

Township of Bridgehampton  
Sanilac County, Michigan

**Ordinance 05-1  
Wind Powered Electricity Generating Towers**

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To establish a process for creation of districts within Bridgehampton Township suitable for the location of wind energy facilities, and for the review and permitting of such facilities. Also amending special land uses, land use and dwelling limitations in Articles 3 and 9.

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At a regular meeting of the Township Board on the \_\_\_\_\_-day of \_\_\_\_\_, 2005

*The Township of Bridgehampton Ordains:*

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**ZO – 3.10.00 Land Use and Dwelling Limitations**

~~No more than one (1) use of a parcel of land and no more than one (1) dwelling on a parcel of land shall be permitted without the approval of the Planning Commission as a special land use. The minimum curtilage shall be required for any such Special Land Use. Accessory structures shall conform in size to the requirements of the applicable use districts. ♦ [Each residence must meet the minimum lot requirements as set forth in Article 9 of this ordinance]~~

Deleted: ¶

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**ZO-9.03.00 AGRICULTURAL DISTRICTS (A)**

9.03.01 Use Types

~~(B)(2)(a) — A specified time period not to exceed ten (10) years. ♦ [The Bridgehampton Township Planning Commission shall have the authority to limit the duration within this district.]~~

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**ZO-9.04.00 RESIDENTIAL DISTRICTS (R)**

9.04.01 Use Types

~~(B)(2)(a) — A specified time period not to exceed ten (10) years. ♦ [The Bridgehampton Township Planning Commission shall have the authority to limit the duration within this district.]~~

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**ZO 9.08.00 ENERGY FACILITIES**

The purpose and intent of this ordinance is to establish a process for the creation of districts within Bridgehampton Township that are suitable for the location of wind energy facilities, for the review and permitting of such facilities, to protect the health, welfare, safety, and quality of life of the general public, and to ensure compatible land uses in the vicinity of the areas affected by such facilities. Wind energy facilities shall include any mechanical device such as a wind charger, windmill or wind turbine which is designed and used to convert wind energy into a form of useful energy for sale. Except for 9.08.03 (c) Setbacks, this Ordinance shall not apply to any wind energy facility consisting of less than two wind turbines, any wind energy facility not in commercial use, nor any wind energy facility consisting entirely of wind turbines with a total height that does not exceed 100 feet and nameplate capacity that does not exceed 100 kilowatts

### **ZO 9.08.01 Conflicting Regulations**

Whenever any provisions of this Ordinance imposes more stringent requirements, regulations, restrictions or limitations than are imposed or required by the provisions of any other law or ordinance, the provisions of this Ordinance shall govern.

### **ZO 9.08.02 Definitions**

**FAA** shall mean the Federal Aviation Administration.

**Hub Height** shall mean the distance from ground level to the center of the turbine hub or horizontal rotor shaft.

**Michigan Tall Structures Act (Act 259 of 1959)** shall govern the height of structures in proximity to airport related uses and is included as a standard in this Article by reference.

**Wind Energy Conversion Facility (WECF)** or Wind Energy Facility shall mean an electricity generating facility consisting of two or more wind turbines under common ownership or operation control, and includes substations, Met Towers, cables/wires and other buildings accessory to such facility, whose main purpose is to supply electricity to off-site customers(s).

**Wind Energy Facility Site Permit** is a permit issued upon compliance with standards of this Ordinance.

**Wind Energy Facility Site Plan Review** is the process used to review a proposed Wind Energy Facility.

**Wind Energy Overlay Zoning Districts** are districts created by the Bridgehampton Township Board, upon receiving a recommendation of the Planning Commission, by identifying specific areas that are appropriate for development of Wind Energy Facilities and that have specific regulations for unique uses, structures or conditions.

**Wind Turbine** shall mean a wind energy conversion system which converts wind energy into electricity through the use of a wind turbine generator, and includes the turbine, blade, tower, base and pad transformer, if any; provided that such a system shall only be a wind turbine for purposes of this Ordinance if it both has a total height greater than 100 feet and nameplate capacity of greater than 100 kilowatts.

