

EAST PIKELAND TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

ORDINANCE NO. 198

AN ORDINANCE OF EAST PIKELAND TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, AMENDING THE EAST PIKELAND TOWNSHIP ZONING ORDINANCE OF 2002, AS AMENDED; BY AMENDING ARTICLE II TO ADD NEW DEFINITIONS; BY AMENDING ARTICLE XVIII TO PROVIDE FOR ACCESSORY SOLAR ENERGY FACILITIES AND ACCESSORY WIND ENERGY FACILITIES AS WELL AS PERFORMANCE STANDARDS FOR BOTH; BY AMENDING ARTICLE XIII TO PROVIDE FOR PRINCIPAL SOLAR ENERGY FACILITIES IN THE INDUSTRIAL ZONING DISTRICT AND UTILITY ZONING DISTRICT AS WELL AS PROVIDING PERFORMANCE STANDARDS; BY AMENDING ARTICLE XIII TO PROVIDE FOR PRINCIPAL WIND ENERGY FACILITIES IN THE INDUSTRIAL ZONING DISTRICT AS WELL AS PROVIDING PERFORMANCE STANDARDS; AND BY AMENDING ARTICLES X AND XII TO PROVIDE FOR PRINCIPAL SOLAR ENERGY FACILITIES ON BUILDING ROOFTOPS AND WITHIN PARKING LOT INTERIORS.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED by the Board of Supervisors of the Township of East Pikeland, Chester County, Pennsylvania ("Township") as follows:

Section I. Article II, §201 of the East Pikeland Township Zoning and Ordinance, entitled "Definitions" is hereby amended to incorporate the following new definitions and revise the existing definition for Electric Utility Facility as follows:

Accessory Solar Energy Facility (ASEF)

An area of land or other area used for a solar collection system used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for on-site use. An accessory solar energy system consists of one (1) or more free-standing ground, or roof mounted solar arrays or modules, or solar related equipment and is intended to primarily reduce on-site consumption of utility power or fuels.

Principal Solar Energy Facility (PSEF)

An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power, and supply electrical or thermal power primarily for off-site use. Principal Solar Energy Facilities consist of one (1) or more freestanding ground or roof mounted solar collector devices, solar related equipment, and other accessory structures and buildings including light reflectors, concentrators, heat exchangers, substations, electrical infrastructure, transmission lines, and other appurtenant structures.

Accessory Wind Energy Facility (AWEF)

An area of land or other area used for wind energy equipment intended primarily to reduce on-site consumption of utility power. Equipment that converts and then stores or

transfers energy from the wind into usable forms of energy. This equipment includes any base, tower, pole, blade, foundation, generator, nacelle, rotor, transformer, vane, wire, inverter, batteries, or other component in the system.

Principal Wind Energy Facility (PWEF)

An area of land or other area used for wind energy equipment, the main purpose of which is to convert wind energy to electrical energy and supply electrical power primarily for off-site use. The facility consists of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, tower, pole, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

Electric Utility Facility

Buildings or structures and equipment used for the purpose of generating, producing, collecting, supplying, manufacturing, or delivering electricity in connection with the generation, production, collection, supply, manufacture, or delivery of electricity to off-site locations or the regional electricity grid. Notwithstanding the foregoing, a Nuclear-Powered Facility, Principal Solar Energy Facility, and Principal Wind Energy Facility are not included within this definition, nor does this definition include any facility that collects or burns trash or refuse.

Section II. Article XVIII of the East Pikeland Township Zoning Ordinance, entitled “Supplemental Land Use Regulations” is hereby amended to incorporate Section 1804.5 as follows:

1804.5. Accessory Solar Energy Facilities and Accessory Wind Energy Facilities.

Solar energy equipment and wind energy equipment shall be permitted as accessory structures in all zoning districts, subject to and in accordance with the provisions of Section 1827 – Accessory Solar Energy Facilities, and Section 1828 – Accessory Wind Energy Facilities, respectively, of this Article.

Section III. Article XVIII of the East Pikeland Township Zoning Ordinance, entitled “Supplemental Land Use Regulations” is hereby amended to incorporate Section 1827 and Section 1828 as follows:

Section 1827 – ACCESSORY SOLAR ENERGY FACILITIES (ASEF)

Any solar energy equipment authorized by Section 1804.5 shall be considered as an accessory structure, and the generation of energy or heat shall be considered as an accessory use to the principal existing use in any zoning district and shall be subject to and comply with the following:

1. ASEF shall be permitted as a use by right in all zoning districts.
2. ASEF shall be located on the same lot as the existing principal use.
3. ASEF shall comply with all minimum side and rear yard setback and height requirements of the applicable zoning district.

