## VALLEY TOWNSHIP MONTOUR COUNTY, PENNSYLVANIA

### ORDINANCE NO.

# AN ORDINANCE AMENDING THE VALLEY TOWNSHIP ZONING ORDINANCE IN ORDER TO PROVIDE FOR THE INSTALLATION AND USE OF WIND ENERGY FACILITIES WITHIN THE TOWNSHIP.

WHEREAS, the Board of Supervisors of Valley Township recognizes the potential

benefits to be derived from utilization of renewable and non-consumptive energy sources; and

WHEREAS, the Board of Supervisors desires to make appropriate provision for the safe

installation and use of wind energy facilities within the Township by amending the Valley

Township Zoning Ordinance in order to do so.

NOW, THEREFORE, it is hereby ENACTED and ORDAINED by the Board of

Supervisors of Valley Township as follows:

Section 1. Section 1301, relating to Definitions, is hereby amended by inclusion of the

following terms:

**RESIDENTIAL WIND ENERGY SYSTEM.** A wind energy conversion system consisting of a wind turbine and associated control or conversion electronics, which has a rated capacity of not more than 10 kW and which is intended to primarily reduce on-site consumption of utility power. A system is considered a residential wind energy system only if it supplies electrical solely for on-site use, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed for on-site use may be used by the utility company.

**WIND ENERGY FACILITY.** An electrical generation facility, whose Valley purpose is to supply electricity, consisting of one or more Wind Turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities. This term does not include stand-alone Wind Turbines constructed primarily for residential or farm use.

**WIND TURBINE.** A wind energy conversion system that converts wind energy into electricity through the use of a wind turbine generator and includes the nacelle, rotor, tower and pad turbine, if any.

Section 2. Section 301, relating to Use Regulations and Dimensional Requirements, is hereby amended by inclusion of the following provisions:

A. A Residential Wind Energy System shall be an accessory use permitted by special exception in the R-1 Low Density Residential District.

B. A Residential Wind Energy System shall be a permitted accessory use in the A-R Agricultural Rural District.

C. A Wind Energy Facility shall be permitted as a conditional use in the

A-R Agricultural Rural District.

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Section 3. Article 4, relating to Supplementary Use Regulations, is hereby amended by the addition of Section 427 which shall provide as follows:

### 427 RESIDENTIAL WIND ENERGY SYSTEMS

A Wind Turbine installed and operated as part of a Residential Wind Energy System shall be required to comply with the specific regulations set forth below.

A. A Wind Turbine shall be installed on a self-supporting tower and shall be set back from any occupied building, property line or public road, a distance of not less than 1.5 times the height from the surface of the tower foundation to the highest point of the turbine rotor plane.

B. A Wind Turbine shall be a non-obtrusive color such as white, off-white or

C. A Wind Turbine shall not be artificially lighted and shall not display advertising, except for reasonable identification of the turbine manufacturer.

D. A Wind Turbine shall not be climbable up to fifteen (15) feet above grade level.

F. A Wind Turbine shall have a maximum height of sixty (60) feet above grade level.

G. A Wind Turbine shall be equipped with manual (electronic or mechanical) and automatic overspeed controls to limit the blade rotation speed to within the design limits of the Residential Wind Energy System.

H. A Wind Turbine must be approved under an emerging technology program such as the California Energy Commission, IEC, or any other small wind certification program recognized by the American Wind Energy Association (AWEA) or the U.S. Department of Energy.

I. The owner of any property on which a Wind Turbine is located shall be required to completely remove any Wind Turbine which is not used to generate electricity for a continuous period of twelve (12) months.

Section 4. Article 4, relating to Supplementary Regulations for Selected Uses, is hereby amended by the addition of Section 431 which shall provide as follows:

#### **431 WIND ENERGY FACILITIES**

A Wind Energy Facility installed and operated primarily for the purpose of commercial electrical power generation shall be required to comply with the specific regulations set forth below:

A. APPLICATION REQUIREMENTS.

1. The application shall be accompanied by a narrative describing the proposed Wind Energy Facility, including an overview of the project; the project location; the approximate generating capacity of the facility; the approximate number, representative types and height or range of heights of the Wind Turbines to be constructed, including their generating capacity and dimensions; and a description of all ancillary facilities.

2... The application shall be accompanied by a site plan showing the boundary lines of the parcel; zoning setback lines; access road and turnout locations; location of each proposed Wind Turbine; substation(s); electrical cabling from the Wind Energy Facility to the substation(s); ancillary equipment; buildings and other structures, including meteorological towers; and transmission lines.

#### **B. DESIGN AND INSTALLATION**

1. Uniform Construction Code. To the extent applicable, the Wind Energy Facility shall comply with the Pennsylvania Uniform Construction Code, Act 45 of 1999 as amended, and the regulations of the Pennsylvania Department of Labor and Industry.

2. Design Safety Certification. The design of the Wind Energy Facility 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, Germanischer Lloyd Wind Energies, or other similar certifying organizations.

