

**AN ORDINANCE AMENDING CHAPTER \_\_\_ (RELATING TO ZONING), PART 2 (DEFINITIONS) AND PART \_\_\_ (GENERAL REGULATIONS) OF THE TOWNSHIP OF \_\_\_\_\_ CODE OF ORDINANCES, AMENDING DEFINITIONS, AND AMENDING AND ESTABLISHING REQUIREMENTS FOR THE INSTALLATION, OPERATION AND DECOMMISSIONING OF SOLAR ENERGY SYSTEMS AS ACCESSORY USES AND PRINCIPAL USES**

**Section 1 - Introduction**

**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**, the Municipality, as defined below seeks to promote the general health, safety and welfare of the community by adopting and implementing this Ordinance providing for access to and use of solar energy systems; and

**WHEREAS**, the purpose of this Ordinance is to set requirements for solar energy systems, and;

**WHEREAS**, Chapter \_\_, ZONING is to be amended with the addition of language to meet the mentioned goals;

**IT IS HEREBY ENACTED AND ORDAINED** by the governing body of the \_\_\_\_\_ Municipality is as follows:

**Section 2 – Definitions**

**The following Definitions are added to DEFINITIONS of the Zoning code with the following:**

**ACCESSORY BUILDING:** A building which (1) is subordinate to and serves a principal building; (2) is subordinate in area, extent or purpose to the principal building; (3) contributes to the comfort, convenience, or necessity of occupants of the principal building; and (4) is located on the same lot as the principal building.

**ACCESSORY SOLAR ENERGY SYSTEM (ASES)** (often referred to as "residential 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 on-site use. An accessory solar energy system consists of one or more freestanding 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.

**APPLICANT:** The individual or entity seeking approval for a solar energy system pursuant to this Ordinance. The owner of the real property upon which the solar energy system shall be erected, as well as the Applicant, shall be responsible for compliance with this Ordinance.

**ENVIRONMENTALLY STABLE:** The proper placing, grading, construction, reinforcing, lining, and covering of soil, rock or earth to ensure their resistance to erosion, sliding or other movement.

**MUNICIPALITY:** Sandy Township, Clearfield County, Pennsylvania.

**PRINCIPAL BUILDING:** A building or structure in which is conducted the principal use of the lot on which the building or structure is located.

**PRINCIPAL SOLAR ENERGY SYSTEM (PSES):** 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.

**SOLAR EASEMENT:** A solar 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 solar energy systems.

**SOLAR GRAZING:** The practice of grazing livestock on solar farms. Sheep are the most common solar grazing animals, as they are the best-suited species. For the safety of low-mount solar arrays, goats, cows, pigs, and horses are not recommended.

**SOLAR ENERGY:** Radiant energy (direct, diffuse and/or reflective) received from the sun.

**SOLAR ENERGY SYSTEM:** A solar photovoltaic cell, module, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat.

1. **SOLAR ARRAY:** A grouping of multiple solar modules with the purpose of harvesting solar energy.

2. **SOLAR CELL:** The smallest basic solar electric device which generates electricity when exposed to light.

3. **SOLAR MODULE:** A grouping of solar cells with the purpose of harvesting solar energy.

**SOLAR RELATED EQUIPMENT:** Items including a solar photovoltaic cell, module, or array, or solar hot air or water collector device panels, lines, pumps, batteries, mounting brackets, framing and possibly foundations or other structures used or intended to be used for collection of solar energy.

**B. Modifications to Zoning Code DEFINITIONS:**

The following terms shall replace and supersede any prior definitions contained within Part 2, Definition of Terms, (27-201) Chapter 27 Zoning:

1. Accessory Building:

ACCESSORY BUILDING: A building which (1) is subordinate to and serves a principal building; (2) is subordinate in area, extent or purpose to the principal building; (3) contributes to the comfort, convenience, or necessity of occupants of the principal building; and (4) is located on the same lot as the principal building.