4. No free-standing solar energy equipment shall be located in the front yard. Solar energy equipment affixed to the roof of the principal structure and visible from the front yard shall be permitted.
5. For purposes of determining compliance with Impervious Surface standards for residential property uses in any of the applicable zoning districts, the total horizontal projection area of all ASEF that are ground mounted and freestanding solar collectors including solar photovoltaic cells, panels, arrays, inverters and solar hot air or water collector devices, shall be considered impervious coverage. For a tracking array or other moveable system, horizontal projection area shall be calculated at a 33-degree tilt angle. For stormwater management regulation purposes, the above-mentioned solar facilities will not be considered Impervious Surfaces.
6. ASEF mounted on roofs or walls of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within each of the underlying Zoning Districts. Freestanding ground mounted ASEF shall not exceed the maximum accessory structure height in the underlying zoning district.
7. Ground-mounted ASEF shall not be placed within any legal easement or right-of-way location, nor shall they be placed within any stormwater conveyance system or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.
8. All on-site utility, transmission lines, and plumbing shall be placed underground to the extent feasible.
9. Power generated by an ASEF shall not exceed 50 kilowatts of maximum output capacity per principal residential dwelling unit. There shall be no off-site primary use of an ASEF for generation of energy.
10. The ASEF shall comply with the physical performance requirements contained in Section 1713 of this chapter.
11. The ASEF shall meet and be installed in accordance with all applicable requirements of the Township Building Code.
12. Upon completion of installation, the ASEF shall be maintained in good working order in accordance with standards of the Township codes under which the ASEF was constructed. Failure of the property owner to maintain the ASEF in good working order is grounds for appropriate enforcement actions by the Township in accordance with applicable ordinances.
13. The owner of an ASEF shall provide the Township written confirmation that the public utility company to which the ASEF will be connected has been informed of the customer's intent to install a grid connected system and approved of such connection. Off-grid systems shall be exempt from this requirement.
14. Each ASEF and all solar related equipment shall be removed within twelve (12) months of the date when the use has been discontinued or abandoned by system owner and/or operator, or upon termination of the useful life of same. The ASEF shall be presumed to be discontinued or abandoned if no electricity is generated by such solar collector for a period of twelve (12) continuous months.

Section 1828 – ACCESSORY WIND ENERGY FACILITIES (AWEF)

Any wind energy equipment authorized by Section 1804.5 shall be considered as an accessory structure and the generation of energy shall be considered as an accessory use to the existing principal use in any zoning district and shall be subject to and comply with the following:

1. AWEF shall be permitted as a use by right in all zoning districts.
2. Freestanding AWEF shall be subject to and comply with the following:
 - A. Freestanding AWEF shall be located on the same lot as the existing principal use.
 - B. Power generated by freestanding wind turbine energy equipment shall not exceed 50 kilowatts of maximum output capacity for residential uses. There shall be no off-site primary use of the AWEF for generation of energy.
 - C. No freestanding AWEF shall be located in a front yard.
 - D. Freestanding AWEF shall comply with all principal structure minimum side and rear yard setback requirements of the applicable zoning district.
 - E. Freestanding AWEF shall not exceed a height of fifty (50) feet. The height of a freestanding AWEF shall be measured from the average approved finished grade at the perimeter of the base of the freestanding AWEF to the highest vertical point of the rotor at its maximum vertical position.
 - F. For a freestanding AWEF, only a single pole or monopole structure shall be permitted. The pole shall be self-supporting upon its foundation without the use of guy wires or other supports and shall be certified by the wind turbine's manufacturer that the pole is sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
 - G. Freestanding AWEF shall not be artificially lighted.
 - H. Freestanding AWEF shall comply with all applicable requirements of the Federal Aviation Administration.
 - I. Freestanding AWEF shall be set back from any occupied building, property line, street ultimate right-of-way, utility building or structure, utility right-of-way or easement, or liquid fuel source a distance of not less than 1.5 times the height measured from the average approved finished grade at the perimeter of the base to the highest vertical point of the rotor at its maximum vertical position.
 - J. For a freestanding AWEF, clearly visible warning signs concerning falling objects shall be placed within the principal structure rear and side yard

setbacks and spaced not more than 100 feet apart, to the extent possible, to warn against ice and rotor throws. Signs are to be placed a minimum of three (3) feet from the ground and be a minimum of one (1) square foot, but not exceeding two (2) square feet, in surface area.

