

ORDINANCE NO. 2010-2

AN ORDINANCE TO OVERSEE THE PERMITTING OF WIND ENERGY SYSTEMS INCLUDING DEFINITIONS, STANDARDS, PERMIT REQUIREMENTS, ABANDONMENT, MODIFICATIONS AND WAIVERS, SEVERABILITY AND EFFECTIVE DATE FOR THE TOWNSHIP OF LOWHILL, LEHIGH COUNTY, PA

WHEREAS, the Township of Lowhill desires to permit wind energy systems and to establish standards and permit requirements for such systems.

NOW, THEREFORE, The Board of Supervisors of the Township of Lowhill, Lehigh County, Pennsylvania hereby ordains:

SECTION I - Title

This ordinance shall be referred to as the Lowhill Township Wind Energy System Ordinance.

SECTION II - Authority

This ordinance is adopted pursuant to Lowhill Township's authority under the Second Class Township Code (53 P.S. §66601 et. seq.)

SECTION III - Purpose

The purpose of this Ordinance is to regulate the placement, construction, modification, public safety and quality of life issues associated with wind energy systems while promoting the safe, effective and efficient use of wind energy systems.

SECTION IV - Definitions

- 1) "Owner" means the individual or entity that intends to own and operate the wind energy system in accordance with this ordinance
- 2) "Total Height" means the vertical distance from the ground level to the uppermost tip of a wind collection surface when the tip is at its highest point.
- 3) "Tower" means the structure that supports the wind generator.
- 4) "Overspeed Controls" are mechanisms used to limit the speed of the wind collection surface to below design limits in the event of excessive wind velocities or failure of the electrical components.
- 5) "Wind Collection Surface" is the component of the wind energy system that converts the kinetic energy of the wind into rotational energy.
- 6) "Wind Generator" means the wind collection surface and associated mechanical and electrical components mounted on the top of the tower or structure
- 7) "Wind Energy System" means equipment that converts and stores or transfers energy from the wind into other mechanical or electrical forms of energy. This equipment includes any base, blade, wind collection surface, foundation, generator, nacelle, rotor,

tower, transformer, vane, wire, inverter, batteries, buildings or other components used in the system.

- 8) All other terms shall be as defined in the Lowhill Township Zoning Ordinance , as amended.

SECTION V - Permitted Use

A Wind Energy System shall be permitted as an accessory use in all zoning districts.

SECTION VI - General Requirements

- 1) Setbacks – Wind energy system components shall not be closer to property lines, public streets, and above ground utilities than:
A. Tower - 110% of the Total Height
- 2) Lot size must be equal to or greater than 2 acres per wind generator. A maximum of one wind generator may be permitted per tax parcel.
- 3) Wind towers may not be located in front yards (as defined by the Lowhill Township Zoning Ordinance).
- 4) The minimum height of the wind collection surface at its lowest point shall be at least 25 feet above the ground or foundation, whichever is higher.
- 5) The Tower shall be designed and installed so as to not provide step bolts, rungs, ladders, or other accessible means of climbing the tower for a minimum height of 15 feet above the ground or foundation, whichever is higher.
- 6) The Wind Energy System must comply with the Pennsylvania Uniform Construction Code, Act 45 of 1999 as amended, and the regulations adopted by the Department of Labor and Industry. The Wind Energy System shall also comply with all applicable Codes and Ordinances as adopted by Lowhill Township.
- 7) The design of the Wind Energy System shall conform to applicable industry standards, including those of the American National Standards Institute. The Applicant shall submit certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, Gernanishcer Lloyd Wind Energies, or other similar certifying organizations.
- 8) A Wind Generator or Tower shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration. Lighting of other parts of the wind energy system shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties.
- 9) The Wind Generator and Tower shall remain painted or finished in the manufacturer's default color option or finish that was originally applied by the manufacturer, if applicable, or a non-reflective, non-obtrusive, single color. All signs shall be restricted to the reasonable identification of the manufacturer, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with the wind energy system and shall not be visible from any lot line. Signage that may be construed as advertising is prohibited.
- 10) Wind Energy systems are to be used primarily for power on the Owner's property(s). Excess energy may only be sold or otherwise transferred back to a power company regulated by the Public Utility Commission.