2. Solar Skyscape Easement is hereby deleted and replaced with the following term:

**Section 3 - Accessory Solar Energy Systems (ASES)**

A. Regulations Applicable to All Accessory Solar Energy Systems:

1. Exemptions

- a. ASES with an aggregate collection and/or focusing area of 16 square feet or less are exempt from this ordinance.

2. Accessory solar energy systems are a permitted use in all zoning districts.

3. The ASES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with the Municipality's Building Code, and with all applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.

4. All on-site utility, transmission lines, and plumbing shall be placed underground to the greatest extent possible.

5. The ASES shall be designed to use all energy created solely on site.

6. Signage shall comply with the prevailing sign regulations.

7. All solar energy systems should be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.

8. All ASES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

## B. Roof Mounted and Wall Mounted Accessory Solar Energy Systems:

1. A roof mounted or wall mounted ASES may be located on a principal or accessory building.
2. ASES 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 applicable zoning districts,
3. Wall mounted ASES shall comply with the setbacks for principal buildings in the applicable zoning districts
4. Solar panels shall not extend beyond any portion of the roof edge.

## C. Ground Mounted Accessory Solar Energy Systems:

1. Setbacks.
  - a. The minimum setbacks from side and rear property lines shall be equivalent to the accessory building setbacks in the applicable zoning district,
  - b. A ground mounted ASES shall not be located in the required front setback.
  - c. Ground mounted ASES are prohibited in front yards.
2. Freestanding ground mounted ASES shall not exceed the maximum accessory structure height in the applicable zoning district
3. Coverage.
  - a. 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 the overall lot coverage requirement for the applicable zoning district,
4. 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.
5. 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 re-seeded.

## **Section 4 - Principal Solar Energy Systems (PSES)**

### **A. Regulations Applicable to All Principal Solar Energy Systems:**

1. PSES constructed prior to the effective date of this Section shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing PSES, whether or not existing prior to the effective date of this Section that expands the PSES shall require approval under this Ordinance. Routine maintenance or replacements do not require a permit.
2. Principal solar energy systems (PESES) are a permitted use by special exception in Residential High Density (R-1) and Residential Urban (R-U) Zoning Districts.
3. Principal solar energy systems (PSES) are a permitted use in Residential Agricultural (R-A) Industrial (I), Commercial Light Industrial Highway (C-HLI), Commercial (C) Zoning Districts.
4. In Agricultural Zoning Districts, no more than 20 percent of the entire area for development shall consist of Class I and Class II prime agricultural soils as defined by the then current version of the NRCS Custom Soil Resource Report.
5. The PSES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory(ETL),Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with Municipality's Building Code, and with all other applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.
6. All on-site utility transmission lines and plumbing shall be placed underground to the greatest extent feasible.
7. The owner of a PSES shall provide the Municipality 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 and approved of such connection. The owner shall provide a copy of the final inspection report or other final approval from the utility company to the Municipality prior to the issuance of a certificate of use and occupancy for the PSES.
8. If a PSES is being used as an accessory use for commercial/industrial activity on another property, then the municipality shall be informed of the intent of the PSES.
9. Signage shall be limited to the manufacturer's name and equipment information or indication of ownership on any equipment of the PSES provided with the prevailing sign regulations.

10. All PSES shall be placed such that concentrated solar radiation or glare does not project onto nearby structures or roadways. The applicant has the burden of providing that any glare produced does not have significant adverse impact on neighboring or adjacent areas.

11. All solar energy systems should be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.

12. For Emergency purposes, the PSES owner and/or operator shall maintain a phone number and address of a person responsible for the public to contact with inquiries and complaints throughout the life of the project and provide this number, address and name to the Municipality, the same to be updated when changed. The PSES owner and/or operator shall make reasonable efforts to respond to the public's inquiries and complaints no later than 3 days after the complaint was filed.

