ORDINANCE NO. 2009- 3

AN ORDINANCE OF THE TOWNSHIP OF PENN, BERKS COUNTY, PENNSYLVANIA, AMENDING THE PENN TOWNSHIP ZONING ORDINANCE, ORDINANCE NO. 2008-05, TO PROVIDE FOR WIND, GEOTHERMAL AND HYDROELECTRICITY ENERGY HARVESTING

WHEREAS, the Penn Township Board of Supervisors is vested with the responsibility for protecting the public's health, safety and welfare pursuant to the Second Class Township Code;

WHEREAS, the Penn Township Board of Supervisors is authorized pursuant to the Second Class Township Code and the Municipalities Planning Code to regulate land uses within the boundaries of Penn Township and to prohibit others pursuant to its police powers through the Penn Township Zoning Ordinance Number 2008-05 enacted on October 27, 2008;

WHEREAS, the Penn Township Board of Supervisors recognizes that it is necessary to provide guidelines for the harvesting of wind, geothermal and hydroelectric energy to protect and support the health and safety of the people and economy of Penn Township;

WHEREAS, the Penn Township Board of Supervisors shall plan for the development of energy resource sites so that development occurs in a timely and orderly manner, with mitigation of any adverse environmental impacts that cannot be avoided; and

Whereas, the Penn Township Board of Supervisors shall coordinate planning of energy projects with public and private developers and with state and federal agencies, including the Department of Environmental Protection.

NOW THEREFORE BE IT ENACTED and ORDAINED by the Board of Supervisors of the Township of Penn, Berks County, Pennsylvania that the Penn Township Zoning Ordinance of 2008 shall be amended as follows:

- SECTION 1. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 412, entitled "Uses Permitted by Right" in the A-Agricultural District, by adding a new Subsection 13 to read as follows:
- 13. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 2. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 413, entitled "Uses Permitted by Special Exception" in the A Agricultural District, by adding a new Subsection 12 to read as follows:
 - 12. Alternative Energy Uses, in accordance with Article XI.

- SECTION 3. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 422, entitled "Uses Permitted by Right" in the P Preservation District, by adding a new Subsection 13 to read as follows:
- 13. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 4. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 423, entitled "Uses Permitted by Special Exception" in the P-Preservation District, by adding a new Subsection 4 to read as follows:
 - 4. Alternative Energy Uses, in accordance with Article XI.
- SECTION 5. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 432, entitled "Uses Permitted by Right" in the L-Low Density Residential District, by adding a new Subsection 12 to read as follows:
- 12. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 6. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 433, entitled "Uses Permitted by Special Exception" in the L-Low Density Residential District, by adding a new Subsection 9 to read as follows:
 - 9. Alternative Energy Uses, in accordance with Article XI.
- SECTION 7. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 442, entitled "Uses Permitted by Right" in the H High Density Residential District, by adding a new Subsection 11 to read as follows:
- 11. Wind Turbine Use where such use is an accessory use to a use permitted by right, by conditional use, or by special exception in this district, in accordance with Article XI.
- SECTION 8. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 444, entitled "Uses Permitted by Special Exception" in the H-High Density Residential District, by adding a new Subsection 4 to read as follows:
 - 4. Alternative Energy Uses, in accordance with Article XI.
- SECTION 9. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 452, entitled "Uses Permitted by Right" in the S Special Use District, by adding a new Subsection 2 to read as follows:

- 2. Wind Turbine Use where such use is an accessory use to a use permitted by right, by special exception, or by conditional use in this district, in accordance with Article XI.
- SECTION 10. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 452.1, entitled "Uses Permitted by Special Exception" in the S Special Use District, by adding a new Subsection 2 to read as follows:
 - 2. Alternative Energy Uses, in accordance with Article XI.
- SECTION 11. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 457, entitled "Uses Permitted by Right" in the O Open Space and Recreation District, by adding a new Subsection 2 to read as follows:
- 2. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 12. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 457.1, entitled "Uses Permitted by Special Exception" in the O Open Space and Recreation District, by adding a new Subsection 10 to read as follows:
 - 10. Alternative Energy Uses, in accordance with Article XI.
- SECTION 13. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 502, entitled "Uses Permitted by Right" in the C-1 Mixed Commercial-Residential Agricultural District, by adding a new Subsection 19 to read as follows:
- 19. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 14. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 503, entitled "Uses Permitted by Special Exception" in the C-1 Mixed Commercial-Residential Agricultural District, by adding a new Subsection 5 to read as follows:
 - 5. Alternative Energy Uses, in accordance with Article XI.
- SECTION 15. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 512, entitled "Uses Permitted by Right" in the C-2 Commercial District, by adding a new Subsection 22 to read as follows:
- 22. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.

- SECTION 16. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 513, entitled "Uses Permitted by Special Exception" in the C-2 Commercial District, by adding a new Subsection 10 to read as follows:
 - 10. Alternative Energy Uses, in accordance with Article XI.
- SECTION 17. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 522, entitled "Uses Permitted by Right" in the I Light Industrial District, by adding a new Subsection 13 to read as follows:
- 13. Wind Turbine Use where such use is an accessory use to a use permitted by right or by special exception in this district, in accordance with Article XI.
- SECTION 18. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 523, entitled "Uses Permitted by Special Exception" in the I Light Industrial District, by adding a new Subsection 2 to read as follows:
 - 2. Alternative Energy Uses, in accordance with Article XI.
- <u>SECTION 19.</u> Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by adding a new Article XI entitled "Alternative Energy" to read as follows:

ARTICLE XI ALTERNATIVE ENERGY

PART 1 Wind Energy

STAND ALONE WIND TURBINES AND WIND ENERGY FACILITIES

Section 1101. Title

Section 1102. Purpose

Section 1103. Definitions

Section 1104. Applicability

Section 1105. Special Exception Requirement

Section 1106. Special Exception Application

Section 1107. Design and Installation

Section 1108. Setbacks

Section 1109. Waiver of Setbacks

Section 1110. Use of Public Roads

Section 1111. Local Emergency Services

Section 1112. Noise and Shadow Flicker

Section 1113. Waiver of Noise and Shadow Flicker Provisions

Section 1114. Signal Interference

Section 1115. Liability Insurance

Section 1116. Decommissioning

Section 1117. Public Inquiries and Complaints Regarding Wind Energy Facilities

PART 2 Hydropower

Section 1201. Purpose

Section 1202. Definitions

Section 1203. Special Exception Application for Hydropower Project

Section 1204. Special Exception Application Fee

Section 1205. Special Exception Criteria

Section 1206. Authority to Attach Conditions to Special Exceptions

PART 1 WIND ENERGY

STAND ALONE WIND TURBINES AND WIND ENERGY FACILITIES

Section 1101. TITLE

This Part shall be known as the Stand Alone Wind Turbines and Wind Energy Facilities, Part 1, Article XI of the Penn Township Zoning Ordinance.

Section 1102. PURPOSE

The purpose of this Part is to provide for the construction, operation and decommissioning of Wind Turbines and Wind Energy Facilities in Penn Township, subject to reasonable conditions that will protect the public health, safety and welfare.

Section 1103. DEFINITIONS

Applicant - The person or entity filing an application under this Ordinance.

<u>Facility Owner</u> – The entity or entities having an equity interest in the Wind Energy Facility, including their respective successors and assigns.

<u>Hub Height</u> – The distance measured from the surface of the tower foundation to the height of the Wind Turbine hub, to which the blade is attached.

Occupied Building – A residence, school, hospital, church, public library or other building used for public gathering that is occupied or in use when the special exception application is submitted.

Operator – The entity responsible for the day-to-day operation and maintenance of the Wind Energy Facility.