- 11) Nonelectrical windmills such as, but not limited to, water pumpers, must be designed and constructed to comply with the mechanical and siting requirements of this ordinance.
- 12) Any modifications made to the wind energy system after a permit is issued must comply with the requirements of this ordinance and be submitted to Lowhill Township for record.
- 13) At a minimum, at least one sign shall be posted at the base of the tower warning of electrical shock or high voltage.
- 14) Wind energy systems designed to be mounted on existing buildings are not permitted.
- 15) Guyed wind energy systems are not permitted.

SECTION VII - Permit Applications:

- 1) A building permit shall be required for the installation of a wind energy system. The building permit shall be issued in accordance with the Lowhill Township Zoning Ordinance and any other Lowhill Township Ordinances relating to the issuance of building permits.
- 2) The application for a building permit for a wind energy system must be accompanied by the fee required for wind energy systems.
- 3) The following information must be submitted with the permit application:
 - A. Plot plan drawing with dimensions showing the following information:
 - a. Property lines and physical dimensions of the property
 - b. Right of ways
 - c. Easements
 - d. Locations and outline dimensions of existing structures on the property
 - e. All overhead public utility lines
 - f. Proposed locations for all wind energy system structural and support components
 - g. Reference circle(s) around each wind energy system component showing the required setback for the component (e.g. a 100' total height system would have a 110' radius circle drawn around the tower)
 - h. Noise receptors, such as but not limited to, residences and commercial establishments for a minimum distance of 3 times the Total Height of the system. Medical facilities, schools, libraries, places of worship, parks, and other similar facilities where quiet is important or where noise could be a special nuisance within one quarter (1/4) mile of the proposed System.
 - i. Manufacturer, make, model, capacity, and physical description, including but not limited to, the type, size and minimum elevation of wind collection surface, the tower height, the materials of construction for structural components, the tower type, and the color of the proposed tower and wind generator cover.
 - j. A photo of a wind energy system of the same model that is the subject of the application adjacent to a building or some other object illustrating scale.

- B. Design information stamped by a professional engineer(s) who is free of any potential conflicts of interest and specializes in the applicable disciplines involved showing the following:
- a. List of engineering standards, including the applicable section numbers from those standards, used for the design, fabrication and installation of the proposed System. Engineering Standards that apply strictly to the on stream performance and power generation are not included in this requirement. Standards that apply to the mechanical integrity and structural integrity of the system, such as, but not limited to, blade integrity, wind loads, tower materials, support materials, foundation materials, etc. are included.
 - b. Project specific design criteria.
 - c. Materials of construction for the critical structural components such as, but not limited to, concrete mix, anchor bolts, rebar, tower and tower base, and structural bolting.
 - d. Detailed foundation drawings showing dimensions, rebar, embedded support structures, anchor bolts, maximum slope of excavations, etc.
 - e. Description of over speed protection and braking systems
 - f. Noise characteristics and levels for the proposed system at full range of operating conditions.
- C. The owner shall provide written evidence that the provider of electric utility service to the site has been informed and has approved interconnection of the Wind Energy System to the local grid unless the owner intends, and so states on the application, that the system will not be connected to the electric grid.
- D. The address and contact information for the owner, operator and applicant, as applicable.
- 4) Any permit issued pursuant to this ordinance shall expire if the wind energy system is not installed and functioning within 12 months from the date the permit is issued.

SECTION VIII - Nuisance Issues:

1. Noise levels generated by Wind Energy Systems shall not exceed 50dB.
2. The landowner shall locate the Wind Energy System to prevent shadow flicker for more than one (1) hour per day on any occupied building, residence, or public park not on the owner's property. Shadow flicker on facilities such as, but not limited to, medical facilities, schools, libraries, places of worship shall be prohibited.

SECTION IX - Safety Requirements:

1. The Wind Energy System shall be equipped with at least two separate automatic braking systems, governing systems, feathering systems or passive stall control not subject to a common mode failure to prevent the rotational speed of the wind

collection surface from exceeding the design limits. All braking systems shall be designed to operate in a fail safe mode.