13. PSES owners shall properly maintain all panels, structures and equipment and shall repair or replace any damaged or visibly degraded components. Components shall be replaced in kind, or with equivalent parts or materials, consistent with the original design and manufacturer's specifications and shall be completed within sixty (60) days of the mailing of a notice by the Municipality of the need to make repairs or replacement. Said notice to be mailed by First Class Mail to the said responsible person provided for herein.

14. A Contingency Plan of Emergency Procedures shall be developed by the PSES owner consistent with standard operating practices of the industry and furnished to the Municipality, the local fire company and the County Department of Emergency Services at the time the application for a permit is submitted. The same shall be reviewed and updated, if necessary, every five (5) years.

## B. Ground Mounted Principal Solar Energy Systems:

### 1. Minimum Lot Size

a. The PSES shall meet the lot size requirements of the applicable zoning district.

### 2. Setbacks

a. PSES shall comply with the setbacks of the applicable zoning districts for principal buildings.

b. If the PSES occupies two or more adjacent properties, setbacks between the adjacent properties shall be respected for each individual tract of land. Only utilities and fencing can be shared but all other building setbacks must be met.

### 3. Height

a. Ground mounted PSES shall comply with the building height restrictions for principal buildings of the applicable zoning district.

#### 4. Impervious Coverage

a. The area beneath the ground mounted PSES is considered pervious cover. However, use of impervious construction materials under the system could cause the area to be considered impervious and subject to the overall lot coverage requirement for the applicable zoning district. Gravel or paved access roads servicing the PSES shall be considered impervious coverage and calculated as part of the impervious coverage limitations.

#### 5. Stormwater

a. The Applicant shall submit a storm water management plan that demonstrates stormwater from the PSES will infiltrate into the ground beneath the PSES at a rate equal to that of the infiltration rate prior to the placement of the system.

b. PSES owners are encouraged to use low maintenance and/or low growing vegetative surfaces under the system as a best management practice for stormwater management.

#### 6. Screening

a. Ground mounted PSES shall be screened from adjoining residential uses or zones according to the standards found in the controlling ordinance.

b. Ground mounted PSES shall be screened from any adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of plant materials which provide a visual screen. In lieu of a planting screen, a fence that provides visual screening and meets requirements of the controlling ordinance may be used.

c. Street screening shall consist of slat fencing or shrubs, six feet to eight feet high when mature, that shall be planted every 15 feet of 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.

7. Ground mounted PSES 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 constructed storm water conveyance system.

#### 8. Security

a. All ground mounted PSES shall be completely enclosed by fencing that consists of a minimum eight (8) foot high fence with a locking gate, or as designated by the municipality.

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.

9. Access drives are required to allow for maintenance and emergency management vehicles. The minimum cartway width is 16'.

10. If a ground mounted PSES is removed, any earth disturbance as a result of the removal of the ground mounted solar energy system must be graded and re-seeded.

11. Solar grazing is only permitted in Residential Agricultural (R-A) Zoning Districts. Solar grazing with sheep is highly encouraged and a preferred method of controlling ground cover growth. Benefits of solar grazing:

(a) Farm income is more diversified and increases family farm viability.

(b) Farmland conservation and keeps farmland in farm production.

(c) Added visual benefit and aesthetics for the community.

(d) Solar grazing contributes dairy, meat, and wool to the locally sourced, renewable farm market.

(e) With time, planning, and good management, sheep can do 90% to 100% of the vegetative maintenance work inside the fence, eliminating the need for mowing and reducing emissions and costs.

(f) If solar grazing to be provided, the following features are to be supplied, provided or allowed:

(1) Provide a water well for sheep if public water or reliable on-lot water (stream or pond) is not available.

(2) Seed fenced area with grazing-friendly seed mix, such as Fuzz & Buzz seed mix or similar.

(3) Where applicable, install fencing gates between adjoining solar parcels for moving sheep and line up gates between separately fenced sections of the arrays.

(4) Allowance to farmer to use portable low-voltage energizers and fences. In lieu of this fencing, installation of low (three-foot) interior fences to facilitate best grazing/vegetation management.