### **ZO 9.08.03 Development Uses, Requirements and Restrictions**

All listed non-discretionary permitted uses in the underlying zoning district of this overlay zone are permitted. All listed conditional or special land uses in the underlying zoning district of the overlay zone are subject to conditional use or special land use permit process and review. Wind powered electricity generating sources and wind farms are permitted uses in a Wind Energy Facility Overlay Zoning District, subject to the additional requirements and restrictions set forth in Section 9.08.04.

#### **ZO 9.08.04 Permitted Zones**

In any Wind Energy Overlay Zoning District, the Planning Commission shall have the power to grant a conditional permit to allow a Wind Energy Facility, subject to the restrictions contained in this Ordinance. This conditional permit, if denied by the Planning Commission, may be appealed in the same manner as a special land use permit.

#### **ZO 9.08.05 Wind Energy Facilities**

The following shall be included and/or be utilized as standards when preparing, submitting and reviewing an application for a Wind Energy Facility. A site plan which differs from these standards can be approved only upon the review of the Planning Commission and approval of the Township Board that the modification is in the best interest of the Township and applicant.

**A. Avian Analysis.** The applicant shall submit an avian study to assess the potential impact of proposed Wind Energy Facilities upon bird and bat species. The avian study shall at a minimum report on a literature survey for threatened and endangered species, and any information on critical flyways. The applicant must identify any plans for post-construction monitoring or studies. The analysis should also include an explanation of potential impacts and propose a mitigation plan, if necessary.

**B. Visual Appearance; Lighting; Powerlines.** The applicant shall use measures to reduce the visual impact of wind turbines to the extent possible, utilizing the following:

- 1) Wind turbines shall be mounted on tubular, monopole towers, painted a non-reflective, non-obtrusive color. No lattice towers are allowed. The appearance of turbines, towers and buildings shall be maintained throughout the life of the wind energy facility pursuant to industry standards (i.e., condition of exterior paint, signs, landscaping, etc). A certified registered engineer and authorized factory representative shall certify that the construction and installation of the wind energy conversion system meets or exceeds the manufacturer=s construction and installation standards.
- 2) The design of the Wind Energy Facility=s buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend facility components with the natural setting and then existing environment. No bold colors will be allowed.
- 3) Wind Energy Facilities shall not be artificially lighted, except to the extent required by the FAA or other applicable authority, or otherwise necessary for the reasonable safety and security thereof.
- 4) Wind turbines shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the Wind Energy Facility. No graffiti will be allowed.
- 5) The electrical collection system shall be placed underground within the interior of each parcel at a depth designed to accommodate the existing agricultural land use to the maximum extent practicable. The collection system may be placed overhead adjacent to County roadways, near substations or points of interconnection to the electric grid or in other areas as necessary. Any new substation shall be located at a distance of no less than one thousand (1,000) feet from the nearest residence, school, hospital, church or public library. A lesser setback may be approved if the intent of this Ordinance would be better served thereby. A reduced setback shall be considered only with written approval from the owner of the inhabited structure.

**C. Setbacks, Separation and Security.** The following setbacks and separation requirements shall apply to all wind turbines within a Wind Energy Facility; provided, however, that a reduction to the standard setbacks and separation requirements may be permitted if the intent of this Ordinance would be better served thereby.

1) Inhabited structures: Each wind turbine shall be set back from the nearest school, hospital, church, public library, village or municipal limit, a distance no less than the greater of (a) two (2) times its Hub Height or (b) one thousand (1,000) feet. Each wind turbine shall be set back from the nearest residence not less than one and one half (1.5) times the Hub Height. A lesser setback may be approved if the intent of this Ordinance would be better served thereby. A reduced setback shall be considered only with written approval from the owner of the inhabited structure.