2. The wind generator shall be equipped with vibration sensor designed to activate the braking system.
3. No television, radio, communication antenna or disc, or other attachment that affects wind or mechanical loading may be affixed or otherwise made a part of a Wind Energy Generation System that was not part of the original design or conflicts with any requirements of this article.

SECTION X - Abandonment:

1. If a wind energy system is not maintained in operational and safe condition or fails to generate power for one year or more, the wind energy system will be considered abandoned and all above grade hardware shall be removed by the owner at the owner's expense.

SECTION XI - Penalties:

Any person/owner in violation of any provision of this Ordinance shall, upon conviction thereof, be sentenced to pay a fine or penalty. The fine or penalty shall not be less than \$300.00, nor more than \$1,000.00 plus costs, and/or any person in violation may be sentenced to imprisonment for a term not to exceed thirty (30) days. Every day that a violation of this Ordinance continues shall constitute a separate offense. This penalty section is enacted pursuant to the Second Class Township Code, 53 P.S. §66601 et. seq., for regulation of building, property maintenance, safety, health, fire, and noise purposes.

SECTION XII – Appeals:

This ordinance is adopted pursuant to the Township's police power and is hereby declared not to be related to zoning and land planning and any person aggrieved by the application, enforcement or other adjudication made pursuant to the terms of this ordinance may appeal within thirty (30) days of said adjudication for a hearing before the Board of Supervisors of Lowhill Township in accordance with the applicable portions of the Pennsylvania Local Agency Law (2 Pa.C.S. Section 551 et seq.).

SECTION XIII Waivers:

The provisions of this ordinance are intended as a minimum standard for the protection of public health, safety and welfare. Any person desiring a waiver of the requirements of this ordinance shall make application for such waiver in writing, identifying the section of the ordinance from which a waiver is requested, the reasons for the waiver, and the alternative proposed. If the literal compliance with any mandatory provision of this ordinance is shown by the applicant, to the satisfaction of the Board of Supervisors, to be unreasonable or to cause undue hardship as it applies to a particular property, or if the applicant shows that an alternative proposal will allow for equal or better results, the Board of Supervisors may grant a waiver from such mandatory provisions so that substantial justice may be done and the public interest secured while permitting the reasonable utilization of the property. However, the granting of a waiver shall not have the effect of making null and void the intent and

purpose of this ordinance. In granting waivers, the Board of Supervisors may impose such conditions as will, in its judgment, secure substantially the objectives of the standards and requirements of this ordinance.

SECTION XIV - Severability:

If a court of competent jurisdiction declares any provision of this Ordinance to be invalid in whole or in part, the effect of such decision shall be limited to those provisions expressly stated in the decision to be invalid, and all other provisions of this Ordinance shall continue to be separately and fully effective.

SECTION XV - Effective Date:

This Ordinance shall be effective five (5) days after the date of passage.

DULY ORDAINED AND ENACTED by the Board of Supervisors of the Township of Lowhill, Lehigh County, Pennsylvania, in lawful session assembled this 7th day of October, 2010.

TOWNSHIP OF LOWHILL

By: Eugene R. Weiner
Eugene R. Weiner, Chairman

By: Richard B. Hughes
Richard B. Hughes, Vice Chairman

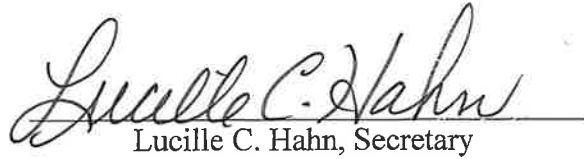
By: Frank R. Dengler
Frank R. Dengler, Supervisor

ATTEST:

Lucille C. Hahn
Lucille C. Hahn, Secretary
Lowhill Township

I, Lucille C. Hahn, Secretary of the Board of Supervisors of the Township of Lowhill, do hereby certify that the above and foregoing is a true and correct copy of an Ordinance adopted at a meeting of the Supervisors aforesaid convened and held on this the 7th day of October, 2010.

Witness my hand and seal of said Township this 7th day of October, 2010.


Lucille C. Hahn, Secretary