Ordinance - The Penn Township Zoning Ordinance of 2008, as amended.

Non-Participating Landowner – Any landowner except those on whose property all or a portion of a Wind Energy Facility is located pursuant to an agreement with the Facility Owner or Operator.

<u>Property Owner</u> – The owner of property on which the Wind Turbine is located.

<u>Turbine Height</u> — The distance measured from the surface of the ground elevation directly beneath the turbine to the highest point of the turbine rotor plane.

Wind Turbine – A wind energy conversion system, also referred to as a windmill, that converts wind energy into electricity through the use of a wind turbine generator, and includes the nacelle, rotor, tower, and pad transformer, if any.

<u>Wind Energy Facility</u> – An electric generating facility, whose main purpose is to commercially 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.

Section 1104. APPLICABILITY

- 1. This Ordinance applies to all private, non-commercial Wind Turbines and Wind Energy Facilities proposed to be constructed after the effective date of the Ordinance.¹
- 2. Wind Turbines and Wind Energy Facilities constructed prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided, that any physical modification to an existing Wind Turbine or Wind Energy Facility that materially alters the size, type and number of Wind Turbines or other equipment shall require the approval of a special exception under this Ordinance.
- 3. In addition to this Article XI, all Wind Turbines and Wind Energy Facilities in Penn Township shall also be regulated by other applicable Articles of the Penn Township Zoning Ordinance, including but not limited to Article VI.1, General Regulations; Article VIII, Administration and Enforcement; and Article IX, Zoning Hearing Board.

¹ Editor's Note: Ordinance 2009-___, effective _____.

Section 1105. SPECIAL EXCEPTION REQUIREMENT

- 1. Except as provided in paragraph 2 of this section, no Wind Turbine, Wind Energy Facility, or addition of a Wind Turbine or Wind Energy Facility to an existing property with a Wind Turbine or Wind Energy Facility, shall be constructed or located within Penn Township unless a special exception has been approved by the Zoning Hearing Board under this Ordinance.
- 2. A Wind Turbine, or the addition of a Wind Turbine to an existing property with a Wind Turbine, shall be permitted without the requirement for a special exception to be applied for and approved, where such use would be an accessory use to a use permitted by right or by special exception in the district where the use is located and where the Wind Turbine would comply with all of the substantive requirements of this Article XI (other than the requirement to apply for and receive approval of a special exception), and the turbine height will not exceed forty feet (40'). Furthermore, no zoning permit shall be required for the installation of one (1) Wind Turbine per parcel with a turbine diameter of less than thirty-six inches (36") and located no more than ten feet (10') above the ground elevation or sixty inches (60") above highest point of an existing structure to which the Wind Turbine is attached.
- 3. The special exception application shall be accompanied with a fee in the amount set by the Board of Supervisors from time to time.
- 4. Any physical modification to an existing and permitted Wind Turbine or Wind Energy Facility that materially alters the size, type and number of Wind Turbines or other equipment shall require a new special exception application under this Ordinance. Like-kind replacements shall not require a new special exception application.

Section 1106. SPECIAL EXCEPTION APPLICATION

- 1. The special exception application shall demonstrate that the proposed Wind Turbine or Wind Energy Facility will comply with this Ordinance.
- 2. Among other things, the application shall contain the following:
 - a. A narrative describing the proposed Wind Turbine or Wind Energy Facility, including an overview of the project; the project location; the approximate generating capacity of the Wind Turbine or Wind Energy Facility; the approximate number, representative types and height or range of heights of Wind Turbines to be constructed, including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities.
 - b. An affidavit or similar evidence of intent from the property owner and any Facility Owner or Operator, to apply for necessary permits for construction and operation of the Wind Turbine or Wind Energy Facility.