2) Property line setbacks: Excepting locations of public roads (see below), drain rights-of-way and parcels with inhabited structures, wind turbines shall not be subject to a property line setback. Along the border of the Wind Energy Facility Overlay District, there shall be a setback distance equal to one and one half (1.5) the Hub Height of the wind turbine. Wind turbines and access roads shall be located so as to minimize the disruption to agricultural activity and, therefore, the location of towers and access routes is encouraged along internal property lines. Where a turbine location is proposed nearer to an internal property line than one and one-half (1.5) times the Hub Height of the wind turbine, an easement shall be established on the abutting parcel(s).

3) Public Roads: Each wind turbine shall be set back from the nearest public road a distance no less than 1.5 times its Hub Height, determined at the nearest boundary of the underlying right-of-way for such public road.

4) Communication and electrical lines: Each wind turbine shall be set back from the nearest above-ground public electric power line or telephone line a distance no less than 1.5 times its Hub Height, determined from the existing power line or telephone line.

5) Tower separation: Turbine/tower separation shall be based on 1) industry standards, 2) manufacturer recommendation, and 3) the characteristics of the particular site location. At a minimum, there shall be a separation between towers of not less than three (3) times the turbine (rotor) diameter; and, the Wind Energy Facility shall be designed to minimize disruption to farmland activity. Documents shall be submitted by the developer/manufacturer confirming specifications for turbine/tower separation.

6) Following the completion of construction, the applicant shall certify that all construction is completed pursuant to the Wind Energy Site Permit and, in addition, that appropriate security will be in place to restrict unauthorized access to Wind Energy Facilities.

**D. Wind Turbine/Tower Height (Total Height):** The total height of a wind turbine shall be the distance to the center of the hub of the wind turbine plus the distance to the tip of the turbine blade at its height point. Generally, the Hub Height shall be limited to 275 feet from existing grade unless modification of this maximum height is approved pursuant to Section 5.1 of this Article. The applicant shall demonstrate compliance with the Michigan Tall Structures Act (Act 259 of 1959, as amended) and FAA guidelines as part of the approval process.

***E. Noise***

1) Audible noise or the sound pressure level from the operation of the Wind Energy Facility shall not exceed fifty (50) dBA, or the ambient sound pressure level plus five (5) dBA, whichever is greater, for more than ten percent (10%) of any hour, measured at any residence, school, hospital, church or public library existing on the date of approval of any Wind Energy Facility Site Permit. The applicant shall be able to provide sound pressure level measurements from a reasonable number of sampled locations at the perimeter and in the interior of the Wind Energy Facility to demonstrate compliance with this standard.

2) In the event audible noise from the operation of the Wind Energy Facility contains a steady pure tone, the standards for audible noise set forth in subparagraph a) of this subsection shall be reduced by five (5) dBA. A pure tone is defined to exist if the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequencies of five hundred (500) Hz and above, by eight (8) dBA for center frequencies between one hundred and sixty (160) Hz and four hundred (400) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred and twenty-five (125) Hz.

3) Ambient noise levels shall be measured at a building's exterior of potentially affected existing residences, schools, hospitals, churches and public libraries. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of wind-generated noise at the microphone. Ambient noise level measurements may be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operations, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location.

4) Any noise level falling between two whole decibels shall be the lower of the two.

5) In the event the noise levels resulting from the Wind Energy Facility exceed the criteria listed above, a waiver to said levels may be approved, provided that the following has been accomplished:

a) Written consent from the affected property owner(s) has been obtained stating that they are aware of the Wind Energy Facility and the noise limitations imposed by this Article, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed; and

b) If the applicant wishes the waiver to apply to succeeding owners of the property, a permanent noise impact easement must be recorded in the Sanilac County Register of Deeds office that describes the benefited and burdened properties and that advises all subsequent owners of the burdened property that noise levels in excess of those otherwise permitted by the ordinance may exist on or at the burdened property.

***G. Minimum Ground Clearance***

The blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of not less than fifty feet.

