

Ordinance No. 2024-02
OF
TOWNSHIP OF VENANGO, ERIE COUNTY, PENNSYLVANIA
AN ORDINANCE AMENDING THE TOWNSHIP OF VENANGO ORDINANCE NO. 2023-01 SOLAR ENERGY
SYSTEM

(A) Definitions

1. **Accessory Solar Energy Systems (ASES):** 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 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 reduce on-site consumption of utility power or fuels.
2. **Glare:** the effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.
3. **Photovoltaic Panel (PV):** A system that uses semi-conductor material to convert sunlight into electricity. PV panels can either be an individual cell ,a module or a series of modules forming an array. PV panels shall NOT contain any exterior surface lubricant, silicone, or other similar material. All exterior glass surfaces that shed precipitation must have lubricity incorporated and manufactured within the surface of the glass in manner to prevent the washing of such materials from the exterior surface and leeching into groundwater supplies.
4. **Principal Solar Energy System (PSES):** (often referred to as Solar Farm or Commercial Solar) 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 systems consist of one (1) or more free-standing 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.
5. **Solar Energy:** Radiant energy (direct, diffuse and/or reflective) received from the sun.
6. **Solar Panel:** That part of portion of a solar energy system containing one or more receptive cells or modules, the purpose of which is to convert solar energy for use in space heating or cooling, for water heating and/or for electricity.
7. **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 foundation or other structures used for or intended to be used for collection of solar energy.
 - a. **Solar Array:** A grouping of multiple solar modules with the purpose of harvesting solar energy.
 - b. **Solar Cell:** The smallest basic solar electric device which generates electricity when exposed to light.
 - c. **Solar Module:** A grouping of solar cells with the purpose of harvesting solar energy.

(B) Accessory Solar Energy Systems (ASES)

1. Regulations Applicable to All Accessory Solar Energy Systems:

- a. Accessory Solar Energy Systems are Permitted Use in All Zoning Districts.
- b. All ASES must comply with Performance Standards of this Section and the Venango Township Zoning Ordinances.
- c. All ASES require a permit except for ASES routine maintenance, or like-kind replacements do not require a permit.
- d. The ASES layout, design and installation shall conform to applicable industry regulations and with all applicable fire and life safety requirements.
- e. All on-site utilities, transmission lines less than 34.5 kV, and plumbing shall be placed underground to the greatest extent possible.
- f. The ASES shall be designed to use the energy created primarily for on-site use.
- g. All ASES should be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.
- h. All ASES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

2. Roof Mounted and Wall Mounted Accessory Solar Energy Systems:

A roof mounted or wall mounted ASES may be located on a principal or accessory structure.

- a. ASES mounted on roofs or walls of any building shall be subject to the maximum height regulation specified for structures within each of the applicable zoning districts.
- b. Wall mounted ASES shall comply with the building setbacks in the applicable zoning districts.
- c. Solar panels shall not extend beyond any portion of the roof edge.
- d. The property owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of holding the load of the ASES.

3. Ground Mounted Accessory Solar Energy Systems:

- a. Setbacks:
 - i. The minimum setbacks from side and rear property lines shall be equivalent to the building setbacks in the applicable zoning district.
 - ii. A ground mounted ASES shall not be located in the required front setback.
- b. Ground mounted ASES' are prohibited in front yards unless unique physical circumstances or conditions exist that preclude it from being located in a side or rear yard. Such physical conditions may include, but are not limited to topography, restricted solar access in other yards, other resource constraints, unusual situation of the principal use on the parcel, etc.
- c. Freestanding ground mounted ASES solar panels shall not exceed fifteen feet (15') in height above the ground elevation surrounding the systems.
- d. Coverage: The area beneath the ground mounted ASES is considered pervious cover. However, use of impervious construction materials under the system

- could cause the area to be considered impervious and subject to storm water planning.
- e. Ground mounted ASES shall not be placed within any legal easement or right-of-way location, or be placed within any storm water conveyance system, or in any other manner that would alter or impede storm water runoff from collecting in a construed storm water conveyance system.
 - f. If a ground mounted ASES is removed, any earth disturbance as a result of the removal of the ground mounted solar energy system shall be graded and returned to environmentally stable condition.