- c. Identification of the properties on which the proposed Wind Turbine or Wind Energy Facility will be located, and the properties adjacent to where the Wind Turbine or Wind Energy Facility will be located.
- d. A site plan showing the planned location of each Wind Turbine, property lines, setback lines, access road and turnout locations, substation(s), electrical cabling from the Wind Turbine or Wind Energy Facility to the substation(s), ancillary equipment, buildings, and structures, including permanent meteorological towers, associated transmission lines, and layout of all structures within the geographical boundaries of any applicable setback.
- e. Documents related to decommissioning including a schedule for decommissioning.
- f. Other relevant studies, reports, certifications and approvals as may be reasonably requested by the Zoning Officer to ensure compliance with this Ordinance, local, state and federal laws.

Section 1107. DESIGN AND INSTALLATION

- 1. Design Safety Certification: The design of the Wind Turbine or Wind Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute. In the case of Wind Energy Facilities, the Applicant shall submit certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, Germanisheer Llloyd Wind Energies, or other similar certifying organizations.
- 2. Uniform Construction Code: To the extent applicable, Wind Turbines and Wind Energy Facilities shall comply with the Pennsylvania Uniform Construction Code, Act 45 of 1999 as amended and the regulations adopted by the Department of Labor and Industry. In no instance may the height of the Wind Turbine exceed two-hundred (200) feet from the ground elevation beneath the turbine.
- 3. Controls and Brakes: All Wind Turbines shall be equipped with a redundant braking system. This includes both aerodynamic over-speed 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 over-speed protection.
- 4. Electrical Components: All electrical components of the Wind Turbine or Wind Energy Facility shall conform to relevant and applicable local, state and national codes, and relevant and applicable international standards.
- 5. Visual Appearance; Power Lines

- a. Wind Turbines and Wind Energy Facilities shall be a non-obtrusive color such as white, off-white or gray.
- b. Wind Turbines and 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.
- c. Wind Turbines and Wind Energy Facilities shall not display advertising, except for reasonable identification of the turbine manufacturer, owner, Facility Owner, and Operator.
- d. On-site transmission and power lines between Wind Turbines, and between components of a Wind Energy Facility, shall, to the maximum extent practicable, be placed underground.

6. Warnings

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

7. Climb Prevention/Locks

- a. Wind Turbines and Wind Energy Facilities shall not be climbable up to fifteen feet (15') above ground surface.
- b. All access doors to Wind Turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.

Section 1108. SETBACKS

1. Occupied Buildings

- a. Wind Turbines shall be set back from the nearest Occupied Building a distance of not less than the maximum setback requirements for that zoning classification where the turbine is located or 1.1 times the Turbine Height, whichever is greater. These setback distances shall be measured from the center of the Wind Turbine base or nearest base ground surface to the nearest point on the foundation of the Occupied Building.
- b. Wind Turbines shall be set back from the nearest Occupied Building located on a Non-participating Landowner's property a distance of not less than five (5) times the Hub

Height, as measured from the center of the Wind Turbine base or nearest base ground surface to the nearest point on the foundation of the Occupied Building.

- 2. Property lines: All Wind Turbines shall be set back from the nearest property line a distance of not less than the maximum setback requirements for that zoning classification where the turbine is located or 1.1 times the Turbine Height, whichever is greater. The setback distance shall be measured to the center of the Wind Turbine base or nearest base ground surface.
- 3. Public Roads: All Wind Turbines shall be set back from the nearest public road a distance of not less than 1.1 times the Turbine Height, as measured from the right-of-way line of the nearest public road to the center of the Wind Turbine base or nearest base ground surface.
- 4. Utility Easements. All Wind Turbines shall be set back from the nearest utility easement, including gas lines and power lines, a distance of not less than 1.1 times the Turbine Height, as measured from the easement to the center of the Wind Turbine base or nearest base ground surface.
- 5. Private Streets and Right-Of-Way. All Wind Turbines shall be set back from the nearest private street and right-of-way used for access to easements a distance of not less than 1.1 times the Turbine Height, as measured from the right-of-way line of the nearest private street or right-of-way easement to the center of the Wind Turbine base or nearest base ground surface.