3. Controls and Brakes. All Wind Energy Facilities shall be equipped with a redundant braking system. This includes both aerodynamic overspeed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for overspeed protection.

4. Electrical Components. All electrical components of the Wind Energy Facility shall conform to relevant and applicable local, state and national codes, and relevant and applicable international standards.

5. Visual Appearance. Wind Turbines shall be a non-obtrusive color, such as white, off-white or gray, and shall not display advertising except for reasonable identification of the turbine manufacturer and owner/operator of the Wind Energy Facility. Wind Energy Facilities shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety. On-site transmission and power lines between Wind Turbines shall, to the maximum extent practicable, be placed underground.

6. Warnings. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations. Visible reflective markers, such as flags, reflectors or tape, shall be placed on the anchor points of guy wires and along the guy lines up to a height of ten (10) feet from the ground.

7. Security. Wind Turbines shall not be climbable up to fifteen (15) feet above grade level. All access doors to Wind Turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by unauthorized persons.

8. Setbacks. Wind Turbines shall be set back from any occupied building on the Wind Energy Facility site, any property line, or any public road, a distance of not less than 1.5 times the height from the surface of the tower foundation to the highest point of the turbine rotor plane. The setback distance shall be measured from the nearest point of the tower foundation to the nearest point of the occupied building, property line or public road.

Wind Turbines shall be set back from any occupied building on any property adjoining the Wind Energy Facility site a distance of not less than five (5) times the distance from the surface of the tower foundation to the height of the Wind Turbine hub to which the blade is attached (Hub Height). The setback distance shall be measured from the nearest point of the tower foundation to the nearest point of the occupied building.

9. Noise and Shadow Flicker. Audible sound from a Wind Energy Facility shall not exceed fifty-five (55) dBA as measured at the exterior of any occupied building on any property adjoining the Wind Energy Facility site. Methods for measuring and reporting acoustic emissions from Wind Turbines and the Wind Energy Facility shall be equal to or exceed the minimum standards for precision described in the AWEA Standard 2.1 -1989 titled "Procedures for the Measurement and Reporting of Acoustic Emissions from Wind Turbine Generation Systems Volume I: First Tier."

The owner/operator of the Wind Energy Facility shall make reasonable efforts to minimize shadow flicker to any occupied building on any property in the vicinity of the Wind Energy Facility site.

10. Signal Interference. The owner/operator of the Wind Energy Facility shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television or similar signals to any property in the vicinity of the Wind Energy Facility and shall mitigate all harm to such signals caused by the Wind Energy Facility.

11. The owner/operator of the Wind Energy Facility shall be required to maintain general liability insurance covering bodily injury and property damage with coverage limits of not less than One Million Dollars (\$1,000,000.00) per occurrence and One Million Dollars (\$1,000,000.00) in the aggregate. Certificates evidencing such coverage shall be delivered to the Township upon request.

12. Decommissioning. The owner/operator of the Wind Energy Facility shall, at its expense, complete decommissioning of the Wind Energy Facility, or any individual Wind Turbine, within twelve (12) months after the end of the useful life of the Facility or any individual Turbine. The Facility or individual Turbine shall be presumed to be at the end of its useful life if no electricity is generated thereby for a continuous period of twelve (12) months.

The applicant shall submit with its application an estimate prepared by a Professional Engineer as to the total cost of decommissioning the proposed Wind Energy Facility without regard to salvage value of the equipment. Decommissioning shall include removal of Wind Turbines, buildings, cabling, electrical components, roads, foundations to a depth of thirty-six inches (36"), and any other associated facilities, followed by grading and seeding of all disturbed earth. The owner/operator of the Wind Energy Facility shall be required to submit similar estimates to the Township at five (5) year intervals from the date of issuance of the zoning permit for the Facility.

Prior to issuance of the zoning permit for the Facility, the owner/operator of the Wind Energy Facility shall deliver to the Township decommissioning funds, equal to the amount of the estimated cost of decommissioning, in the form of a performance bond payable to the Township or its assigns issued by a registered insurance or bonding company authorized to do business within the Commonwealth. Such bond shall be maintained by the owner/operator of the Wind Energy Facility and shall be replaced, if necessary, at five (5) year intervals in order to assure that the amount thereof remains equal to the most recent estimate of the cost of decommissioning.

If the owner/operator of the Wind Energy Facility fails to complete decommissioning of the Facility site within the twelve (12) month period described above, the owner/operator shall be deemed to have consented to the entry upon the premises by the Township or its assigns for the

purpose of completing the decommissioning of the Facility site and the Township or its assigns may take such measures as necessary to complete decommissioning of the site. In that event, the Township or its assigns shall be entitled to recover the costs incurred as a result of the decommissioning of the site from the surety of the aforementioned performance bond and, if necessary, through the sale of any salvageable materials from the site.

ENACTED and ORDAINED by the Board of Supervisors of Valley Township this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

ATTEST:

# VALLEY TOWNSHIP

Judy Achy, Secretary

BY:\_\_\_\_\_ Gary L. Derr, Chairperson