may require these studies be performed by a qualified agent at the expense of the applicant.

16.6-5.4 Commercial Wind Facilities

The primary goal of this district is to create publicly owned Municipal Wind Facilities that provide renewable energy to the Town of Aquinnah, the Island of Martha's Vineyard and the Cape Light Co-op. Applications for privately owned Commercial Large and Medium Wind Facilities will be considered only when the PBPRC declares Public and/or Municipal Facilities have reached their maximum potential, or if an applicant for a private Commercial Facility presents a plan that the PBPRC determines is of significant public benefit to the Town of Aquinnah, the Island of Martha's Vineyard and the Cape Light Co-op. These facilities must also meet the requirements of section 16.6-5.3.

16.6-6 GENERAL REQUIREMENTS FOR THE INSTALLATION OF ANY WIND FACILITY.

16.6-6.1 Compliance with Laws, Ordinances and Regulations. The construction and operation of all such proposed Wind Facilities shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, environmental, electrical, communications and aviation requirements. The safety of the design and construction of any Wind Facility, including towers and associated equipment and the compatibility of the tower structure with the rotors and other components shall be certified by the manufacturer or by an Engineer Licensed by the State of Massachusetts.

1**6.6-6.2** A Wind Facility must meet the minimum technical requirements for renewable energy installations funded by the Massachusetts Small Renewables Initiative to the extent they apply (copies are available at Town Hall),

16.6-6.3 Safety wires shall be installed on the turnbuckles on guy wires of Met Towers and guyed wind facility towers.

16.6-6.4 All wind facilities shall be equipped with manual and automatic cut-out wind speed controls. The rotor and cut-out wind speed control shall be certified by the manufacturer or by an Engineer Licensed by the State of Massachusetts.

16.6-6.5 All towers shall be monopole, guyed poles or guyed tilt ups and if they require external climbing apparatus, they shall have either tower climbing apparatus located not closer than twelve (12) feet to the ground or be un-climbable by design for the first twelve (12) feet.

16.6-6.6 Wind facilities sited on top of, or attached to and extending above the ridge line of, an existing structure shall comply with all applicable provisions of the latest version of the Uniform Building Code. Certification by an Engineer Licensed by the State of Massachusetts shall be required.

16.6-6.7 The owner/applicant of any wind facility shall provide, as part of the submissions for review by the Planning Board for a Special Permit, proof of liability insurance that specifically addresses the installation, use and maintenance of the wind facility.

16.6-6.8 Any ground level equipment associated with the facility shall be camouflaged or screened. Buildings shall be surrounded by buffers of dense tree growth and understory vegetation in all directions to create an effective year-round visual buffer. Trees and vegetation may be existing on the property or installed as part of the proposed facility or a combination of both. The Planning Board Plan Review Committee shall approve the types of trees and plant materials and depth of the needed buffer based on site conditions. Equipment shelters for wind facilities shall be designed to be consistent with the traditional architecture of the Town.

16.6-6.9 All utility connections from the wind facility to the existing grid shall be underground.

16.6-6.10 Clearing of natural vegetation shall be limited to that which is necessary for the construction and maintenance of the wind facility.

16.6-6.11 Night lighting shall be prohibited unless required by state or federal law and shall be the minimum necessary. There shall be total cutoff of all light at the property lines of the parcel to be developed, and foot-candle measurements at the property line shall be 0.0 initial foot-candles when measured at grade. For communal facilities and associations the cut off shall be at the property line of an owner not in the association or tied to the communal system.

16.6-6.12 Wind Facilities shall be painted a neutral, non-reflective blue or grey color designed to blend with the sky and clouds.

16.6-6.13 Signage at the wind facility is limited to no trespassing, danger and emergency contact information signs. All signs shall comply with the requirements of the Town's sign regulations. Wind Facilities shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the wind energy facility which shall not be displayed above the tree line

16.6-6.14 A public safety plan with emergency procedures and a contact person is to be filed with police and fire department before the facility is erected.

16.6-6.15

A. Wind Facilities and associated equipment shall conform to the following provisions. A source of sound will be considered to be violating these regulations if the source:

(a) Increases the broadband sound level by more than 10 dB(A) above ambient, or

(b) Produces a “pure tone” condition – when an octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.

These criteria are measured both at the property line and at the nearest inhabited residence. Ambient is defined as the background A-weighted sound level that is exceeded 90% of the time measured during equipment hours. An analysis prepared by a qualified engineer shall be presented to demonstrate compliance with these noise standards.

B. The PBPRC, shall determine whether such measurements shall be made at the property line or at the nearest inhabited residence.