Section 1109. WAIVER OF SETBACKS

- 1. At the request of the applicant, the Zoning Hearing Board may grant partial waivers of the setback requirements under Sections 1108 (1)(b) (Occupied Buildings on Non-participating Landowner's property), 1108 (2) (Property Lines) and 1108 (3) (Public Roads) of this ordinance where it has determined that literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question and provided that such waiver will not be contrary to the public interest.
- 2. The applicant shall submit a signed notarized document from the property owner(s) that they are in agreement with the applicant's request for a waiver of the setback requirements under Section 1108 (1)(b) and 1108 (2) of this Ordinance. This document shall stipulate that the property owner(s) know of the setback requirements required by this Ordinance, describes how the proposed Wind Turbine is not in compliance, and state that consent is granted for the Wind Energy Facility to not be setback as required by this Ordinance.
- 3. Any such waiver shall be recorded in the Recorder of Deeds Office for Berks County. The waiver shall describe the properties benefited and burdened, and advise all subsequent purchasers of the burdened property that the waiver of setback shall run with the land and may forever burden the subject property.

Section 1110. <u>USE OF PUBLIC ROADS</u>

- 1. The Applicant shall identify all state and local public roads to be used within Penn Township to transport equipment and parts for construction, operation or maintenance of the Wind Turbine or Wind Energy Facility.
- 2. Penn Township's engineer or a qualified third party engineer hired by Penn Township and paid for by the Applicant, shall document road conditions prior to construction. The engineer shall document road conditions again thirty (30) days after construction is complete or as weather permits.
- 3. Penn Township may require the Applicant to bond the road in compliance with state regulations.
- 4. Any road damage caused by the Applicant or its contractors shall be promptly repaired at the Applicant's expense.
- 5. The Applicant shall demonstrate that it has appropriate financial assurance to ensure the prompt repair of damaged roads.

Section 1111. LOCAL EMERGENCY SERVICES

- 1. The Applicant shall provide a copy of the project summary and site plan to local emergency services, including paid or volunteer Fire Department(s).
- 2. Upon request, the Applicant shall cooperate with emergency services to develop and coordinate implementation of an emergency response plan for the Wind Turbine or Wind Energy Facility.

Section 1112. NOISE AND SHADOW FLICKER

- 1. Audible sound from a Wind Turbine or Wind Energy Facility shall not exceed fifty-five (55) dBA, as measured at the exterior of any Occupied Building on a Non-participating Landowner's property. Methods for measuring and reporting acoustic emissions from Wind Turbines or Wind Energy Facilities shall be equal to or exceed the minimum standards for precision described in AWEA Standard 2.1 1989 titled Procedures for the Measurement and Reporting of Acoustic Emissions from Wind Turbine Generation Systems Volume I: First Tier.
- 2. The owner, Facility Owner, and Operator shall make reasonable efforts to minimize shadow flicker to any Occupied Building on a Non-participating Landowner's property.

Section 1113. WAIVER OF NOISE AND SHADOW FLICKER PROVISIONS

- 1. At the request of the Applicant, the Zoning Hearing Board may grant partial waivers of the noise and shadow flicker requirements under Section 1112 (1) of this ordinance where it has determined that literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question and provided that such waiver will not be contrary to the public interest.
- 2. The Applicant shall submit a signed notarized document from the property owner (s) that they are in agreement with the Applicant's request for a waiver of the noise and shadow flicker requirements under Section 1112 (1) of this Ordinance. This document shall stipulate that the property owner(s) know of the sound or flicker limits in this Ordinance, describe the impact on the property owner(s), and state that the consent is granted for the Wind Turbine or Wind Energy Facility to not comply with the sound or flicker limit in this Ordinance.
- 3. Any such waiver shall be recorded in the Recorder of Deeds Office of the County where the property is located. The waiver shall describe the properties benefited and burdened, and advise all subsequent purchasers of the burdened property that the waiver of sound or flicker limit shall run with the land and may forever burden the subject property.

