

ORDINANCE NO. _____

AN ORDINANCE OF SMITHFIELD TOWNSHIP, COUNTY OF MONROE,
COMMONWEALTH OF PENNSYLVANIA, AMENDING THE ZONING ORDINANCE OF
SMITHFIELD TOWNSHIP TO SET FORTH REQUIREMENTS FOR SOLAR ENERGY
SYSTEMS.

WHEREAS, the Pennsylvania Municipalities Planning Code, act of July 31, 1968, as amended, 53 P.S. §§ I0101 et seq., enables a municipality through its zoning ordinance to regulate the use of property and to promote the conservation of energy through access to and use of renewable energy resources; and

WHEREAS, Smithfield Township seeks to promote the general health, safety and welfare of the community by adopting and implementing an amendment to the Zoning Ordinance providing for access to and use of solar energy systems; and

WHEREAS, the purpose of this Ordinance is to set forth requirements for solar energy systems and conditional use requirements.

NOW THEREFORE BE IT ENACTED AND ORDAINED by the Board of Supervisors of Smithfield Township, Pennsylvania, and it is enacted and ordained as follows:

SECTION 1: Article 10, Section 1002 of the Smithfield Township, entitled "Other Words" shall be amended by adding the following definitions to those listed in Section 1002 thereof, to be inserted in alphabetical order:

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 power 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 for use on-site by the generator.

AGRIVOLTAICS: the co-development of the same area of land for both solar photovoltaic power and Normal Farming Operations as defined by P.L. 454, No. 133 (1982) the Protection of Agricultural Operations from Nuisance Suits and Ordinances Act, or any successor laws.

SUPERVISORS/BOARD OF SUPERVISORS: The Elected Supervisors of Smithfield Township.

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

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

SOLAR ENERGY FACILITY: An area of land used for a 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 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.

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 a Solar Energy Facility or Solar Energy Project. (May be abbreviated as SEF Developer, SEP Developer, or SEP Owner)

SOLAR FACILITY CONNECTION: The high-voltage electric conveyance lines which connect a Solar Energy Facility to 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 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.

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 foundations or other structures used for or intended to be used for collection of solar energy.

SECTION 2: Article 3 Section 306 of the Smithfield Township Zoning Ordinance, entitled "Industrial District; Uses & Structures; shall be amended by adding Conditional Use Uses & Structure 1. Solar Energy Facilities" as a conditional use in the Industrial District. (See 513) shall be placed at the end of "1. Solar Energy Facilities".

Article 3 Section 308 of the Smithfield Township Zoning Ordinance, entitled "Agriculture District; Uses & Structures; Special Exception Uses & Structure (Zoning Hearing Board)" shall be amended by adding Conditional Use Uses & Structure 1. Solar Energy Facilities" as a conditional use in the Agricultural District. (See 439) shall be placed at the end of "1. Solar Energy Facilities".

****This entire section is a placeholder and will be updated once it is determined where this use is allowed.**

SECTION 3: Part 5 of the Smithfield Township Zoning Ordinance, entitled "Supplementary Regulations" shall be amended by adding a new Section numbered 513, to be entitled "Solar Energy Systems" with the contents thereof to be as follows:

1. ACCESSORY SOLAR ENERGY SYSTEMS (ASES)

A. Criteria Applicable to all Accessory Solar Energy Systems:

- (1) ASES shall be permitted as a use by right in all zoning districts.
- (2) The ASES layout, design, installation, and ongoing 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 and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), or other similar certifying organizations, and shall comply with the PA Uniform Construction Code, and with all other applicable fire and life safety requirements.

Upon completion of installation, the ASES shall be maintained in good working order in accordance with standards of the codes under which the ASES was constructed. Failure of the property owner to maintain the ASES in good working order is grounds for appropriate enforcement actions by Smithfield Township in accordance with applicable ordinances.

- (3) All on-site utility, connection lines, and plumbing shall be placed underground.
- (4) Glare

- (a) All ASES 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.
- (b) The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation.

(5) Decommissioning

- (a) Each ASES and all solar related equipment shall be removed within twelve (12) months of the date when the use has been discontinued or abandoned by system owner and/or operator, or upon termination of the useful life of same.
 - (b) The ASES shall be presumed to be discontinued or abandoned if no electricity is generated by such solar collector for a period of twelve (12) continuous months.
 - (c) The ASES owner shall, at the request of the County provide information concerning the amount of energy generated by the ASES in the last 12 months.
- (6) Zoning/building permit applications shall document compliance with this Section, other applicable sections of the Ordinance and shall be in accordance with Article 1202 of the Ordinance.