(C) Principal Solar Energy Systems (PSES).

- 1. Regulations applicable to all Principal Solar Energy Systems:
 - a. Principal Solar Energy Systems are a Conditional Use in the A-1 and I-1 Zoning Districts only. A PSES cannot be used as an accessory use for commercial or industrial activity on another property.
 - b. All applications for PSES shall include a project narrative to include the following:
 - i. an overview of the entire project.
 - ii. project location.
 - iii. Planned layout of the Solar Energy System (“SES”) to be installed including all required setbacks.
 - iv. Specifications of the SES to be installed to include:
 - i. the approximate generating capacity.
 - ii. the number, representative types, and heights of facilities to be constructed, including their generating capacity, dimensions, and respective manufacturers, and description of any ancillary facilities to the solar-energy system.
 - v. The identity and qualifications of the persons designing the system and plans for the construction of the facility.
- 2. PSES Permit Requirements:
 - a. Project Narrative per (C)1.b.
 - b. Site Plan. A Site Plan must be completed and include the following information:
 - i. Project commencement date and estimated completion date.
 - ii. Property lines and detailed physical features including roads and building structures of adjacent, non-project related properties within fifteen hundred (1,500) feet of the project property boundary.
 - iii. Documentation of all access or easement agreements obtained from owners of adjacent properties.
 - iv. Proposed changes to the landscape of the site, grading, vegetative clearing and planting, exterior lighting and screening vegetation or structures.
 - v. An electrical diagram detailing the Solar Energy System layout, solar collector installation, associated components, and electrical

- interconnection methods with all National Electric Code (NEC) compliant disconnects and over current devices.
- vi. A preliminary equipment specification sheet that documents all solar panels, significant components, mounting systems and inverters that are to be installed. The specification sheet shall include the country-of-origin certification on all components with place of manufacture and assembly. A Safety Data Sheet (SDS) specifying the properties and components of the PV cells and any other products or chemicals being used either permanently or temporarily.
 - vii. A list of all stored on-sight products requiring Safety Data Sheets must be bound and supplied to the Township volunteer fire department for reference as well as one stored on location for emergency and maintenance use.
 - viii. Venango township reserves the right to disallow any products that may present a potential hazard from contamination into soils, waterways, or the environment generally.
 - ix. The PSES shall not be placed within any legal easement or right-of-way location unless agreed to by easement or right of way. The PSES shall not be placed within any stormwater conveyance system or in any other manner that would alter or impede stormwater runoff from collection in a constructed stormwater conveyance system.
- c. Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the Solar Energy System. Such information about the final system installer shall be submitted, along with proof of insurance, prior to the issuance of a building permit.
 - d. Name address and contact information of the project Applicant, as well as all the property owners, demonstrating their consent to the application and use of the property for the PSES.
 - e. A detailed plan outlining the PV maintenance and property upkeep such as mowing, trimming and snow removal of access roads. No chemical herbicides are permitted. This plan shall also include the contact information of the maintenance personnel.
 - f. A detailed plan outlining the regrading, topsoil replacement and reseeding of any areas when an individual ground mounted PSES is removed.
 - g. An affidavit executed by the PSES facility owner acknowledging the following requirements:
 - i. All in-ground panel support posts must be drilled and filled with concrete. No pile-driving of support posts, whether for Solar Panels, fencing or for facilities/building footings will be permitted.
 - ii. All panels must have component listed and SDS sheets supplied and available for inspection.
 - iii. Ground-mounted PSES shall not exceed fifteen (15) feet in height.
 - iv. Solar panels shall be located no closer than fifty (50) feet to trees. No more than 5% (five percent) of all existing forested land on any given

parcel shall be cleared to host a Solar Energy System by a PSES facility owner or landowner in preparation of the project.