Section 1114. SIGNAL INTERFERENCE

The Applicant shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television or similar signals, and shall mitigate any harm caused by the Wind Turbine or Wind Energy Facility.

Section 1115. LIABILITY INSURANCE

There shall be maintained a current general liability policy covering bodily injury and property damage in an amount acceptable to Penn Township. In the case of Wind Energy Facilities, there shall be maintained at least a current general liability policy covering bodily injury and property damage with limits of at least \$1 million per occurrence and \$1 million in the aggregate. Certificates shall be made available to Penn Township upon request.

Section 1116. DECOMMISSIONING

1. The Property Owner, Facility Owner, and Operator shall, at its expense, complete decommissioning of individual Wind Turbines and Wind Energy Facilities, within twelve (12) months after the end of the useful life of individual Wind Turbines and Wind Energy Facilities. A Wind Turbines and Wind Energy Facility will be presumed to be at the end of its useful life if no electricity is generated for a continuous period of twelve (12) months.

- 2. 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.
- 3. Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
- 4. If the Property Owner, Facility Owner, or Operator, does not complete decommissioning within the periods prescribed by Section 1116 (1), (2) and (3), then Penn Township may take such measures as necessary to complete decommissioning. The entry into and submission of evidence of a Participating Landowner agreement to Penn Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that Penn Township may take such action as necessary to implement the decommissioning plan.
- 5. As to Wind Energy Facilities, an independent and certified Professional Engineer shall be retained to estimate the total cost of decommissioning ("Decommissioning Costs") without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment ("Net Decommissioning Costs"). Said estimates shall be submitted to Penn Township after the first year of operation and every fifth year thereafter.
- 6. As to Wind Energy Facilities, the Facility Owner or Operator shall post and maintain Decommissioning Funds in an amount equal to Net Decommissioning Costs; Provided, that at no point shall Decommissioning Funds be less than twenty-five percent (25%) of Decommissioning Costs. The Decommissioning Funds shall be posted and maintained with a bonding company or Federal or Commonwealth chartered lending institution chosen by the Facility Owner or Operator and participating landowner posting the financial security, provided that the bonding company or lending institution is authorized to conduct such business within the Commonwealth and is approved by the Zoning Officer.
- 7. As to Wind Energy Facilities, Decommissioning Funds may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable to Penn Township.
- 8. As to Wind Energy Facilities, if the Facility Owner or Operator fails to complete decommissioning within the period prescribed by Paragraph 1116 (1), then the landowner shall have six (6) months to complete decommissioning.

Section 1117. <u>PUBLIC INQUIRIES AND COMPLAINTS REGARDING WIND ENERGY FACILITIES</u>

1. The Facility Owner and Operator shall maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints throughout the life of the project.

2. The Facility Owner and Operator shall make reasonable efforts to respond to the public's inquiries and complaints.

PART 2 Hydropower

Section 1201. PURPOSE

The purpose of this Part is to provide protection for low-impact hydropower to all parcels in the Township so as to encourage its use through the following:

- 1. Conservation and beneficial management of water resources in a comprehensive and coordinated manner, so as to assure their continued availability and productivity;
- 2. Maximization of the public welfare and economic benefit to be derived from low-impact hydropower resources, by extending their availability throughout the Township;
- 3. Minimization of the potential for damage or degradation to water resources; and
- 4. Protection of the surface and subsurface environment during development and utilization of water resources.

This Ordinance does not apply to large-scale hydropower which does not meet the requirements of low-impact hydropower as defined in Section 1202.