16.6-6.16 Wind Facilities shall be sited in a manner that does not result in significant shadowing or flicker impacts. The applicant has the burden of proving that this effect does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation.

16.6-6.17 The applicant shall present the financing plan/cash flow model for the Facility and its expected energy/carbon savings under expected case, best case and worst case conditions.

16.6-6.18 A Wind Facility shall create no TV interference or derogation of public good..

16.6-6.19 A wind facility shall be operated and maintained in sound working order in conformance with the manufacturer's specifications at all times. This maintenance shall include the physical appearance so that the facility does not become unsightly. A copy of the manufacturer's specifications and instructions must be submitted with any application for review by the Planning Board Plan Review Committee and the Building Inspector.

16.6-6.20 Nothing may be attached to the exterior of the tower or nacelle (e.g. a personal wireless service or radio antenna) without a special permit unless it directly relates to the basic operation or maintenance of the facility.

16.6-7 APPLICATION REQUIREMENTS

16.6-7.1 Pre-Application Conference

Prior to the submission of an application for a Special Permit under this regulation, the applicant is strongly encouraged to meet with the SPGA at a public meeting to discuss the proposed wind energy conversion facility in general terms and to clarify the filing requirements. The SPGA shall meet with an applicant under this regulation within twenty-one (21) days following a written request submitted to the SPGA and the Town Clerk. If the SPGA fails to meet with an applicant who has requested such a meeting within twenty-one (21) days of said request and said meeting has not been postponed due to mutual agreement, the applicant may proceed with a Special Permit application under this regulation without need for a pre-application conference.

16.6-7.2 Pre-Application Filing Requirements

The purpose of the conference is to inform the PBPRC as to the preliminary nature of the proposed wind energy conversion facility. As such, no formal filings are required for the pre-application conference. However, the applicant is encouraged to prepare sufficient preliminary architectural and/or engineering drawings to inform the PBPRC of the location of the proposed facility, as well as its scale and overall design.

16.6-7.3 Filing Requirements.

In addition to the standard filing requirements for Special Permits, the following information must be submitted:

.01 LOCATION MAP

A copy of a portion of the most recent USGS Quadrangle Map, at a scale of 1:25,000, showing the proposed facility site, including turbine sites, and the area within at least two miles of the facility. An assessors map of the site should be included.

.02 SITE PLAN

A 1 inch equals 200 feet plan of the proposed wind facility site, with contour intervals of no more than 10 feet, showing the following:

a) Property lines for the site parcel and adjacent parcels within 300 feet. Include the distance from base of the wind facility tower to the nearest property line.
b) Outline of all existing buildings, including purpose identification, on site parcel and all adjacent parcels within 500 feet. Include distances from wind facility base of tower to each building shown.
c) Location of all public and private roads on site parcel and parcels within 300 feet.
d) Existing areas of tree cover, including average height of trees, on the site parcel and parcels within 300 feet.
e) Proposed location and design of wind facility, including turbines, ground equipment, accessory structures, transmission infrastructure, access, fencing, exterior lighting, etc.
f) Location of viewpoints reference to below in next section.

.03 VISUALIZATIONS

The Planning Board Plan Review Committee will determine various sight lines, including from the nearest building with a view of the facility, for pre- and post-construction view representations. Sites for these shall be from public road and waterways within a two-mile radius of the facility.

a) View representations shall be in color and shall include actual preconstruction photographs and post construction simulations of the height and breadth of the wind facility superimposed on photographs of existing views.
b) All view representations will include existing, or proposed, buildings or tree coverage.
c) Include description of the technical procedures followed in producing the visualization (distances, angles, lens, etc.).

.04 LANDSCAPE PLAN

A plan indicating all proposed changes to the landscape of the site, including temporary or permanent roads or driveways, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures. Lighting shall

conform to the Aquinnah lighting by-law as well as the provisions of the Aquinnah Energy DCPC section 16.6-6.11.

.05 OPERATION AND MAINTENANCE PLAN

The applicant shall submit a plan for maintenance of access roads and drainage as well as general procedures for the operational maintenance of the wind facility.

.06 COMPLIANCE DOCUMENTS

The applicant will provide with the application:

a) A description of the financial surety required herein.
b) Proof of liability insurance.
c) A statement listing existing and maximum projected noise levels from the wind facility as measured per section 16.6-615.
d) Documentation of compliance with the MTC Minimum Technical Requirements for Wind Installations if applicable.
e) The financing plan/cash flow model for the Facility, and its estimated energy/carbon savings, under expected case, best case and worst case conditions..
f) The manufacturer's maintenance instructions and specifications for the wind facility.
g) A professionally conducted energy audit not more than 5 years old per Section 16.4.