- K. Freestanding AWEF shall be equipped with a braking system to limit rotor rotation speed to within the design limits.
 - L. The minimum height of the lowest position of the freestanding wind turbine rotor shall be 15 feet above the surface of the ground.
 - M. Ladder or steps affixed to a freestanding wind turbine shall not be provided any lower than 15 feet above its base.
 - N. The design color and other visual features of the freestanding wind turbine shall be white, off-white, or grey.
 - O. For a freestanding wind turbine, all exterior utilities, cables, electrical lines, and other connections shall be located in a conduit and buried underground to the maximum extent possible.
 - P. For a freestanding AWEF, all ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
 - Q. There shall be no antennae, advertising, or other items or material affixed to or otherwise placed on the freestanding AWEF, except those required for safety or identification of manufacturer.
 - R. Operation of the freestanding AWEF shall comply with the physical performance requirements of Section 1713 of this Chapter.
 - S. The freestanding AWEF shall meet and be installed in accordance with all applicable requirements of the Township Building Code.
 - T. Equipment selected for use as an AWEF shall incorporate the latest technology for producing low ambient noise levels. Noise levels shall comply with regulations contained in Zoning Ordinance Section 1713.2, Noise, based on the receiving land use category, except that the Sound Level Limit shall not exceed 55 dBA from 10 pm to 7 am, plus Sundays and Legal Holidays for the Receiving Land Use Category for "Residential, Public Space, Open Space, Agriculture and Institutional".
3. Roof mounted wind turbines and AWEF shall be subject to and comply with the following:
- A. Roof mounted AWEF shall be located on the same lot as the existing principal use.
 - B. Power generated by roof mounted AWEF shall not exceed 1,000 watts of maximum output capacity. There shall be no commercial use of the roof mounted AWEF for generation of energy.

- C. Roof mounted AWEF shall not exceed a height of eight (8) feet measured from the center of the wind turbine's nose cone to the roofline on which it is mounted.
- D. Roof mounted wind turbine blades shall be made of aluminum or carbon fiber.
- E. Roof mounted wind turbine blades shall have a minimum clearance of three (3) feet between the tip of the blades and roofline as well as other obstructions including but not limited to antennae, satellite dishes, vent stacks, and chimneys.
- F. For a roof mounted wind turbine, the mounting equipment shall be certified by the wind turbine's manufacturer that the mounting equipment is sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
- G. The roof mounted wind turbine shall be mounted in accordance with the manufacturer's installation requirements with mounting bracket materials being a minimum thickness of ¼ inch steel.
- H. Certification is required by a Pennsylvania registered professional engineer that the building is structurally sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
- I. Roof mounted AWEF shall not be artificially lighted.
- J. Roof mounted AWEF may be installed on occupied buildings. Roof mounted wind turbines shall be set back from any adjacent occupied building a distance of not less than 30 feet.
- K. For a roof mounted AWEF, clearly visible warning signs concerning falling objects shall be placed within the principal structure yard setbacks and spaced not more than 100 feet apart, to the extent possible, to warn against ice and rotor throws. Signs are to be placed a minimum of three (3) feet from the ground and be a minimum of one (1) square foot, but not exceeding two (2) square feet, in surface area.
- L. Roof mounted wind turbines shall be equipped with a braking system to limit rotor rotation speed to within the design limits.
- M. The design color and other visual features of the roof mounted AWEF shall be white, off-white, or grey.
- N. For a roof mounted AWEF, all exterior utilities, cables, electrical lines, and other connections shall be located in a conduit and buried underground to the maximum extent possible.

- O. For a roof mounted AWEF, all ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- P. There shall be no antennae, advertising, or other items or material affixed to or otherwise placed on the roof mounted AWEF, except those required for safety or identification of manufacturer.
- Q. Operation of the roof mounted AWEF shall comply with the physical performance requirements of Section 1713 of this chapter.
- R. The roof mounted AWEF shall meet and be installed in accordance with all applicable requirements of the Township Building Code.
- S. Equipment selected for use as an AWEF shall incorporate the latest technology for producing low ambient noise levels. Noise levels shall comply with regulations contained in Zoning Ordinance Section 1713.2, Noise, based on the receiving land use category, except that the Sound Level Limit shall not exceed 55 dBA from 10 pm to 7 am, plus Sundays and Legal Holidays for the Receiving Land Use Category for “Residential, Public Space, Open Space, Agriculture and Institutional”.