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) The total height of a building with an ASES shall not exceed by more than 3 feet above the maximum building height specified for principal or accessory buildings within the applicable zoning district.
- (3) Wall mounted ASES shall comply with the setbacks for principal and accessory structures in the underlying zoning district.
- (4) Solar panels shall not extend beyond any portion of the roof edge.
- (5) 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.

C. Ground Mounted Accessory Solar Energy Systems:

(1) Setbacks

- (a) The minimum yard setbacks from side and rear property lines shall be equivalent to the accessory structure setback in the applicable zoning district.
- (b) A ground mounted ASES shall not be located in the required front yard setback, unless the principal structure is set back more than 250

ft. from the Front Lot Line, in which case, the ASES shall be set back not less than 200 ft. from the front lot line.

(2) Height. Ground mounted ASES shall not exceed 15 feet in height above the ground elevation surrounding the systems.

(3) Stormwater Management

(a) Stormwater runoff from an ASES shall be managed in accordance with the requirements of the Smithfield Township Stormwater Management Ordinance.

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

- i. Where natural vegetative cover is preserved and/or restored utilizing low impact construction techniques from the Pennsylvania Department of Environmental Protection Stormwater Best Management Practices Manual, including, but not limited to the following: minimizing the total disturbed area, minimizing soil compaction in disturbed areas, and revegetating and re-foresting disturbed areas using native species.
- ii. Where the vegetative cover has a minimum uniform 70% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation.
 - a. For panels located on slopes of 0 to 15% a minimum 4" height of vegetative cover shall be maintained.
 - b. Panels located on slopes greater than 15% cannot be considered DIA.
 - c. Vegetated areas shall not be subject to chemical fertilization or herbicide/pesticides application, except for those applications necessary to establish the vegetative cover or to prevent invasive species and in accordance with an approved Erosion and Sediment Control Plan.
 - d. Agrivoltaics, the co-development of the same area of land for both solar photovoltaic power and conventional agriculture, may be used provided that:
 1. Only shade tolerant crops may be used,
 2. Crops must be no tilled in,

3. A written erosion and sediment control plan must be developed for agricultural plowing or tilling activities or a portion of the overall farm conservation plan must identify BMPs used,
 4. Any cutting or mowing of the agricultural crop is limited to a height of no less than 4 inches,
 5. Application of chemical fertilization or herbicides/ pesticides is limited to the agronomic needs to the crop(s).
- iii. Where the Solar Panels within a Solar Array are arranged in a fashion that:
- a. Allows the passage of runoff between each Solar Panel, thereby minimizing the creation of concentrated runoff.
 - b. Allows for the growth of vegetation beneath the panel and between the Solar Arrays.
- (c) 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 ("PCSM") Best Management Practices.
- i. Use of gravel is permissible under a panel or in the receiving downhill flow path; however, the use of gravel would not allow the horizontal area of the Solar Panel or Solar Array to be considered as a DIA.
 - ii. All impervious areas associated with the ASES such as roadways and support buildings cannot be considered a DIA and shall follow normal protocols when performing the PCSM stormwater analysis.
- (4) Buffering.
- (a) Ground mounted ASES shall be buffered from any adjacent residential uses by a buffer yard of at least 30 feet. Such buffer yard shall be part of the commercial installation and shall be parallel and adjacent to the boundary.
 - (b) Ground mounted ASES shall be buffered from any adjacent agricultural uses by a buffer yard of at least 15 feet. Such buffer yard shall be part of the commercial installation and shall be parallel and adjacent to the boundary.

- (c) Ground mounted ASES shall be buffered from any other adjacent uses by a buffer yard of at least 20 feet. Such buffer yard shall be part of the commercial installation and shall be parallel and adjacent to the boundary.
- (5) Appropriate safety/warning signage concerning voltage shall be placed at ground mounted electrical devices, equipment, and structures. All electrical control devices associated with the ASES shall be locked to prevent unauthorized access or entry.
- (6) 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, unless the Applicant can demonstrate, to the satisfaction of the County, that the ASES will not impede stormwater management, or in any other manner alter or impede storm water runoff from collecting in a constructed storm water conveyance system.

2. SOLAR ENERGY FACILITY (SEF)

A. Criteria Applicable to All SEFs:

- (1) The SEF layout, design and installation 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 at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with 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.
- (2) The application shall include a construction transportation plan that shows all roadways that will be utilized to access the site, which shall be forwarded to the Municipality for review.
- (3) DC voltage Solar Array Connections may be located above ground.
- (4) AC Solar Facility Connections should be located underground where feasible. AC Solar Facility Connections may be located above ground where the Applicant can demonstrate to the satisfaction of the Planning Commission that the overall environmental impacts would support above ground location.
- (5) Solar Project Connections may be located above ground.
- (6) No portion of the SEF 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 SEF provided they comply with the prevailing sign regulations.
- (7) Noise Management