Section 1202. DEFINITIONS

<u>Hydropower Project</u> – Low-impact hydropower technology that produces electric power and that harnesses the hydropower potential of moving water impoundments, provided such incremental hydropower development:

- a. Does not adversely change existing impacts to aquatic systems;
- b. Meets the certification standards established by the Low Impact Hydropower Institute and American Rivers, Inc., or their successors;
- c. Provides an adequate water flow for protection of aquatic life and for safe and effective fish passage;
 - d. Protects against erosion; and
 - e. Protects cultural and historic resources.²

² Editor's Note: See Alternative Energy Portfolio Standards Act , 73 P.S. § 1648.2.

f. Complies with all state and federal standards, licenses and permits.

Owner – The holder of the record title to real property or the person entitled to use of the water at the property.

<u>Person</u> – A natural person, firm, partnership, association, social or fraternal organization, corporation, nonprofit corporation, trust, estate, receiver, syndicate, branch of government, or similar entities, any group or combination acting as a unit, or the successors or assigns of any of the aforesaid.

<u>Township</u> - The Township of Penn, Berks County, Pennsylvania.

Section 1203. SPECIAL EXCEPTION APPLICATION FOR HYDROPOWER PROJECT

Any person, including the Township, desiring to construct, install or alter a hydropower project within the Township shall first submit a special exception application to the Zoning Hearing Board on forms provided for that purpose by the Township and shall provide additional information as outlined in Section 1205, Special Exception Application Criteria. No person shall commence construction or alteration of a hydropower project prior to the owner of a proposed hydropower project receiving special exception approval.

Section 1204. SPECIAL EXCEPTION APPLICATION FEE

All applications for special exception shall be accompanied by an application fee which shall be established by the Board of Supervisors from time to time.

Section 1205. SPECIAL EXCEPTION CRITERIA

Special exception decisions shall contain written findings which may include, but are not limited to, the following criteria:

- 1. Location of proposed hydropower project, including proximity to buildings and neighboring properties.
- 2. The estimated environmental impact of the proposed hydropower project's operations upon the stream/river, reservoir and surrounding hydropower;
- 3. The adequacy of system design, including whether the hydropower has sufficient gallons per minute or a reserve to fulfill the needs to the hydropower system and all plumbing fixture requirements;
- 4. The adequacy of provisions for environmental protection and public safety;

- 5. The compliance of the proposed hydropower project and its use with this Ordinance, the Township Comprehensive Plan, the Township Subdivision and Land Development Ordinance, and all other applicable local, state and federal laws and regulations;
- 6. The compliance of the proposed hydropower project and its use with the International Residential Code or its successor for residential uses and the 2006 International Plumbing Code or its successor for commercial uses; and
- 7. Such other hydropower management criteria as may be deemed directly relevant to the proposed hydropower project or its operation.

Section 1206. AUTHORITY TO ATTACH CONDITIONS TO SPECIAL EXCEPTIONS

When the Zoning Hearing Board determines that certain construction or operational conditions are necessary to assure the conservation and protection of water resources, or to assure the conservative and efficient utilization of said water or resources, the Zoning Hearing Board may add conditions to the special exception approval, including, but not limited to:

- 1. Restriction on hours of hydropower construction;
- 2. Requirements for noise muffling and waste disposal necessary to assure compatibility with surrounding land uses; or
- 3. Hydropower design requirements above and beyond state requirements, necessary for ground water and environmental protection.

SECTION 20. Zoning Ordinance Number 2008-05 enacted on October 27, 2008, is hereby amended by amending Section 631, a reserved section, to read as follows:

Section 631. GEOTHERMAL ENERGY WELLS

Section 631.1. PURPOSE

The purpose of this Part is to regulate certain uses of the geothermal resources and thermal ground waters within and adjacent to the Township of Penn. In furtherance of this overall purpose, this Part is specifically intended to serve the following sub-purposes:

- 1. Minimization of the potential for damage or degradation to geothermal resources and thermal ground waters; and
- 2. Protection of the surface and subsurface environment during development and utilization of geothermal resources and thermal ground waters;

Section 631.2. DEFINITIONS

The following terms, as used in this Part, shall have the following meanings, unless the context clearly indicates a different meaning is intended:

Geothermal fluid - Any fluid transporting or capable of transporting geothermal heat.