16.6-7.4 Professional Fees

The Town may retain a technical expert/consultant to verify information presented by the applicant. The cost for such a technical expert/consultant will be at the expense of the applicant in accordance with MGL Chapter 44 Section G.

16.6-8 DECOMMISSIONING

16.6-8.1 Condemnation

A. Upon a finding by the Building Inspector that the facility has been abandoned or has been left in disrepair or has not been maintained in accordance with its approved maintenance plan, the owner of the facility or land on which it is located, shall be notified in writing by certified mail that the facility must be brought up to standard.

B. If required repairs or maintenance are not accomplished within 45 days, the facility may be deemed condemned and may be removed from the site by the Town within 90 days at the expense of the property owner. At the request of the property owner, the Planning Board Plan Review Committee, with the concurrence of the building inspector, may allow extensions of these time periods.

16.6-8.2 Removal Requirements

A. Any wind facility which has reached at the end of its useful life or has been abandoned must be removed. When the facility is scheduled to be decommissioned, the applicant

will notify the town by certified mail of the proposed date of discontinued operations and plans for removal.

B. Prior to any removal activities a Request for Determination of Applicability must be made to the Aquinnah Conservation Commission, which will review the proposed plan and may make conditions or recommendations or require the filing of a Notice of Intent

C. Decommissioning shall consist of:

1) Physical removal of all wind turbines, towers, machinery, equipment, structures, security barriers, transmission lines, and accessory structures from the site.
2) Disposal of all solid and hazardous waste in accordance with all local and state waste disposal regulations.
3) Stabilization or re-vegetation of the site as necessary to minimize erosion. The Planning Board Plan Review Committee may allow the owner to leave existing landscaping or below grade foundations in order to minimize erosion and disruption to vegetation.

16.6-8.3 Abandonment

A facility shall be considered abandoned if it fails to operate for 12 months without the written consent of the Planning Board Plan Review Committee. If the owner fails to remove the facility within ninety days of a finding of abandonment by the town, the town shall have the authority to enter the property and physically remove the facility at the **expense of the property owner**.

16.6-8.4 Surety

The Planning Board Plan Review Committee may require the applicant to post a bond at the time of construction to cover costs for removal in the event that the town must remove the facility. The value of the bond will be determined by the Board, taking into consideration all of the requirements of section 16.6 -8. The applicant shall submit a fully inclusive estimate of the costs associated with removal prepared by qualified engineer. The amount shall include a mechanism for cost of living adjustment. An incentive factor of 1.5 shall be applied to all bonds to ensure compliance and adequate funds for the towns remove the facility at prevailing wages.

16.6-9 SITING GUIDELINES

16.6-9.1 Overview

A. Traditional siting guidelines in Aquinnah have aimed to minimize the visibility of manmade structures as viewed from the water and any public way by controlling their height, screening and keeping them within the treeline so their mass won't be starkly silhouetted against the sky. Obviously, a different set of guidelines must be used for Wind Facilities because, in the interest of reducing consumption of fossil fuels, they will be quite visible from the water and some public ways. These guidelines are designed to minimize **the intrusion** of their visibility on the enjoyment of our open spaces and scenic areas.

B. Just like the guidelines for buildings, the strategy is to keep development away from the coast and open and highly visible areas and put it inland and upland in heavily wooded areas which provide a vegetated buffer from public ways. The natural dense tree canopy will make it difficult to see Wind Facilities from many parts of our public ways. They will be visible from the water, and some open and highly visible areas, but small wind facilities should be back far enough and painted so that they don't dominate the skyline or loom overhead and large Wind Facilities will be concentrated even further back along State Road to achieve the same objective.

C. These guidelines also introduce the concept of a protected viewscape. When protecting views by limiting the height and location of buildings, a special overlay district or an open and highly visible designation was sufficient, but because Wind Facilities can be hundreds of feet tall, they could be outside an overlay district or in a heavily wooded area and still fragment or dominate a view we are trying to protect. Consequently, this by-law protects specific views of land, water and sky from specific locations; viewscapes.

D. Finally, these guidelines are also designed to see that Wind Facilities are sited to maximize their energy generating capacity or economic efficiency as long as they don't impact the cultural and natural environment of the town.