Section IV. Article X of the East Pikeland Township Zoning Ordinance, entitled “MU Mixed-Use Development District” is hereby amended to add a new Permitted Use Section 1001.1.KK for a Principal Solar Energy Facility Mounted on a Building Rooftop and to add a new Conditional Use Section 1001.3.F for a Principal Solar Energy Facility Constructed Within a Parking Lot, as follows:

Section 1001.1.KK – Principal Solar Energy Facility (PSEF) Mounted on a Building Rooftop in accordance with the provisions of Section 1827 – Accessory Solar Energy Facilities, with the exception that the power generation limits of Section 1827.8 shall not apply.

Section 1001.3.F – Principal Solar Energy Facility (PSEF) Constructed Within the Limits of a Paved Parking Lot, in accordance with the provisions of Section 1827 – Accessory Solar Energy Facilities, with the exception that the power generation limits of Section 1827.8 shall not apply. The parking lot landscaping regulations for the interior area of a parking lot, set forth in the Zoning Ordinance, may be modified to the minimum extent necessary by the Board of Supervisors if an Applicant can demonstrate that the PSEF performance would be adversely impacted by the required interior landscape plantings.

Section V. Article XII of the East Pikeland Township Zoning Ordinance, entitled “C Commercial District” is hereby amended to add a new Permitted Use Section 1201.1.BB for a Principal Solar Energy Facility (PSEF) Mounted on a Building Rooftop and to add a new Conditional Use Section 1201.3.N for a Principal Solar Energy Facility (PSEF) Constructed Within a Parking Lot, as follows:

Section 1201.1.BB – Principal Solar Energy Facility (PSEF) Mounted on a Building Rooftop, in accordance with the provisions of Section 1827 – Accessory Solar Energy Facilities, with the exception that the power generation limits of Section 1827.8 shall not apply.

Section 1201.3.N – Principal Solar Energy Facility (PSEF) Constructed Within the Limits of a Paved Parking Lot, in accordance with the provisions of Section 1827 – Accessory Solar Energy Facilities, with the exception that the power generation limits of Section 1827.8 shall not apply. The parking lot landscaping regulations for the interior area of a parking lot, set forth in the Zoning Ordinance, may be modified to the minimum extent necessary by the Board of Supervisors if an Applicant can demonstrate that the PSEF performance would be adversely impacted by the required interior landscaped plantings.

Section VI. Article XIII of the East Pikeland Township Zoning Ordinance, entitled “I Industrial District and U Utility District” is hereby amended regarding Conditional Uses to add new Section 1301.3.I for Principal Solar Energy Facilities, add new Section 1309.3.C for Principal Wind Energy Facilities, and amend the existing text for Section 1309.3.B as follows:

- 1301.3.I Principal Solar Energy Facility, see definition in Article II and in accordance with the provisions of Section 1306.7.
- 1309.3.B Electric Utility Facility, see definition in Article II and in accordance with the provisions of Section 1314.2.
- 1309.3.C Principal Wind Energy Facility, see definition in Article II and in accordance with the provisions of Section 1314.3.

Section VII. Article XIII of the East Pikeland Township Zoning Ordinance, entitled “I Industrial District and U Utility District” is hereby revised to incorporate Conditional Use performance regulations in new Section 1306.7 for Principal Solar Energy Facilities as follows:

- 1306.7 All Conditional Use applications for a Principal Solar Energy Facility (PSEF) shall meet the following standards and criteria, in addition to all other applicable criteria:
 - A. Conditional Use: Principal Solar Energy Facilities (PSEF), which are facilities used for principal use solar energy generation except as provided in the Mixed Use (MU) and Commercial (C) Zoning districts, shall be permitted only in the Industrial (I) District and Utility (U) District by Conditional Use in accordance with this Section and Article XX Conditional Use Process. It shall be the Applicant’s burden to demonstrate to the satisfaction of the Board of Supervisors that all requirements of Article XX have been met.
 - B. Principal Use: Except as otherwise provided in the Township Zoning Ordinance, PSEF shall be considered as principal use structures and the generation of energy as a principal use unless all provisions for an Accessory Solar Energy Facility are met.
 - C. Lot Size: The minimum lot size for a PSEF shall be twenty (20) acres.
 - D. Land Development: A PSEF shall be considered a Land Development and is subject to the requirements of the East Pikeland Township Subdivision and Land Development Ordinance. In addition, all requirements of Township Code Chapter 22 – Grading Erosion and Sediment Control and Stormwater Management

Ordinance shall be met.