**H. Signal Interference**

No Large-Scale Wind Energy Facility shall be installed in any location where its proximity with existing fixed broadcast, retransmission, or reception antennas for radio, television, or wireless phone or other personal communication systems would produce electromagnetic interference with signal transmission or reception. No Large-Scale Wind Energy Facility shall be installed in any location along the major axis of an existing microwave communications link where its operation is likely to produce electromagnetic interference in the link=s operation. Notwithstanding the foregoing, an approval may be issued under this Article if Applicant demonstrates an ability to remedy any interference described above with the use of signal repeaters or other proven mitigation measures.

**I. Safety**

- 1) All collection system wiring shall comply with all applicable safety and stray voltage standards.
- 2) Wind Turbine towers shall not be climbable on the exterior.
- 3) All access doors to wind turbine towers and electrical equipment shall be lockable.
- 4) Appropriate warning signs shall be placed on wind turbine towers, electrical equipment, and Wind Energy Facility entrances.
- 5) Projects shall be designed and operated in compliance with all applicable provisions of local, state, and federal laws and regulations.
- 6) The applicant shall be responsible for maintenance of the access roads. At the landowner’s discretion, the entrance of each access road from the public right of way shall be gated, with wings as appropriate, to discourage trespassers.

**ZO 9.08.06 Overlay Zone**

**A. Overlay Zoning District.** The Wind Energy Facility Overlay Zoning District shall consist of the parcels identified in Appendix A and as depicted on the Bridgehampton Township Zoning Map.

**B. Purpose, Adoption of Districts** The purpose of the Wind Energy Facility Overlay Zoning District is to regulate the placement and operation of wind energy generation equipment in the district, and to provide a procedure by which wind energy projects may be addressed by the Planning Commission. The public hearing process for wind energy facilities within a Wind Energy Facility Overlay Zoning District shall be held prior to the adoption of this Ordinance. [May need to modify this, if process for adding to overlay zone is amended below.]

**ZO 9.08.07 Site Plan Review**

Wind Energy Conversion Facilities shall not be located, constructed, erected, altered, or used without first obtaining a Wind Energy Facilities Permit pursuant to this Ordinance.

An applicant proposing a Wind Energy Facility must submit the following site plan materials:

1. Survey of the property showing existing features such as contours, large trees, buildings, structures, roads (rights-of-way), utility easements, land use, zoning district, ownership of property, and vehicular access;
2. Plan(s) showing the location of proposed turbine towers, underground and overhead wiring (including the depth of underground wiring), new drainage facilities (if any), access roads (including width), substations and accessory structures;
3. A description of the routes to be used by construction and delivery vehicles and of any road improvements that will be necessary in the Township to accommodate construction vehicles, equipment or other deliveries, and an agreement or bond which guarantees the repair of damage to public roads and other areas caused by construction of the Wind Energy Facility;
4. Engineering data concerning construction of the tower and its base or foundation, which must be engineered and constructed in such a manner that upon removal of said tower, the soil will be restored to its original condition to a depth of four (4) feet; Deleted: six (6)
5. Anticipated construction schedule; and
6. Description of operations, including anticipated regular and unscheduled maintenance.

Any application to construct a Wind Energy Facility within a Wind Energy Overlay Zone shall be approved by Planning Commission without further hearings.

The applicant must also obtain a permit from the Sanilac County Road Commission and/or Michigan Department of Transportation (MDOT) for permission to connect access roads to existing County roads and from the Sanilac County Drain Commission for any culverts or other drainage facilities.

**ZO 9.08.08 Application Fee**

An applicant for a Wind Energy Facility shall remit an application fee and a fee per megawatt of nameplate capacity to the Township included with all applications in the amount specified in the fee schedule. This schedule is based on the cost to the Township of the review which may be adjusted from time to time.

