

**BRADY TOWNSHIP
LYCOMING COUNTY, PENNSYLVANIA**

ORDINANCE NO. 23-01

1. INTENT AND AUTHORITY: As authorized by the Second Class Township Code and the Municipal Planning Code, Brady Township, hereby intends to amend its Zoning Ordinance to provide for and regulate Principal Solar Energy Systems.

2. Section 1401 of the Zoning Ordinance ("Definitions") is amended by adding the following:

ACCESSORY SOLAR ENERGY SYSTEM: An area of land or other area used for a solar energy 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. Ground-mounted or freestanding Solar Energy Systems with an output size of not greater than 10kw shall be considered Accessory Solar Energy Systems. Roof Mounted Solar Energy Systems on the roofs of buildings on-site used primarily for on-site use shall have no limit as to energy output. 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.

FINANCIAL SECURITY: A form of security including a cash deposit, surety bond, irrevocable letter of credit, cashier check or escrow account from a federal or Commonwealth chartered lending institutions in the amount of 110% of the total proposed decommissioning costs and in a form satisfactory to the Brady Township Board of Supervisors and the Township solicitor.

PRINCIPAL SOLAR ENERGY FACILITY (PSEF) or PRINCIPAL SOLAR ENERGY SYSTEM (PSES): An area of land used for solar collection system principally 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. Their definition does not include accessory solar energy systems or facilities.

SOLAR ARRAY: A system of a group of solar panels connected together.

SOLAR ARRAY CONNECTION: The low-voltage electric lines which connects Solar Related Equipment.

SOLAR EASEMENT: A solar easement means a right, expressed as an easement, restrictive 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 ENERGY: Radiant energy (direct, diffuse and/or reflective) received from the sun.

SOLAR ENERGY PROJECT: A grouping of two or more Solar Energy Facilities which are held by owner or leased to a common lessor and which are part of a single solar energy production development project.

SOLAR ENERGY PROJECT OWNER: The individual, group or entity responsible for the permitting, construction and operation of Solar Energy Facility or Solar Energy Project (SEF Developer).

SOLAR FACILITY CONNECTION: The high voltage electric conveyance lines which connect a Solar Energy Facility in the Solar Project Connection.

SOLAR PROJECT CONNECTION: The electric conveyance lines which connect a Solar Energy Facility to the high-voltage electric interconnection grid.

SOLAR PANEL: That part or portion of a solar energy system containing one or more respective 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.

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

TOWNSHIP: The Board of Supervisors of Brady Township.

WILDLIFE CORRIDOR: An area of habitat connecting wildlife populations separate by human activities or structures (such as roads, development, or logging).

3. Section 304 is amended by adding to "Principal Permitted Uses and Structure" the following:

"15. Principal Solar Energy Facility or Principal Solar Energy System (PSES) (See 428)."

4. Section 305 is amended by adding to the "Principal Permitted Uses and Structures" the following:

"11. Principal Solar Energy Facility or Principal Solar Energy System (PSES) (See 428)."

5. Section 307 is amended by adding to "Conditional Uses" the following:

"7. Principal Solar Energy Facility or Principal Solar Energy System (PSES) (See 428)."

6. Article 4 ("Supplemental Use Regulations") is amended by adding a new Section 428 as following:

"428. Principal Solar Energy Facility or Principal Solar Energy System (PSES)."

A. **General Criteria:** All solar energy systems or facilities, whether principal or accessory, shall have layout, design and installation that shall conform to "good industry practice"; "good industry practice" shall mean the practices, methods, standards and acts engaged in or approved by a significant portion of the solar power industry for similar facilities in similar geographic areas that are similar in size and complexity as the same may change from time to time that, at a particular time, in the exercise of reasonable professional judgment in light of the facts known the time a decision was made, would have been expected to accomplish the desired result in a manner consist with the applicable law, regulation, codes, good business practices, reliability, safety, environmental protection economy, expedition and shall comply with the PA Uniform Construction Code and with all other applicable fire and life safety requirements.

B. **Permit Requirements:** The PSEF shall comply with the County or municipal SALDO requirements through the submission of a land development plan. The installation of a PSEF shall comply with all applicant permit requirements, codes and regulations, including highway occupancy driveway permits and road bonding requirements. The PSEF owner and/or operator shall repair, maintain and replace the PSEF and/or related solar equipment during the term of the permit in a manner consisted with industry standards as needed to keep the PSEF in good repair and operating conditions.

The land development application shall include a construction transportation plan that shows ALL roadways that will be utilized to access the site, which will be forwarded to the County or Municipality for review.

C. **Other Requirements:**

1. DC voltage Solar Array Connections may be located above ground. AC Solar Facility connections should be located above ground where the applicant can demonstrate to the satisfaction of the Zoning Administrator that the overall environmental impacts would support above-ground location. Solar Project Connections may be located above ground. No portion of the PSEF 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 PSEF provided they comply with the prevailing sign regulations.

2. The owner and/or operator shall maintain a phone number and identify a person responsible for the public to contact with inquiries, emergencies, and complaints throughout the life of the PSEF and provide this number and name to the Township. This contact information shall also be placed on a sign attached to the entrance gate.