- E. Setbacks: All components of a PSEF shall be set back 75 feet from all property lines.
- F. Screening and Landscaping: Screening and landscaping shall be provided for all uses as established in Section 1709, Landscaping, Screening and Buffering, of the Township Zoning Ordinance. No trees or other landscaping otherwise required by the municipal ordinances or attached as a condition of approval of any plan, application, or permit may be removed for the installation or operation of a PSEF, unless authorized as part of the Conditional Use Decision.
- G. Design and Installation of Principal Solar Energy Facilities:
 - (1) Uniform Construction Code – To the extent applicable, the PSEF shall comply with the Township Building Code and the Pennsylvania Uniform Construction Code, Act 45 of 1999 as amended.
 - (2) Design Safety Certification – The design of the PSEF 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 or other similar certifying organizations.
 - (3) Concrete footings for all ground mounted solar arrays shall be prohibited.
 - (4) Electrical Components – All electrical components of the PSEF shall conform to relevant and applicable local, state, and national codes as well as relevant and applicable international standards.
- H. Submission Requirements:

In addition to the other requirements of this ordinance and other applicable ordinances, including but not limited to the Township Subdivision and Land Development Ordinance, the following shall be submitted with each application:

- (1) Narrative: A narrative describing the proposed PSEF, including an overview of the project; the project location; the approximate generating capacity of the PSEF; the approximate number, representative types and height/extent or range of heights/extent of Solar Panels to be constructed, including their generating capacity, dimensions, and respective manufacturers; and a description of ancillary facilities.
- (2) Affidavit: An affidavit or similar evidence of agreement between the property owner and the Facility Owner or Operator demonstrating that the Facility Owner or Operator has the permission of the property owner to apply for necessary permits and land development plan approval for construction and operation of the PSEF.

- (3) Properties: Identification of the properties on which the proposed PSEF will be located and the properties adjacent to where the PSEF will be located is required.
- (4) Site Plan: A site plan showing the planned location of each solar panel, property lines, setback lines, access roads and turnout locations, substation(s), electrical cabling from the PSEF 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.
- (5) Glare: Applicants shall provide a glare analysis report prepared and sealed by an engineer licensed in the Commonwealth of PA demonstrating that glare shall not be projected onto any public street or any building on a property other than the one whereupon the system is located, or all solar panels shall be equipped with anti-reflective coatings.
- (6) Decommissioning: Documents related to decommissioning, including a schedule for the decommissioning and financing security required herein.
- (7) Studies: Other relevant studies, reports, certifications, and approvals as may be reasonably requested by the Board of Supervisors to ensure compliance with this ordinance.
- (8) Conditions: All conditions of any Conditional Use granted by the Board of Supervisors shall be obligations of any succeeding owners of the property. To assist with this subsection, any Conditional Use Approval permitting a PSEF shall be recorded verbatim against the property in the County Office of the Recorder of Deeds. In addition, any change in ownership of the property shall be registered with the Township within thirty (30) days of said change in ownership.

I. Certifications and Inspections

- (1) National and State Standards: The Applicant shall show that all applicable manufacturer's, Commonwealth of Pennsylvania and U.S. standards for the construction, operation, and maintenance of the proposed PSEF have been met, including without limitation back feed prevention and lightning grounding. The PSEF shall be built, operated, and maintained to the applicable industry standards of the Institute of Electrical and Electronic Engineers (IEEE) and the American National Standards Institute (ANSI). The applicant for a PSEF shall furnish evidence, over the signature of a professional engineer licensed to practice in the Commonwealth of Pennsylvania, that such facility is in compliance with such standards.
- (2) Annual Inspection Report: Whenever a PSEF is authorized by Conditional Use, an annual inspection report prepared by an independent professional engineer licensed in the Commonwealth of Pennsylvania shall be obtained by the property owner and submitted to the Township not later than thirty

(30) days following each anniversary of the date on which the Township certified the facility ready for operation. The inspection report shall certify the structure soundness, proper operation of the facility, consistency with the Conditional Use Decision conditions, and consistency with the approved Land Development Plan. The requirement to submit the annual report shall be such that it shall be required even if not specifically included in or as part of a Conditional Use decision.

- (3) Certification: No PSEF shall commence operation until the Township has certified in writing that the conditions of this Section have been satisfied and the facility has been constructed and installed in accordance with the approved plans and specifications.

J. Use of Public Roads

- (1) The Applicant shall identify all state and local public roads to be used within the Township to transport equipment and parts for construction, operation, or maintenance of the PSEF.
- (2) The Township Engineer, or a qualified third-party engineer hired by the Township and paid for by the Applicant, shall document by video road conditions prior to construction. The Applicant's engineer must submit the video documentation to the Township Engineer. The engineer shall document road conditions again thirty (30) days after construction is complete.
- (3) The Township may 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.