**ZO 9.08.09 Decommissioning**

The applicant shall submit a plan describing the intended disposition of the alternative energy project at the end of its useful life and shall describe any agreement with the landowner regarding equipment removal upon termination of the lease. Any tower/turbine left unused or inoperable for over 24 months would be deemed to be disposed of by developer/applicant. The land must be returned to its original state. Concrete bases must be removed four feet below ground level with appropriate drainage and filled with like soil that was removed. The applicant shall post a performance bond or equivalent financial instrument for decommissioning. The bond shall be in favor of Bridgehampton Township and may be provided jointly as a single instrument for multiple Townships within a single wind farm, provided that any such single instrument shall be in an amount of at least \$1 million and shall contain a replenishment obligation. Deleted: six

**ZO 9.08.10 Application Procedures**

A developer/operator of any alternative energy source within the Overlay Zone shall follow the following procedures for application for land use permit to construct alternative energy structures.

a. Make application for special land use permit for alternative energy structures to the Planning Commission with the required in section ZO- 9.08.06 (Overlay zone). The application for special land use permit for alternative energy structures will be accompanied by the required fees and information as requested in this ordinance.

b. The Planning Commission will review the application in a public meeting which shall be posted for at least 14 days prior to the meeting in the print media which covers Bridgehampton Township and by posting the same at the township hall. No public hearing shall be held for alternative energy structure within the overlay zone.

**ZO 9.08.11 Responsibility for Erosion and Flooding**

Any erosion or flooding of property as a result of the construction of alternative energy structures or access roads whether in the Overlay Zone or not is the responsibility of the developer/owner of the structures.

**APPENDIX A**

The following parcels are part of the Overlay District:

Sections 4, 5, 8, 9, 15, 16, 17, 19, 20, 21, 22, 23, 26, 27, 28 and 36

Sections 34 and 35 (not including the Village of Carsonville) located to the East of the H & E Railroad track.

Sections 6, 7, 18 and 33 east of H & E. Railroad (except for residential area).

The West half of Sections 24 and 25.

This ordinance shall be published within 15 days of enactment and shall become effective 30 days after publication.

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## Planning Commission Resolution

Recommendation for adoption of Zoning Ordinance or ZO Amendment \_\_\_\_\_

Notice of hearing having been published in the \_\_\_\_\_ on \_\_\_\_\_, the Bridgehampton Township Planning Commission conducted a hearing on September 28, 2005 to take public comments and to reviewed the reasonableness and necessity of the ordinance or amendment.

Motion to recommend enactment and forward to Sanilac County Planning Commission:

Motion by: \_\_\_\_\_ Second by: \_\_\_\_\_  
\_\_\_\_\_

Yeas: \_\_\_\_\_ Nays: \_\_\_\_\_  
\_\_\_\_\_

Absent: \_\_\_\_\_ Abstain: \_\_\_\_\_  
\_\_\_\_\_

Motion carried

\_\_\_\_\_, Secretary  
\_\_\_\_\_, Chairman

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## Sanilac County Planning Commission

At a meeting of the Sanilac County Planning Commission held in the County Building on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, this Commission reviewed the foregoing Zoning ordinance or Amendment(s) and

- Approved**
- Approved** with recommendations
- Disapproved** with comments.

Dated: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_, Secretary

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## Bridgehampton Township Board

Ordinance \_\_\_\_\_ having been recommended for enactment by the Planning Commission on \_\_\_\_\_ and reviewed by the County Planning Commission on \_\_\_\_\_

Motion by: \_\_\_\_\_ Second by: \_\_\_\_\_  
\_\_\_\_\_

Yeas: \_\_\_\_\_ Nays: \_\_\_\_\_  
\_\_\_\_\_

Absent: \_\_\_\_\_ Abstain: \_\_\_\_\_  
\_\_\_\_\_

Ordinance enacted, to be published within 15 days and effective 30 days after publication.

\_\_\_\_\_  
, Supervisor

\_\_\_\_\_  
, Clerk

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**Proof of Publication**

Notice of adoption of the foregoing ordinance, effective date, place and time to obtain copies and a synopsis of the regulatory effect was published in the \_\_\_\_\_ on \_\_\_\_\_.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Township Clerk

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