Geothermal resources — The natural heat of the earth, and the energy, in whatever form, below the surface of the earth present in, resulting from, or created by, or which may be extracted from, the natural heat, and all minerals in solution or other products obtained from naturally heated fluids, brines, associated gases, in whatever form, found below the surface of the earth, exclusive of oil, hydrocarbon gas, other hydrocarbon gas, other hydrocarbon substances of helium but including specifically:

- a. All products of geothermal processes, embracing indigenous steam, hot water, and hot brines;
- b. Steam and other gases, hot water, and hot brines resulting from water, gas, or other fluids artificially introduced into geothermal formations;
- c. Heat or other associated energy found in geothermal formations; and
- d. Any by-product derived from them.

<u>Ground water</u> – Any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir, or other body of surface water, whatever may be the geological information or structure in which such water stands, flows, percolates, or otherwise moves.

a. Thermal ground water: Ground water which is less than 250 degrees Fahrenheit at bottom-hole temperature; and possessing sufficient heat to be used for a direct thermal application or in conjunction with a ground water heat pump.

<u>Well</u> – Any artificial opening or artificially altered natural opening, however made, by which geothermal fluids or ground water flows under natural pressure or is artificially withdrawn, or is used to operate a heat exchanger within the well, provided that this definition shall not include a natural spring.

Section 631.3. CONSTRUCTION

The provision of this Part shall be construed to the maximum extent possible as consistent with applicable state and federal statutes and regulations.

Section 631.4. SURFACE DISCHARGES

No well constructed or altered after the effective date of this Ordinance shall be operated or altered in such a manner as to cause geothermal fluids or thermal ground water to be discharged onto the surface of the ground or into any public ditch or drainage facility. Construction and routine maintenance of wells shall be exempt from said prohibition.

<u>SECTION 21.</u> All other articles, sections, parts and provisions of the Ordinances of the Township of Penn shall remain in full force and effect as previously enacted and amended.

SECTION 22. Repeal of Ordinances. Any ordinance or part of ordinances conflicting with the provisions of this Ordinance are hereby repealed insofar as they are inconsistent with this Ordinance's provision.

SECTION 23. Severability. If any article, section, subsection, provision, regulation, limitation, restriction, sentence, clause, phrase or word in this Ordinance, is, for any reason declared to be illegal, unconstitutional or invalid, by any Court of competent jurisdiction, this decision shall not affect or impair the validity of the Ordinance as a whole, or any other article, section, subsection, provision, regulation, limitation, restriction, sentence, clause, phrase, word, or remaining portion of the within Ordinance. The Board of Supervisors of the Township of Penn, Berks County, Pennsylvania, hereby declares that it would have adopted the within Ordinance and each article, section, subsection, provision, regulation, limitation, restriction, sentence, clause, phrase and word thereof, irrespective of the limitations, restrictions, sentences, clauses, phrases, or word that may been declared illegal, unconstitutional or invalid.

SECTION 24. Effective Date. This Ordinance shall become effective at the earliest date permitted by law.

DULY ORDAINED and ENACTED as an Ordinance this 23 day of Dovember, 2009.

BOARD OF SUPERVISORS OF PENN TOWNSHIP, BERKS COUNTY,

PENNSYLVANIA

Chairman

Vice Chairmán

Attest:

Member

CERTIFICATE OF ENACTMENT

I hereby certify that the foregoing is a true adopted by the Board of Supervisors of Perangel a regular meeting held on November 23 law.	enn Township Berks County Pennsylvania at
Dated: 11 23 09	Township Secretary