- v. All blasting is prohibited.
- vi. Pre, post and during construction work hours shall be limited to Monday through Friday between the hours of 8AM and 6PM and Saturday between the hours of 9AM and 4PM, Eastern Standard Time.
- vii. All on-site transmission and plumbing lines shall be placed underground.
- viii. PSES shall be setback (a) a minimum of three hundred feet (300') from any property line of an adjoining parcel on which a residential building is located, and (b) a minimum of three hundred feet (300') from any right of way or public road and (d) a minimum of one hundred feet (100') from any other property line. Fencing, visual buffers and emergency access roads may be located within the setback areas. If the PSES occupies two or more adjacent properties, setbacks between the adjacent properties shall be waived along the shared property boundaries so that the PSES may be installed continuously and make the most efficient use of the project area.
- ix. The entire perimeter of each area of installed Solar Related Equipment for the project must be enclosed with a seven (7) foot tall chain-link fence per the NEC.
- x. Locked access gates shall be at all road entrances.
- xi. Solar Panels that will be adjacent to residential areas will need to have an additional fifty (50) foot wide "natural" buffer on the outside of the chain-linked fence. This can be a natural mound-buffer of native vegetation planted earth berms and or decorative fencing that provides a reasonable visual and lighting screen to reduce the view of the PSES from residential dwellings, or in lieu of the mound buffer can be 2 alternative rows of native "evergreen" trees of a minimum height of ten (10) foot that will provide year-round coverage of the facility behind the fencing.
- xii. No portion of the PSES shall contain or be used to display advertising. The manufacturer's name and equipment information or indication of ownership shall be allowed on any equipment of the PSES provided they comply with prevailing sign regulations.
- xiii. All PSES shall be designed and installed to prevent and eliminate glare onto nearby structures and roadways, and to prevent and eliminate glare from having a substantial adverse impact on neighboring or adjacent uses.
- xiv. The PSES owners and/or operator shall maintain a phone number throughout the life of the project for the Venango Township Zoning Administrator to contact with inquiries and verified complaints. The PSES owner and /or operator shall make reasonable efforts to respond to the inquiries and complaints within 46 hours. A contact name, with knowledge of the system, must be provided to Venango Township with updates due to employee advancement or turnover.

- h. An affidavit or similar evidence of agreement between the property owner and the PSES owner and/or operator demonstrating permission to apply for necessary permits for construction and operation of a solar-energy facility.
 - i. All PSES layout, design, installation and maintenance shall conform to applicable industry standards such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing Materials (ASTM), Institute of Electrical and Electronics Engineering (IEEE), Electrical Testing Laboratory (ETL), Solar Energy Industries Association (SEIA), North American Board of Certified Energy Practitioners (NABCEP) and shall comply with the PA Uniform Construction Code as well as all other applicable fire and life safety requirements.
 - j. All PSES applications shall be required to comply with all the Venango Township Subdivision and Land Development requirements, all the terms and conditions of all Venango Township Ordinances and Performance Standards as well as all applicable permit requirements, codes and regulations of Erie County, Venango Township, the Commonwealth of Pennsylvania, and Federal permitting requirement.
 - k. All PSES installers must demonstrate they are listed as a certified installer on the PA Department of Environmental Protection's (DEP) approved solar installer list or that they meet the criteria to be a DEP approved installer by demonstrating certification by the North American Board of Certified Energy Practitioners (NABCEP) as well as all other applicable industry standards and regulatory requirements.
 - l. All on-site utility transmission lines less than 34.5 kV and plumbing shall be placed underground.
 - m. The PSES owner shall provide the Township with written confirmation that the public utility company to which the PSES will be connected has been informed of the customer's intent to install a grid connected system as well as all public utility company responses, if any.
3. Studies and Notifications: The following studies and notifications will be required during the Application process and must be paid for by the PSES facility owner during the Application process.
- a. Stormwater Management Plan.
 - b. PA Fish and Wildlife impact study.
 - c. PA Game Commission impact study.
 - d. Soil samples for a baseline of the original condition of the property to be collected from one (1) acre parcels containing solar panels throughout the entire project area. Residential and/or commercial sites located within fifteen hundred (1,500) feet of a project site will also be required to have soil samples taken to provide for a baseline of those properties in the event that a future problem arises in contamination or disturbance in original soils from the proposed PSES site.
 - e. Well water samples of all residents and other commercial facilities within fifteen hundred (1,500) feet of the planned PSES site for a baseline. This will be