K. Local Emergency Services

- (1) The Applicant shall provide a copy of the project summary and site plan to the Township Emergency Services Coordinator and Kimberton Fire Company.
- (2) Upon request, the Applicant shall cooperate with emergency services to develop and coordinate implementation of an emergency response plan for the PSEF.

- L. Liability Insurance: There shall be maintained a current general liability policy covering bodily injury and property damage with limits of at least \$5 million per occurrence and \$5 million in the aggregate. Certificates shall be made available to the Township upon request.

M. Decommissioning

- (1) The PSEF owner is required to notify the Township immediately upon cessation or abandonment of the operation. The PSEF shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of twelve (12) continuous months.
- (2) The PSEF owner shall then have twelve (12) months in which to dismantle and remove the PSEF including all solar related equipment or appurtenances related thereto, including but not limited to buildings, solar panels, cabling, electrical components, roads, foundations, and other associated facilities from the property. If the owner fails to dismantle and/or remove the PSEF within the established timeframes, the municipality may complete the decommissioning at the owner's expense.
- (3) The Facility Owner and Operator shall execute a Decommissioning Agreement, to be approved by the Township pending the review of the Township Solicitor, before the final plan is released by the Board of Supervisors and filed on record. Said agreement shall contain all terms and conditions for decommissioning requirements.
- (4) Decommissioning shall include removal of all structures, equipment, buildings, cabling, electrical components, roads, foundations to a depth of 36 inches, and any other associated facilities.
- (5) 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.
- (6) An independent and Pennsylvania certified Professional Engineer shall be retained to estimate the total decommissioning cost, plus ten percent (10%), without regard to salvage value of the equipment. Said estimates shall be submitted to the Township after the first year of operation and every fifth year thereafter. The Township, upon the recommendation of the Township Engineer, may refuse to accept such estimate for good cause shown. If the applicant or developer and the Township are unable to agree upon an estimate, then the estimate shall be recalculated and re-certified by another Professional Engineer licensed as such in this Commonwealth and chosen mutually by the Township and the applicant or developer.

The estimate certified by the third engineer shall be presumed fair and reasonable, and shall be the final estimate. In the event that a third engineer is so chosen, fees for the services of such engineer shall be paid equally by the Township and the Applicant or developer.

- (7) The Facility Owner or Operator shall post and maintain Decommissioning Funds over the life of the PSEF. 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 Township.

- (8) 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 the Township.
- (9) If the Facility Owner or Operator fails to complete decommissioning within the period prescribed herein, then the landowner shall have six (6) months to complete decommissioning.
- (10) If neither the Facility Owner or Operator nor the landowner complete decommissioning within the periods prescribed, then the Township may take such measures as necessary to complete decommissioning. The entry into and submission of evidence of a Participating Landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns that the Township may take such action as necessary to implement the decommissioning plan.
- (11) The escrow agent shall release the Decommissioning Funds when the Facility Owner or Operator has demonstrated and the municipality concurs that decommissioning has been satisfactorily completed, or upon written approval of the municipality in order to implement the decommissioning plan.

N. Public Inquiries and Complaints: 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. The Facility Owner and Operator shall make reasonable efforts to respond to the public's inquiries and complaints.

O. Shadows and Obstructions: Prior to the issuance of a zoning and/or building permit, PSEF applicants must acknowledge in writing that the issuing of said permit shall not and does not create in the property owner, its, his, her, or their successors and assigns in title or create in the property itself: (a) the right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or (b) the right to prohibit the development on or growth of any trees or vegetation on such property.

P. Solar Easements

- (1) Where a subdivision or land development proposes a PSEF, solar easements may be provided. Said easements shall be in writing and shall be subject to the same conveyance and instrument recording requirements as other easements.

- (2) Any such easements shall be appurtenant, shall run with the land benefitted and burdened, and shall be defined and limited by conditions stated in the instrument of conveyance. Instruments creating solar easements shall include but not be limited to:
 - a. A description of the dimensions of the easement, including vertical and horizontal angles measured in the degrees or the hours of the day, on specified dates, during which direct sunlight to a specified surface or structural design feature may not be obstructed.
 - b. Restrictions on the placement of vegetation, structures, and other objects which may impair or obstruct the passage of sunlight through the easement.
 - c. Enumeration of the terms and conditions, if any, under which the easement may be revised or terminated.
 - d. An explanation of the compensation for the owner of the real property subject to the solar easement for maintaining the easement and for the owner of the real property benefitting from the solar easement in the event of interference with the easement.
- (3) If necessary, a PSEF owner and/or operator must obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreement(s) with adjacent property owner(s).

