



## ORDINANCE 2010-200-28

**AN ORDINANCE** of the Township of Harborcreek, Erie County, PA, Amending, Revising, and Re-enacting Harborcreek Township Zoning Ordinance 2010-200, as amended, by including definitions for Energy Facilities (Solar and Wind), replacing Section 2021 Wind Energy Conversion Systems (WECS) with permitting Accessory Solar Energy Systems (ASES) and Small Wind Turbine in all zoning districts and setting regulations and include Principle Solar Energy Systems (PSES) and Wind Energy Conversion Systems as conditional use in Industrial, Agricultural and Public University Zoning Districts and setting regulations.

**WHEREAS**, the Pennsylvania Municipalities Planning Code, act of July 31, 1968, as amended, 53 P.S. §§ 10101 et seq., enables a municipality through its zoning ordinance to regulate the use of property and the conservation of energy through access to and use of renewable energy resources; and

**WHEREAS**, Harborcreek Township seeks to promote the general health, safety, and welfare of the community by implementing this ordinance known as Energy Facilities and shall be incorporated into and become a part of, Zoning Ordinance 2010-200 by providing for access to, and use of, energy facilities such as Solar and Wind Energy Facilities; and

**NOW THEREFORE**, the Harborcreek Township Board of Supervisors hereby ordains and enacts the following amendment to Zoning Ordinance No. 2010-200;

**Section 1. PURPOSE.** The purpose is to provide for the construction and operation of solar & wind energy facilities in Harborcreek Township subject to reasonable conditions that will protect the public health, safety, and welfare.

### **Section 2. DEFINITIONS**

Facility Owner: means the entity or entities having an equity interest in the Energy Facility, including their respective successors and assigns.

Operator: means the entity responsible for the day-to-day operation and maintenance of the Energy Facility.

Easement – an easement means a right, expressed as an easement, restriction, covenant, or condition contained in any deed, contract, or other written instrument executed by or on behalf of any landowner for the purpose of assuring adequate access to direct sunlight for energy systems.

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

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.

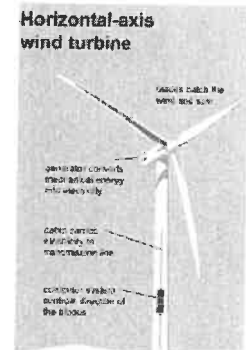
Glare – the effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

Hub Height: means the distance measured from the surface of the tower foundation to the height of the wind turbine hub, to which the blades are attached.

Turbine Height: means the distance measured from the surface of the tower foundation to the highest point of the turbine rotor plane.

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

Wind Energy Conversion System (intended for commercial use) - An electric generating facility, whose main purpose is to supply electricity and consists of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines, and other appurtenant structure/equipment. Its sole purpose is for the sale and distribution off-site of available energies.



Small Wind Turbine: (intended for personal use) – A wind turbine (small) is an accessory to a principle residential or commercial use to solely be used to generate power (without regard to any excess power generated going to a power grid.) The development (includes all structures & turbines) shall not exceed the maximum lot coverage of the zoning district within which it is located.

Accessory Solar Energy System (referred as ASES and intended as personal use) – is an accessory to a principle residential or commercial use (secondary to the principle use). An area of land or other area used for a solar collection system principally used to capture sunlight, converting into electricity by photovoltaics (PV) or thermal power and supply those converted energies for on-site purposes as an accessory to the principle use. An accessory solar energy system that includes ground mounted and related equipment and all structures on property shall not exceed the maximum lot coverage of the zoning district within which it is located.

Principle Solar Energy System (referred as PSES and intended for commercial, profit use) – An area of land or other area used for a solar collection system principally used to capture sunlight, converting into electricity by photovoltaics (PV) or thermal power and supply those converted energies for off-site purposes as the principle use to the property. Principle solar energy system consists of one or more freestanding ground or roof-mounted solar collector devices, solar-related equipment and other accessory structures and buildings, including light reflectors, concentrators, and heat exchangers; substations; electrical infrastructure; transmission lines and other appurtenant structures.

Photovoltaics (PV) - a technology that converts light directly into electricity.

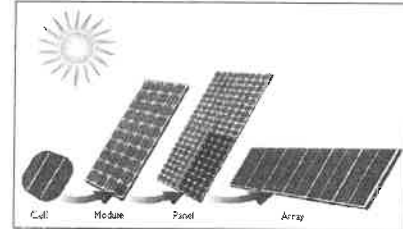
Medium Voltage Cable - 34.5 kV lines which provide electricity to homes/structures.