- followed by sampling on a semi-annual basis during the entire life of the project, which costs to be covered by the PSES facility owner.
- f. PA Department of Environmental Protection (DEP) and the U.S. Army Corps of Engineers joint permit.
 - g. PA Department of Conservation and Natural Resources (DCNR)
 - h. Federal Aviation Administration (FAA).
 - i. Bonding of roadways must be provided before permit issued.
 - j. Current certificates of insurance for all contractors, sub-contractors and owners shall be provided and submitted to the Zoning Officer before construction commences.
 - k. Other studies and notifications may be required depending on the individual plans, locations, size, etc., as may be required by the Township.
4. Emergency Access and Requirements
 - a. Emergency vehicles may need access from time-to-time to both the interior and exterior of the site. All interior and exterior access roads must be maintained and passable for year-round use.
 - b. The access gates to the interior of the site will need to be a minimum of twelve (12) feet wide with smooth, hard gravel or paved roadways at least sixteen (16) feet wide and able to support sixty thousand (60,000) pound vehicular traffic.
 - c. A storage building on site will be available to contain enough foam additive to support a structural fire emergency should on arise.
 - d. PSES over one hundred (100) acres will require one (1) or more water towers or in-ground tanks of seven thousand (7,000) gallon capacity to be built on-site to provide adequate water for initial fire suppression services.
 - e. Initial training for responding fire departments will be required for all personnel that would be called upon to engage in an emergency at the site with annual refresher training to maintain safely compliance. All training shall be paid for by the PSES facility owner.
 - f. All specialized gear and equipment will be provided to the Township fire department or kept on-site in a storage building provided by the PSES facility owner.
 5. Total Venango Township Land Use: The total land for use as a PSES in the Township will be Five Hundred (500) aggregate acres. For purposes of this section, "Aggregate acres" of land for PSES use includes all land leased by the PSES facility owner to include both useable and non-useable land.
 - a. If a PSES is being used as an accessory use for commercial or industrial activity on another property, The Township shall be informed of the intent of the PSES.
 - b. The display of advertising is prohibited except for reasonable identification of the manufacturer of the system.
 - c. All PSES shall be situated to eliminate concentrated glare onto nearby structures or roadways.
 - d. All solar energy systems shall be designed and located to ensure solar access without reliance on and/or interference to adjacent properties.