(5) Install pipe fences and gates around inverter/transformer pads.

(6) Allow signs on road gates for sheep farmers to advertise their organic, value-added products.

### C. Roof Mounted Principal Solar Energy Systems:

1. The owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of holding the load of the PSES.

2. PSES mounted on roofs of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district,

## **Section 5 – Decommission**

- A. The facility owner and operator shall, at its expense, complete decommissioning of the solar facility, or individual solar panels, within 12 months after the end of the useful life of the facility or individual solar panels. The solar facility or individual solar panels will presume to be at the end of its useful life if no electricity is generated for a continuous period of 12 months.
- B. Decommissioning shall include removal of solar panels, buildings, cabling, electrical components, roads, foundations to a depth of 36 inches, and any other associated facilities.
- C. Disturbed earth shall be graded and reseeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
- D. An independent and certified professional engineer shall be retained to estimate the total cost of decommissioning ("decommissioning costs") without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment ("net decommissioning costs"). Said estimates shall be submitted to the Township after the first year of operation and every fifth year thereafter.
- E. The facility owner or operator shall post and maintain decommissioning funds in an amount equal to net decommissioning costs, provided that at no point shall decommissioning funds be less than 25% of decommissioning costs. The decommissioning funds shall be posted and maintained with a bonding company or Federal or Commonwealth chartered lending institution chosen by the facility owner or operator and participating landowner posting the financial security, provided that the bonding company or lending institution is authorized to conduct such business within the Commonwealth and is approved by the Township of Sandy.
- F. 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.
- G. If the facility owner or operator fails to complete decommissioning within the period prescribed by Subsection II(11)(a), then the landowner shall have six months to complete decommissioning.
- H. If neither the facility owner or operator, nor the landowner complete decommissioning within the periods prescribed by Subsection II(11)(a) and (g), 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.

- I. 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 Township in order to implement the decommissioning plan.

## **Section 6 - Administration and Enforcement**

### **A. Applications**

1. Permit applications shall document compliance with this Ordinance 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.
2. The permit shall be revoked if the solar energy system, whether new or preexisting, 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 this Ordinance.
3. 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.
4. An approved land development plan shall accompany all permit applications excluding those for ASES which are accessory to a single-family residential use.

### **B. Fees and Costs**

1. The Applicant shall pay all permit application fees and inspection fees when seeking approval of a solar energy system under this Ordinance, which fees shall be set by resolution.
2. The Applicant shall, prior to receipt of an approved permit, reimburse the Municipality for any actual fees or costs incurred arising out of or related to the Application (collectively the "Costs"). The Costs shall include, but not be limited to, engineering, zoning officer, building code official and legal fees.

### **C. Modifications**

The Municipality may grant modification of the requirements of one or more provisions of this Ordinance if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the property in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of the Ordinance is observed. All requests for a modification shall be in writing and shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the Ordinance involved and the minimum modification necessary.

D. Enforcement

Reference current Zoning Ordinance Enforcement Requirements:

**§ 27-820. Enforcement and Modification of Provisions of the Plan.** [Ord. 2010-1, 1/18/2010]

**27-911. Administration and Enforcement.** [Ord. 2010-1, 1/18/2010]

**Section 7 – Construction and Severability**

A. The provisions of this Ordinance shall be construed to the maximum extent possible to further the purposes and policies set forth herein, as consistent with applicable state statutes and regulations. If the provisions of this section and state law are in conflict, then state law shall prevail.

B. It is the intention of the Municipality’s governing body that the provisions of this Ordinance are severable and if any provisions of this Ordinance shall be declared unconstitutional or invalid by the judgment or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining provisions of this Ordinance.

**Section 8 – Repealer**

All prior ordinances that are inconsistent herewith are hereby repealed to the extent of such inconsistency.

**Section 9 – Effective Date**

This Ordinance shall become effective five (5) days after its enactment.

Enacted and Ordained this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_.

Attest: \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
President/Chair