The PSEF owner and/or operator shall make reasonable efforts to respond to the public's inquiries and comments.

An Emergency Response Plan shall be included with the SALDO application, which shall be reviewed and approved by the Lycoming County Emergency Management Agency.

a. *Noise Management* – A Noise Management Plan that addresses noise produced during the construction and during the facility's operation, to be reviewed for accordance with local standards and avoidance of nuisance.

b. *Glare* – All PSEF shall be placed such that concentrated solar radiation or glare does not project onto nearby structures or roadways. Exterior surfaces shall have a non-reflective finish. The applicant has the burden of providing that any glare produced does not have significant adverse impact on neighboring or adjacent uses either through siting or through mitigation. The Applicant will provide a completed glare study ensuring that reflective glare is not directed towards, nor upon any adjacent properties as well as any adjacent street rights of way. The Glare Study shall include:

- (1) Angle of the PSEF panels, arrays, cells, etc., at the location
- (2) A diagram showing the maximum and minimum angles of reflective glare from the PSEF's panels, arrays, cells, etc. at the location of the relationship of that glare in adjacent properties, structures and rights of way.
- (3) A mitigation plan that limits or eliminates reflective glare on adjacent property structures and rights of way.

c. *Decommissioning* – The PSEF owner and/or operator 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 from the solar panels for a period of twelve (12) continuous months. The PSEF owner and/or operator shall then have 18 months in which to dismantle and remove the PSEF including all solar related equipment or appurtenances related thereto, including but not limited to buildings, cabling, electric components, roads, foundations, solar facility connections, and other associated facilities in accordance with the agreements with the landowners and good industry practice. To the extent possible, the materials shall be resold or salvaged. Materials that cannot be resold or salvaged shall be disposed of at a facility authorized to dispose of such materials by federal or state law. Any soil exposed during the removal shall be stabilized in accordance with the applicable erosion and sediment control standards and requirements. Any access drive paved aprons from public roads shall remain for future use unless directed otherwise by the landowner.

The PSEF site area shall be restored to its preexisting condition; suitable for its prior use. The landowner may authorize in writing that any buffer landscaping or access roads installed to accommodate the PSEF will remain.

Any necessary permits, such as Erosion and Sedimentation and NPDES permits shall be obtained prior to the decommissioning activities.

The developer shall at the time of zoning application, provide the County and Township with an estimate of the cost of performing the decommissioning activities required herein. The solar project Owner shall provide financial security of 110% of the estimated cost of decommissioning, which will be reviewed by the Township's consulting engineer. The estimate may include an estimated salvage and resale value, discounted by a factor of 10%. The decommissioning cost estimate formula shall be:

$$\begin{aligned} &\text{Gross Cost of Decommissioning Activities} \\ &\quad - \text{90\% credit of salvage and resale value} \\ &= \text{the Decommissioning Cost Estimate} \end{aligned}$$

On every 5th anniversary of the date providing the decommissioning financial security, the PSEF owner shall provide an updated decommission cost estimate, utilizing the formula set forth above with adjustments for inflation and cost and value changes. If the decommissioning security amount decreased by greater than 10%, the Township shall release from security any amounts held in excess of 110% of the updated decommission cost estimate. The decommissioning security may be in the form of cash deposit, surety bond, irremovable letter of credit, cashier's check, or escrow account from a federal or Commonwealth chartered lending institution in the amount of 110% of the total proposed decommission cost estimate and in a form satisfactory to the Township Zoning administrator and Solicitor.

Prior to the final approval of any SALDO plans for the PSEF, the PSEF developer shall enter into a Decommissioning Agreement with the Township outlining the responsibility of the parties under this Agreement as to the decommissioning of the PSEF.

3. Ground-Mounted Principal Solar Energy Systems (PSES) – The PSEF Development Area is equal to the total acres of land subject to the lease by the PSEF Developer. Where the area of land subject to the lease is greater than 75% of the parcel, the entire parcel will be considered to be the PSEF Development Area.

4. Solar Array Locations – The PSEF Development Area may be located only on 50% of the Class I, II, and III agriculture soils within the PSEF Development Area unless the area will be devoted to Agrivoltaic activities, in which case 75% of the Class, I, II and III soils may be included in the PSEF Development Area. For each parcel on which the PSEF or a component of a PSEF is proposed, a map shall be provided by the applicant detailing the PSEF Development Area, the Constrained Area, the Class I, II, and III agricultural soils, and the portion of the PSEF Development Area that may be devoted to Solar Arrays. Solar Arrays shall only be placed within that portion of any lot that lies within the portion of the SF Development Solar Arrays shall not be located in:

1. Floodways, as identified in the FEMA FIRM mapping.
2. Within fifty (50) feet of the top of bank of any stream, river, drainage corridor, FEMA delineated floodway and/or delineated wetland unless an encroachment permit is obtained through the PA DEP.
3. Slopes in excess of 15%.
4. Within the Resource Protection (RP) district, wooded areas, primarily devoted to mature trees. Mature tree inventory to be determined by a PA Certified Forester.
5. Legal easements or road rights of way.
6. Ground-mounted PSEFs shall not be placed within any stormwater conveyance system.