6. Ground Mounted Principal Solar Energy Systems:
- a. The PSES shall meet the lot size requirements of the applicable zoning districts.
 - b. All PSES solar panels adjacent to any right-of-way or public road and PSES adjacent to any residential district (R-1; R-2) or parcel with an existing residential structure must follow a 300-foot setback. If the PSES occupies two or more adjacent properties, setbacks between the adjacent properties shall be waived along the shared property boundaries so that the PSES may be installed continuously and make the most efficient use of the project area.
 - c. The ground mounted PSES solar panels shall not exceed 15 feet in height.
 - d. Screening and Vegetation:
 - i. Street screening shall consist of slat fencing or shrubs, a minimum of 6' high when planted and 10' high when mature, shall be planted every 15 feet along property abutting a public right-of-way. Shrubs shall be planted adjacent to or outside of the road right-of-way. Solar perimeter fence shall be placed between shrubs and solar panels. Reasonable modifications to these requirements may be requested.
 - ii. Residential buffer screening shall consist of an additional fifty (50) foot wide "natural" buffer on the outside of the chain-linked fence. This can be a natural mound-buffer of native vegetation planted earth berms and or decorative fencing that provides a reasonable visual and lighting screen to reduce the view of the PSES from residential dwellings, or in lieu of the mound buffer can be 2 alternative rows of native "evergreen" trees of a minimum height of ten (10) foot that will provide year-round coverage of the facility behind the fencing. Reasonable modifications to these requirements may be requested.
 - iii. Perimeter fence shall be placed between shrubs and solar panels.
 - iv. Widespread use of herbicides to control ground cover growth is prohibited.
 - e. Unless agreed to by easement or right-of-way, ground mounted PSES shall not be placed within any legal easement or right-of-way location. Ground mounted PSES shall not be placed within any storm water conveyance system, or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system.
 - f. Impervious Coverage: The area beneath the ground mounted PSES is considered pervious cover. However, use of impervious construction material under the system could cause the area to be considered impervious to the overall lot coverage requirement. PSES owners are encouraged to use low maintenance and low growing vegetative surfaces under the system as a best management practice for stormwater management.
 - g.

7. Security:
 - a. In accordance with NEC, all ground mounted PSES shall be completely enclosed by seven (7) foot high fencing with locking gate in accordance with NEC code requirements.
 - b. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the PSES informing individuals of potential voltage hazards.
 - c. Access drives to solar inverter stations are required to allow for maintenance and emergency management vehicles.
 - d. Lighting: The ground mounted PSES shall not be artificially lit except to the extent required for safety or applicable federal, state or local authority.
8. Solar Grazing:
 - a. Solar grazing with sheep is highly encouraged and preferred method of controlling ground cover growth. Township believes co-pasturing is very beneficial to maintain our rural character.
 - b. Requirements:
 - i. Provide water well for sheep if public water or reliable on-lot (stream or pond) is not available.
 - ii. Seed fenced area with grazing friendly seed mix.
 - iii. Where applicable, install fencing gates between adjoining solar parcels for moving sheep and line up gates between separately fenced sections of the arrays.
 - iv. Allow farmers to use portable low voltage energizers and fences OR consider installing low 3-foot interior fences to facilitate best grazing/vegetation management.
 - v. Consider installing pipe fences and gates around inverter/transformer pads.
 - vi. Allow signs on road gates for sheep farmers to advertise their organic, value-added products.
9. Roof Mounted Principal "Solar Energy Systems":
 - a. The property owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of holding the load of the PSES.
 - b. PSES mounted on roofs of any building shall be subject to the maximum height regulations specified for buildings within the applicable zoning districts.
10. Local Emergency Services:
 - a. The applicant shall provide a copy of the project summary and site plan to local emergency services, including fire department(s).
 - b. The applicant shall cooperate with emergency services to develop and coordinate implementation of an emergency response plan for the solar energy facility.
11. Township Roads:
 - a. All applicants pursuant to this Ordinance shall state in its application, the exact road, or roads it intends to travel upon in going to and from any project

development site with heavy equipment and shall further determine the total miles of township roads to be traversed in each direction for the project.

- b. The Supervisors of Venango Township, may in the direction of the Roadmaster and when necessary for the protection of the township roads, prohibit the use of heavy hauling equipment on township roads and rights-of-way.
- c. The Supervisors of Venango Township may also require, at the discretion of the Township Roadmaster, that applicant post bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable to Venango Township to repair or replace any damage to Township roads.