Power Switchyard - structure needed to tie the solar energy facility to electric transmission.

Solar Energy – radiant energy (direct, diffuse and/or reflective) received from the sun.

Solar Related Equipment: items including a solar photovoltaic cell, module, panel, or array, or solar hot air or water collector device panels, lines, pumps, batteries, mounting brackets, framing and possibly foundations or other structures used for or intended to be used for collection of solar energy.

- A. Solar Cell - smallest basic solar electric device which generates electricity when exposed to light.
- B. Solar Module - grouping of solar cells with the purpose of harvesting solar energy.
- C. Solar Panel - part or portion of a solar energy system containing one or more receptive cells or modules, the purpose of which is convert solar energy for use in space heating or cooling, for water and/or for electricity.
- D. Solar Array - part or portion of a solar energy system containing one or more receptive cells or modules, the purpose of which is convert solar energy for use in space heating or cooling, for water and/or for electricity.



### Section 3. PERMITTED USE

Accessory Solar Energy System (ASES) and Small Wind Turbine are permitted in all zoning districts as defined below:

- A. Accessory Solar Energy System (ASES) as defined in Section 2 of this ordinance and shall comply with the following:
  - 1. Rear and side yard setback of 10 ft. and front yard setback of the zoning district within which it is located for ground mounted facilities.
  - 2. Any energy facilities and related energy equipment shall be placed in such a way that any glare does not project onto nearby structures or roadways.
  - 3. Shall secure a building permit and comply with PA UCC Code
  - 4. Does not require a zoning permit.
- B. Small Wind Turbine: as defined in Section 2 of this ordinance and shall comply with requirements listed below. Small Wind Turbine requires a zoning permit with the accompanied documentation listed below:
  - 1. Construction plans prepared by a registered engineer showing the location of the proposed tower and related equipment. The type of materials used to construct the tower or pole on which the wind conversion system will be mounted; all manufacturer's data relative to the complete operational characteristics of the wind turbine including but not limited to, safety and performance standards and/or characteristics and, noise characteristics, etc.
  - 2. All towers or poles shall be set back a minimum distance of 1.25 times the total height of the tower or pole and all equipment mounted thereon from all adjacent property lines. The total height shall include the height of any structure that a tower or pole is mounted on if it is not mounted directly at ground level.
  - 3. All towers or poles shall be enclosed by a six (6) foot fence with a lockable entry. Also the climbing apparatus for the tower or pole shall stop twelve (12) feet above the ground level.
  - 4. Wind Turbine operations shall not cause interference to television or radio reception on neighboring properties. The Township reserves the right to suspend and/or rescind the zoning permit if such interference becomes evident and is a nuisance to neighboring property owners.
  - 5. Wind Turbine operations shall not cause unreasonable noise that would be objectionable to and detract from adjacent properties. The Township reserves the right to suspend and/or rescind the zoning permit if, in its opinion, the noise characteristics and/or levels generated by a particular turbine or related equipment unreasonably loud and pose an undesirable nuisance to neighboring properties. Noise beyond that of the standard performance sound.

6. Wind Turbine operations shall not constitute an undue safety hazard to neighboring properties due to repeated failure and/or breakage of the rotor blade(s). If in the opinion of the Township such a safety hazard and/or nuisance exists, they reserve the right to suspend and/or rescind the zoning permit until the safety hazard(s) have been corrected to the satisfaction of the Township.
7. Shall secure a building permit and comply with all PA UCC code.

#### **Section 4. CONDITIONAL USE**

Principle Solar Energy System and Wind Energy Conversion System Facilities are permitted conditional uses in the Industrial, Ag and PU zoning districts in accordance with the following requirements and conditions:

1. Applicant, Facility Owner, and/or Operator shall be required to submit a project narrative describing the overview of the project; project location, approximate generating capacity, the number of solar panel or wind turbines and their locations, representative types and heights of facilities and/or wind turbines to be constructed, including their generating capacity, dimensions, and respective manufacturers, description of any ancillary facilities to the energy system.
2. A Conceptual and/or Sketch Plan shall be submitted that includes identifying properties on which the Energy Facility will be located and adjacent properties, property lines, setback lines, access road and turnout locations, locations of substation and cabling and/or transmission lines and location and descriptions of any appurtenant structures, equipment, and/or supplies.
3. All on-site utility transmission lines and plumbing shall be placed underground.
4. Provide the township written confirmation that the public utility company to which the energy facility will be connected has been informed of the customer's intent to install a grid-connection system.
5. If the Principle Solar Energy System and/or Wind Energy Conversion System Facilities are located on property that is not owned by the applicant/facility owner/operator, a lease agreement is required upon submission of conditional use application for the duration of the Energy Facility operations.
6. All necessary leases, easements, or other agreements between the Energy Facility developer and property owner(s) must be recorded at the Erie County Recorder of Deeds and in place prior to commencing construction of the Energy Facility. A recorded copy is required to be submitted to the Township.
7. Other relevant studies, reports, certifications and approvals as may be reasonably requested by the township to ensure compliance with this ordinance, and such permits as are required by applicable state or federal law, rule or regulations.
8. The design of the Principle Solar Energy System and Wind Energy Conversion System shall conform to applicable industry standards.
9. Noise Standards/Shadow Flicker/Glare
  - a. Audible sound level shall not exceed 60 decibels from any property lines.
  - b. The facility owner and/or operator shall make reasonable efforts to minimize shadow flicker to any occupied building on a non-participating landowner's property.
  - c. Any energy facility and related energy equipment shall be placed in such a way that any glare does not project onto nearby structures or roadways.
10. Signal Interference
  - a. The facility owner and/or operator shall make reasonable efforts to avoid any disruption or loss of radio, telephone or similar signals, and shall mitigate any harm caused by the energy facility.
11. Security Requirements
  - a. A fence shall be installed around the perimeter of the solar farm and shall not exceed 8 ft. in height.
  - b. Location of fence is to be inside of the greenspace.

- c. Appropriate safety/warning signage concerning voltage shall be placed at ground mounted electrical devices, equipment, and structures.
- d. Electrical cabling - Any medium voltage cable within the boundary of energy facility shall be installed underground, with the exception of the power switchyard or within a substation. All electrical interconnections and distribution components shall comply with all applicable codes and public utility requirements.
- e. Energy facility lighting that are within air safety are required by the Federal Aviation Administration to comply with their regulations as well as the township's airport hazard ordinance no. 91-146.
- f. A clearly visible warning sign concerning voltage and/or any harmful equipment must be placed at eye level of the equipment and/or structure and must remain legible throughout the operation of facility.
- g. All access doors to energy facility electrical equipment and/or substations shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons. A Knox box is required prior to issuance of certificate of occupancy, per Township's Ordinance 04-185-1.
- h. For wind turbines – turbines shall not be climbable up to fifteen (15) feet above ground surface.

#### 12. Greenspace Screening

- a. Evergreen plantings must be installed around the site perimeter. Where natural forest vegetation (having a similar obscuring effect to the evergreen buffer) exists, this can be considered as fully or partially meeting the requirement. Evergreen buffer must be at least 6 ft. in height when planted and grow to a height of 15 ft. within 5 years. One (1) evergreen planting shall be planted every 30 lineal feet.
- b. The landscaping greenspace shall meet the requirements of the township's Subdivision and Land Development Ordinance.
- c. An alternative screening can be considered by the Planning Commission and Board of Supervisors.

#### 13. Use of Public Roads:

- a. The applicant/facility owner/operator 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 energy facility.
- b. The applicant shall secure a highway occupancy permit through the township engineer and comply with the permit regulations.

#### 14. Decommissioning

- a. The Energy Facility and all 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, at its expense.
- b. The Owner shall be presumed to have discontinued or abandoned the use, if no electricity is generated by such solar collector for a period of twelve (12) continuous months.
- c. Owner is required to notify the township immediately upon cessation or abandonment of operation.
- d. The owner/developer shall have twelve (12) months in which to dismantle and remove all energy related equipment and components, including, but not limited to, structures, turbines, panels, cabling, electrical components, roads, foundations, and other associated facilities on the property.
- e. The owner/operator shall submit Decommissioning Funds in the amount equal to net decommissioning costs as security for compliance. The township engineer will determine the estimated cost of decommissioning of wind turbines and/or any related structures and/or ancillary equipment which will be submitted to the developer in the engineer's review letter.