16.6-9.2 Siting Guidelines

A. Wind Faciltities shall be sited to minimize their intrusion on the enjoyment of the town's open spaces as viewed from any public way and to not interrupt or fragment important views including the viewscapes on Map A and the lookout at the Aquinnah Cliffs. Views from public water bodies are not to be considered unless the Wind Facility is within 1,000 feet of the shoreline. Before granting a special permit for a Wind Facility the Planning Board Plan Review Committee must consider the following guidelines:

1. Wind Facilities shall not be located in open and highly visible areas unless the **public benefit** of the facility outweighs the degree to which the goals of the Town of Aquinnah DCPC are not met.
2. Wind Facilities shall not intrude on views from public ways in open areas unless the **public benefit** of the facility outweighs the degree to which the goals of the Town of Aquinnah DCPC are not met. Wind Facilities shall be located far enough away from the public way that they don't dominate, interrupt or fragment the view or loom over the public way. Instead, they should blend in with the background and not immediately draw the eye to them
3. Wind Facilities shall not be located in the Moshup Trail and Cliff DCPC's, the viewscapes identified in Map A and land within 1,000 feet of the coast line without meeting the additional requirements of section 16.6-4Ak.
4. Views from the water shall be considered when evaluating the visual impact of Wind Facilities within 1,000 of the shoreline. The views of East Pasture from Menemsha Pond and the views of the cliffs and lighthouse from the near shore waters off the head should not be interrupted or disturbed by Wind Facilities unless the **public benefit** of the facility outweighs the degree to which the goals of the Town of Aquinnah DCPC are not met.
5. All towers shall be monopole, guyed poles or guyed tilt ups.

6. Wind Facilities shall be painted a neutral, non-reflective blue or grey color designed to blend with the sky and clouds.
7. All equipment necessary for monitoring and operation of the Wind facility shall be contained within the tower. If this is unfeasible, ancillary equipment may be located outside the tower or behind a year-round landscape or vegetated buffer. The PBPRC shall determine the appropriate width and materials for this buffer.
8. Preferred sites are those that have existing roadways and/or transmission facilities in close proximity to avoid clearing of vegetation for these purposes.
9. Site should minimize, or require minimal clearing, especially of old growth trees for the facility including, roadways and power interconnects.
10. Roadways should be winding, not straight, to help minimize visibility of ground based portions of the facility. If the size of the facility requires a straighter road, vegetative or other screening must be employed.
11. Land clearing for the purposes of reducing wind turbulence in the vicinity of the turbine is prohibited, unless the PBPRC finds it is essential to operational requirements, does not adversely affect the natural resources in the area and if adequate erosion controls are proposed.
12. Site should maximize screening capability of existing vegetation close to public ways.
13. To take advantage of higher winds with a shorter tower wind facilities should be sited up the grade or at the top of a slope/ridge where possible.
14. Other considerations: Does the site provide adequate/efficient generating capacity? Does the site rate high as a generating site compared to other areas of town? Is the ability to reach optimal generating conditions impaired by setbacks and the nature of the lot?

16.6-10 TERM OF SPECIAL PERMIT

To ensure that the goals of this by-law are met in the face of evolving technology, special permits for Wind Facilities will expire at the end of the useful life of the facility or 15 years, whichever is less. At that time, the facility shall be removed by the applicant or if the existing facility is still operable and efficient the special permit may be renewed by the PBPRC for a term of no more than 5 years at a time. A new permit is required to install a replacement system. Request for renewal must be submitted at least 180 days prior to expiration of the special permit. Submitting a renewal request shall allow for continued operation of the facility until the PBPRC acts. At the end of that period (including extensions and renewals), the wind facility shall be removed as required by this bylaw.

16.7 (RESERVED)

16.8 (RESERVED)

16.9 (RESERVED)

16.10 (RESERVED)

16.11 (RESERVED)

16.12 SWIMMING POOLS AND HOT TUBS

16.12-1 Swimming Pools. All heated swimming pools, including those indoors, shall have a solar, geothermal or other non-fossil fuel consuming system as their primary energy source for heat. As of the effective date of this bylaw, all existing heated swimming pools including those indoors, that do not have a solar, geothermal or other non-fossil fuel consuming system as their primary energy source for heat, are grandfathered until the heat generating part of the system needs to be replaced.

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16.12-2 Hot Tubs. All hot tubs, including those indoors, shall have a solar, geothermal or other non-fossil fuel consuming system as their primary energy source for heat. Until stand alone non-fossil fuel hot water systems are feasible for hot tubs in this region, this section shall only apply to new hot tubs that can be tied into a system serving the home or swimming pool. As of the effective date of this bylaw, all existing hot tubs, including those indoors, that do not have a solar, geothermal or other non-fossil fuel consuming system as their primary energy source for heat, are grandfathered until replaced by a new tub.