12. Decommissioning:

- a. The PSES facility owner and/or Applicant shall provide the Township with an irrevocable bond in the amount of fifty (50%) of the projected cost of the project, subject to a final audit of actual costs, at which time the bond may be adjusted to secure the expense of dismantling and removing the PSES and restoration of the land to its original condition based on the baseline analysis performed during the application process. This restoration would include, but not be limited to, soil remediation, forestry planting, grasses, and vegetation of the original type unless a signed letter is received from the landowner stating that they would like the land to be used for another opportunity. The bond will be reviewed every eighteen (18) months for valuation purposes and adjusted at that time to meet any increased potential costs associated with decommissioning. Such increased costs will need to be covered by additional bonds to assure complete disassembly requirements are met. An affidavit, or similar evidence, signed by the property owner and the PSES facility owner affirming a lease agreement with a decommissioning clause (or similar) and a Successors and Assigns clause. The Successors & Assigns clause must bind those successors and assigns to the lease agreement.
- b. The PSES owner is required to notify the Township, in writing, immediately upon cessation or abandonment of the operation. The PSES shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of six (6) continuous months and the PSES owner has not initiated necessary remedial actions to return the PSES to a generating state. If the PSES owner fails to dismantle and/or remove the PSES within twelve (12) months of cessation or abandonment, the Township may complete the decommissioning at the property owner's expense.
- c. Disturbed earth shall be graded and re-seeded unless the property owner requests in writing that the access roads or other land surface areas not be restored.

(D) Administration and Enforcement:

1. Applications:

- a. Permit applications shall document compliance with this Section and shall be accompanied by drawings showing the location of the solar energy system on the building or property, including property lines. Permits must be kept on the premises where the solar energy system is located.

- b. The permit shall be revoked if the solar energy system, whether new or pre-existing, is moved or otherwise altered, either intentionally or by natural forces, in a manner which causes the solar energy system not to be in conformity with the Section. In the case of nonconformity caused by natural forces, the owner shall have a maximum of 90 days to initiate necessary remedial action to bring system back in conformance.
 - c. The solar energy system must be properly maintained and be kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety, or general welfare.
 - d. For PSES systems, Conditional Use approval is required prior to obtaining land development plan approval. The Conditional Use approval and land development plan processes can be concurrent. All necessary storm water plan approval, E & S and NPDES permits must be approved prior to receiving final Supervisor approval of the land development plan. An approved land development plan is required for application of a Zoning Permit.
 - e. ASES systems for single-family residential use are exempt from the Land Development process, but a Zoning Permit is required.
2. Fees and Costs:
- a. The applicant shall pay all permit application fees when seeking approval of a solar energy system under this Section.
 - b. The applicant shall, prior to receipt of an approved permit, submit funds which will reimburse the Township for any actual fees or costs incurred arising out of or related to the Application. The costs shall include, but not limited to, engineering, consultant, other subject matter experts and legal fees. Any funds remaining after the project completion shall be returned to the applicant.
3. Enforcement:
- a. Any applicant who or which shall violate or permit to be violated the provisions of this Section shall, upon being found liable therefore in a civil enforcement proceeding brought by Venango Township before a District Magistrate, pay a fine in accordance with Section 617.2 of the Pennsylvania Municipalities Planning Code and the Venango Township Zoning Ordinance, plus all courts costs, including reasonable attorney's fees incurred by the Township as a result thereof.
 - b. In addition, the Township shall also be entitled to recover from any applicant all the Township's costs or fees arising out of or related to the application or enforcement of this section. Such costs may also include those to remedy violations of this section or to abate nuisance. The costs shall include, but not be limited to engineer fees, geologist fees, attorney fees, zoning officer fees, and staff/employee time. The costs may be collected as a Municipal Claim under applicable law against the property upon which the solar energy system, or portions thereof, is located.

This ordinance shall become official and effective five (5) days from final passage by the Board of Supervisors of Venango Township.

We, the undersigned, do hereby certify that the above Ordinance was finally passed by the Board of Supervisors of the Township of Venango, Erie County, Pennsylvania on this the ____ day of _____, 2024.

VENANGO TOWNSHIP BOARD OF SUPERVISORS

Dean Curtis, SUPERVISOR

Mike Vogel, SUPERVISOR

David Austin, SUPERVISOR

ATTEST:

Mike Vogel, SECRETARY