- f. The decommissioning financial security shall be posted with a bonding company or Federal or Commonwealth chartered lending institution chosen by the party posting the financial security, provided said bonding company or lending institution is authorized to conduct business within the Commonwealth.
- g. Such bond, or other security shall provide for, and secure to the public, the decommissioning of wind turbines and/or any related structures and/or ancillary equipment.
- h. If the Owner/Developer and the municipality are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer licensed as such in this Commonwealth and chosen mutually by the municipality 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 said engineer shall be paid equally by the municipality and the applicant or developer. Being consistent with SALDO, Section 306, G.
- i. The decommissioning funds shall be submitted to the township prior to the recording of the land development plan.

**Specific Principle Solar Energy Systems (PSES) Conditions:**

- 1. Lot Size:
  - a. Shall have a minimum lot size of 25 acres.
- 2. Height Requirements
  - a. Solar panels shall not exceed 14 feet (includes the rotation of solar panels to maximize exposure to sunlight throughout the day).
  - b. The power switchyard (structure that is connected to the solar energy facility to electric transmission lines is limited to the height needed to tie into the electric transmission lines).
  - c. Lightning rods attached to the power switchyard or solar farm related equipment shall not be subject to the height limitations. The height of lightning rods shall be limited to that height necessary to protect the power switchyard and solar farm equipment from lightning.
  - d. All other building structures shall meet the height requirements of that zoning district in which the facility is located.
- 3. Setbacks Requirements
  - a. Solar Energy Facilities and related structures and components shall meet the minimum setbacks:
    - 1) Abuts a residential use or zoning district a minimum of 300 ft. from property line.
    - 2) Abuts a non-residential use a minimum of 200 ft. from property line.
    - 3) Along a road right of way a minimum of 150 ft. from property line.

**Specific Wind Energy Conversion System (commercial use) Conditions:**

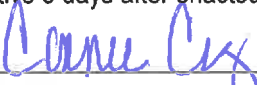
- 1. Lot Size:
  - a. Shall have a minimum lot size of 40 acres.
- 2. Height:
  - a. Height limits are subject to applicable Federal Aviation Administration (FAA) regulations regarding objects affecting navigable airspace and comply with Harborcreek Township Airport Hazard Ordinance. The Applicant shall provide acknowledgment from the FAA that such request indicating height of the wind energy system does not adversely affect the airspace of local airports.
- 3. Setbacks:
  - a. Wind turbines shall be setback from all property lines not less than 2.5 times the height of the turbine. The setback is measured from the center of the wind turbine base to the property line.

- b. Setbacks on Non-Participating Properties – wind turbines shall be setback from the property line(s) when abutting a non-participating (non-lessee) property owner not less than 5 times the height of turbine.
- c. Public Roads - wind turbines shall be setback from the nearest public road a distance of not less than 2 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.
- d. Liability Insurance – there shall be a valid general liability policy that covers bodily injury and property damage with limits of at a minimum of 1 million per occurrence a copy of liability insurance must be submitted to the township prior to issuance of zoning permit, naming Harborcreek Township as additional insured.

Once the conditional use application is approved, the applicant shall submit land development plan for review to the Planning Commission and Board of Supervisors.

**Section 5. REPEALER.** Any provisions of any prior enactments, including any amendments of the original zoning ordinance, No. 2010-200, inconsistent with the provisions contained herein, are hereby repealed and replaced by these provisions. The remaining provisions of Ordinance 2010-200, and its amendments shall remain effective and should be interpreted consistent with the terms of this amendment.

**BE IT HEREBY ENACTED AND ORDAINED** this 21<sup>st</sup> day of July, 2021 this amendment shall become effective 5 days after enacted.

  
 \_\_\_\_\_  
 Connie Cruz, Zoning Administrator

HARBORCREEK TOWNSHIP SUPERVISORS

  
 \_\_\_\_\_  
 Timothy J. May, Chairman


  
 \_\_\_\_\_  
 Stephen S. Oler, Supervisor

  
 \_\_\_\_\_  
 Dean S. Pepicello, Supervisor

ATTEST:

  
 \_\_\_\_\_  
 Shelley Hull, Assistant Secretary

I hereby certify that the foregoing ordinance was advertised in the Erie Times on July 5, 2021 and July 12, 2021, a newspaper of general circulation in the municipality and was duly enacted and approved as set forth at a regular meeting of the Harborcreek Township Board of Supervisors held on July 21, 2021.

  
 \_\_\_\_\_