Section VIII. Article XIII of the East Pikeland Township Zoning Ordinance, entitled “Industrial District and U Utility District” is hereby revised to incorporate Conditional Use performance regulations in new Section 1314.3 for Principal Wind Energy Facilities as follows:

1314.3 All Conditional Use applications for a Principal Wind Energy Facility (PWEF) shall meet the following standards and criteria, in addition to all other applicable criteria:

- A. Conditional Use: The following specific development standards shall apply to Principal Wind Energy Facilities (PWEF). They are facilities used for principal use wind energy generation and shall be permitted by Conditional Use in the Utility (U) Zoning District in accordance with this section and Article XX Conditional Use Process. PWEF shall be considered a Land Development and subject to the requirements of the Township Subdivision and Land Development Ordinance.
- B. Principal Use: Except as otherwise provided in the Township Zoning Ordinance, PWEF shall be considered as principal use structures and the generation of energy as a principal use, unless all provisions for an Accessory Wind Energy Facility are met.
- C. Lot Size: The minimum lot size for PWEF shall be twenty (20) acres.

D. Definitions for a PWEF:

- (1) “Applicant” is the person or entity filing an application under this Ordinance.
- (2) “Facility Owner” means the entity or entities having an equity interest in PWEF, including their respective successors and assigns.
- (3) “Operator” means the entity responsible for the day-to-day operation and maintenance of the PWEF.
- (4) “Hub Height” means the distance measured from the surface of the tower foundation to the height of the wind turbine hub to which the blade is attached.
- (5) “Occupied Building” means a residence, school, hospital, church, public library, or other building used for public gathering that is occupied or in use when the permit application is submitted.
- (6) “Turbine Height” means the distance measured from the surface of the tower foundation to the highest point of the turbine rotor plane.
- (7) “Wind Turbine” means 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 transformer, if any.
- (8) “Non-Participating Landowner” means any landowner except those on whose property all or a portion of a PWEF is located pursuant to an agreement with the Facility Owner or Operator.

E. PWEF Modifications: Any physical modification to an existing and permitted PWEF that materially alters the size, type, or number of Wind Turbines or other equipment shall require a permit modification under this Ordinance. Like-kind replacements shall not require a permit modification.

F. Conditional Use Application: The conditional use application shall demonstrate that the proposed PWEF will comply with this Ordinance.

- (1) Among other applicable and relevant requirements, the application shall contain the following:
 - a. A narrative describing the proposed PWEF, including an overview of the project; the project location; the approximate generating capacity of the PWEF; 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 agreement between the property owner and the Facility Owner or Operator demonstrating that the

Facility Owner or Operator has the permission of the property owner to apply for necessary permits for construction and operation of the PWEF.

- c. Identification of the properties on which the proposed PWEF will be located and the properties adjacent to where the PWEF 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 PWEF 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.
- f. Other relevant studies, reports, certifications, and approvals as may be reasonably requested by the Township to ensure compliance with this Ordinance.

- (2) Throughout the process, the Applicant shall promptly notify the Township of any changes to the information contained in the application.

G. Design and Installation of the PWEF:

- (1) Design Safety Certification: The design of the PWEF 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.
- (2) Uniform Construction Code: To the extent applicable, the PWEF shall comply with the Township Building Code and the Pennsylvania Uniform Construction Code as amended.
- (3) Controls and Brakes: All PWEF shall be equipped with a redundant braking system. This includes both aerodynamic overspeed controls (including but not limited to 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 PWEF shall conform to relevant and applicable local, state, and national codes as well as relevant and applicable international standards.
- (5) Visual Appearance and Power Lines:

- a. Wind turbines shall be a non-obtrusive color such as white, off-white, or gray.
- b. PWEF 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 shall not display advertising, except for reasonable identification of the turbine manufacturer, Facility Owner, and Operator.
- d. On-site transmission and power lines between wind turbines 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 from the ground.

(7) Climb Prevention/Locks:

- a. Wind turbines shall not be climbable up to fifteen (15) feet 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.

H. Height:

The maximum height of a PWEF wind turbine tower and structure, including all moving and rotating parts, shall not exceed two hundred (200) feet. The height is measured from the average Township approved finished grade at the perimeter of the base of the wind turbine tower to the highest vertical point of the rotor blade. The maximum height of any other building or structure, not including the wind turbine tower, shall not exceed one hundred (100) feet.