5. Setbacks - The fence shall be considered a principal structure for purposes of setbacks. Minimum setbacks shall be in accordance with Zoning District requirements. Where PSEF is adjacent to the residential building, a minimum setback of fifty (50) feet from the property line shall be required. No lot line setback will be required where there is a grouping of two or more PSEFs which are held by a common owner or leased to a common lessor and which are part of a single solar energy production development project, where each landowner has provided a written waiver of the lot line setback. A minimum of fifty (50) foot buffer shall be maintained along either side of any regulated stream or regulatory set back.

The application shall include with the project submission, details of mitigation measures to be implemented to preserve wildlife corridors including between PSEFs of a Solar Energy Project.

6. Height – All ground-mounted solar panels shall comply with a maximum fifteen (15) foot height requirements.

All other PSEF components should comply with the underlying district maximum height requirement. PSEF components may be in excess of the maximum height requirements where the applicant can demonstrate necessity and benefit. There are no maximum height restrictions for structures that support Solar Facility connections and Solar Project connections.

7. Stormwater Management – Stormwater runoff from a PSEF shall be managed in accordance with the Lycoming County or pertinent municipal stormwater management ordinance.

Where Solar Panels are mounted above the ground surface allowing for vegetation below the panel, the horizontal area of the panel may be considered a Disconnected Impervious Area (DIA), and therefore will have no increase from the predevelopment runoff coefficient. The horizontal area of the panel can only be considered a DIA if the following conditions apply.

1. Where natural vegetative cover is preserved and/or restored utilizing low impact construction techniques from the Pennsylvania Department of Environmental Protection Stormwater Best Practices Manual, including, but not limited to the following: minimizing the total disturbed area, minimizing soil compaction in disturbed areas, and revegetating and reforesting disturbed areas using native species.
2. Where the vegetative cover has a minimum uniform 70% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation.

3. For panels located on slopes of 0 to 15%, a minimum of 4 inches height of vegetative cover shall be maintained.

Vegetative areas shall not be subject to chemical fertilization or herbicide/pesticide application, except for those applications necessary to establish the vegetative cover or to prevent invasive species and in accordance with an approved Erosion and Sedimentation Plan.

The horizontal area of any Solar Panel or Solar Array that cannot meet all the conditions to be considered DIA shall be treated as impervious area. These areas shall be included in the pre-development to post-development runoff analysis as impervious area to determine the need for Post Construction Stormwater Management Practices. Use of gravel would not allow the horizontal area of the Solar Panel or Solar Array to be considered DIA. All impervious areas associated with the PSEF such as roadways and support buildings cannot be considered a DIA and shall follow normal protocols when performing the PSCM stormwater analysis.

8. Buffering – Ground-mounted PSEF shall be screened and buffered in accordance with the following standards:

1. Vegetative buffering, to the extent practical, shall be installed around the entire perimeter of the PSEF installation except where the Township determines that the retention of existing trees within the vegetative buffering area may constitute the required vegetative buffer or where Township determines that the Solar Panels cannot be viewed from a public roadway or residential building.
2. The vegetative buffering shall be installed along the exterior side of the fencing.
3. Zoning Ordinance Section 504 (Buffer yards/landscaping) applies.

9. Security – All ground-mounted PSEFs shall be completely enclosed by a minimum eight (8) foot high fence with a self-locking gate as deemed appropriate by the Zoning Administrator. The fence shall be kept free of all vegetation. A clearly visible warning sign shall be placed at the base of all pad mounted transforms and substations and on the fence surrounding the PSEF informing individuals of potential voltage hazards.

10. Access – At a minimum, a fourteen (14) foot wide stabilized access road must be provided from a state or municipal roadway to the PSEF site that is maintained year-round in a dust free condition. The PSEF developer shall obtain a permit from the appropriate jurisdiction for the construction of the access road. At a minimum a twenty (20) foot wide cartway shall be provided on the inside perimeter fencing between the fence and Solar Array. Spacing between Solar Array rows shall allow access for maintenance vehicles and emergency vehicles. Access to each PSEF shall comply with the municipal access requirements in the SALDO.

11. Lighting - See Exterior Lighting Standards of this Ordinance

- a. Roof and Wall Mounted PSEF: For roof and wall mounted systems, the applicant shall provide evidence that the plans comply with the Uniform Construction Code including that the roof or wall is capable of holding the load imposed on the structure. The total height of a building with a roof and/or wall mounted system shall not exceed by more than three (3) feet above the maximum building height specified for principal or accessory buildings within the applicable zoning district. Roof and wall mounted Accessory Solar Energy Systems are permitted in any zoning district where the building upon which they will be mounted is a permitted use.

7. **Repealer:** All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

8. This Ordinance takes effect in thirty (30) days.

Enacted this _____ day of _____, 2023.

Attest:

**BRADY TOWNSHIP
BOARD OF SUPERVISORS**

Secretary

Chair