I. Setbacks:

(1) Occupied Buildings:

- a. Wind turbines shall be set back from the nearest occupied building a distance not less than the normal setback requirements for that zoning classification or 1.1 times the turbine height, whichever is greater. The setback distance shall be measured from the center of

the wind turbine base 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 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 normal setback requirements for that zoning classification or 1.25 times the turbine height, whichever is greater. The setback distance shall be measured to the center of the wind turbine base.

(3) Public Roads: All wind turbines shall be set back from the nearest public road a distance of not less than 1.25 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.

J. Use of Public Roads:

(1) The Applicant shall identify all state and local public roads to be used within the Township to transport equipment and parts for construction, operation, or maintenance of the PWEF.

(2) The Township Engineer or a qualified third-party engineer hired by the 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) The Township may 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.

K. 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 PWEF.

- L. Noise and Shadow Flicker:
- (1) Equipment selected for use as an PWEF shall incorporate the latest technology for producing low ambient noise levels. Noise levels shall comply with regulations contained in Zoning Ordinance Section 1713.2, Noise, based on the receiving land use category, except that the Sound Level Limit shall not exceed 55 dBA from 10 pm to 7 am, plus Sundays and Legal Holidays for the Receiving Land Use Category for “Residential, Public Space, Open Space, Agriculture and Institutional”.
 - (2) The Facility Owner and Operator shall make reasonable efforts to minimize shadow flicker to any occupied building on a non-participating landowner’s property.
- M. 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 PWEF.
- N. Liability Insurance: There shall be maintained a current general liability policy covering bodily injury and property damage with limits of at least five (5) million dollars per occurrence and five (5) million dollars in the aggregate. Certificates shall be made available to the Township upon request.
- O. Decommissioning:
- (1) The Facility Owner and Operator shall, at its expense, complete decommissioning of the PWEF and individual wind turbines within (12) twelve months after the end of the useful life of the facility or individual wind turbines. The PWEF or individual wind turbines will be presumed to be at the end of useful life if no electricity is generated for a continuous period of twelve (12) months. The Facility Owner and Operator shall execute a Decommissioning Agreement, to be approved by the Township pending the review of the Township Solicitor, before the final plan is released by the Board of Supervisors and filed on record. Said agreement shall contain all terms and conditions for decommissioning requirements.
 - (2) Decommissioning shall include removal of wind turbines, buildings, cabling, electrical components, roads, foundations to a depth of 36 inches, 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) An independent and Pennsylvania certified Professional Engineer shall be retained to estimate the total decommissioning cost, plus ten percent (10%), without regard to salvage value of the equipment. Said estimates shall be submitted to the Township after the first year of operation and every fifth year thereafter. The Township, upon the recommendation of the Township Engineer, may refuse to accept such estimate for good

cause shown. If the applicant or developer and the Township are unable to agree upon an estimate, then the estimate shall be recalculated and re-certified by another professional engineer licensed as such in this Commonwealth and chosen mutually by the Township and the applicant or developer. The estimate certified by the third engineer shall be presumed fair and reasonable and shall be the final estimate. In the event that a third engineer is so chosen, fees for the services of such engineer shall be paid equally by the Township and the applicant or developer.

- (5) The Facility Owner or Operator shall post and maintain Decommissioning Funds over the life of the PWEF. 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 Township.
- (6) 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 the Township.
- (7) If the Facility Owner or Operator fails to complete decommissioning within the period prescribed herein, then the landowner shall have six (6) months to complete decommissioning.
- (8) If neither the Facility Owner or Operator, nor the landowner complete decommissioning within the periods prescribed, then the Township may take such measures as necessary to complete decommissioning. The entry into and submission of evidence of a Participating Landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns that the Township may take such action as necessary to implement the decommissioning plan.
- (9) The escrow agent shall release the Decommissioning Funds when the Facility Owner or Operator has demonstrated and the municipality concurs that decommissioning has been satisfactorily completed, or upon written approval of the municipality in order to implement the decommissioning plan.

- P. Public Inquiries and Complaints: 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. The Facility Owner and Operator shall make reasonable efforts to respond to the public's inquiries and complaints.

Section IX. **APPLICABILITY.** The provisions hereof shall supersede any ordinances or parts of ordinances which are inconsistent herewith.

Section X. SEVERABILITY. If any provision, sentence, clause, section, or part of this ordinance is for any reason found to be unconstitutional, illegal, or invalid, such unconstitutionality, illegality, or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors that this ordinance would have been adopted had such unconstitutional, illegal, or invalid provision, sentence, clause, section, or part thereof not been included herein.

Section XI. EFFECTIVE DATE. This ordinance shall become effective five (5) days after enactment as provided by law.

ENACTED AND ORDAINED into an Ordinance this 4th day of October 2022.