- (a) A Noise Management Plan that addresses noise produced during construction and during the facilities operation, to be approved by the Planning Commission, shall be included with the SALDO application.
 - (b) The Plan at a minimum shall separately address noise during construction and facility operations and include mitigation and assessment of the noise that will emanate at the perimeter fence and the contact information for the individual who is responsible for implementation and compliance both during construction and operations.
 - (c) The volume of sound inherently and recurrently generated shall be controlled so as not to cause a nuisance to adjacent uses.
 - (d) During operation of the SEF, audible sound shall not exceed a maximum of 60 dBA during daytime hours and 55 dBA during nighttime hours as measured at the exterior of any occupied building on a non-participating landowner's property.
- (8) Glare
- (a) All SEF 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.
 - (b) The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation.
- (9) The SEF owner and/or operator shall maintain a phone number and identify a person responsible for the public to contact with inquiries and complaints throughout the life of the project and provide this number and name to the County. The SEF owner and/or operator shall make reasonable efforts to respond to the public's inquiries and complaints.
- (10) Decommissioning
- (a) The SEF owner is required to notify the County immediately upon cessation or abandonment of the operation. The SEF shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of twelve (12) continuous months.
 - (b) The SEF owner shall then have eighteen (18) months in which to dismantle and remove the SEF including all solar related equipment or appurtenances related thereto, including but not limited to buildings, cabling, electrical components, roads, foundations, solar facility connections and other associated facilities in accordance with agreements with landowners and good industry practice.
 - (c) To the extent possible the materials shall be re-sold or salvaged. Materials that cannot be re-sold or salvaged shall be disposed of at facility authorized to dispose of such materials by federal or state law.

- (d) Any soil exposed during the removal shall be stabilized in accordance with applicable erosion and sediment control standards.
- (e) Any access drive paved aprons from public roads shall remain for future use unless directed otherwise by the land owner.
- (f) The SEF site area shall be restored to its pre-existing condition, suitable for its prior use, except the landowner may authorize, in writing, any buffer landscaping or access roads installed to accommodate the SEF to remain.
- (g) Any necessary permits, such as Erosion and Sedimentation and NPDES permits, shall be obtained prior to decommissioning activities.
- (h) At the time of issuance of SALDO approval for the construction of the SEF, the owner shall provide financial security in the form and amount acceptable to the Board of Supervisors and in favor of the Board of Supervisors, to secure its obligations under this Section.
 - i. The SEF Developer shall, at the time of the SALDO application, provide Smithfield Township with an estimate of the cost of performing the decommissioning activities required herein. The Solar Energy Project Owner shall provide financial security of 110% of the estimated cost of decommissioning. The estimate may include an estimated salvage and resale value, discounted by a factor of 10%. The decommissioning cost estimate formula shall be: Gross Cost of Decommissioning Activities minus 90% credit of Salvage and resale value equals the decommissioning cost estimate.
 - ii. On every 5th anniversary of the date of providing the decommissioning financial security, the SEF 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 increases, the SEF Owner shall remit the increased financial security to Smithfield Township within 30 days of the approval of the updated decommissioning security estimate by Smithfield Township. If the decommissioning security amount decreases by greater than 10%, Smithfield Township shall release from security any amounts held in excess of 110% of the updated decommission cost estimate.
 - iii. Decommissioning security estimates shall be subject to review and approval by the Board of Supervisors and the SEF Developer/Owner shall be responsible for administrative, legal, and engineering costs incurred by Smithfield Township for such review.
 - iv. The decommissioning security may be in the form of cash deposit, surety bond, irrevocable letter of credit, cashier's

check, or escrow account from a federal or Commonwealth chartered lending institutions in the amount of 110% of the total proposed decommission cost estimate and in a form satisfactory to the Board of Supervisors and the Township Solicitor.

- v. Prior to final approval of any SALDO plans for a SEF, the SEF Developer shall enter into a Decommissioning Agreement with Smithfield Township outlining the responsibility of the parties under this Agreement as to the Decommissioning of the SEF.

(11) An Emergency Response Plan shall be included with the SALDO application, which shall be reviewed and approved by Smithfield Township Emergency Management Agency.

(12) Permit Requirements

- (a) SEF shall comply with the Township's subdivision and land development requirements through submission of a land development plan.
- (b) The installation of SEF shall be in compliance with all applicable permit requirements, codes, and regulations, including highway occupancy, driveway permits and road bonding requirements.
- (c) The SEF owner and/or operator shall repair, maintain and replace the SEF and related solar equipment during the term of the permit in a manner consistent with industry standards as needed to keep the SEF in good repair and operating condition.

B. Ground Mounted Principal Solar Energy Systems:

(1) SEF Development Area is equal to the total acres of land subject to lease by the SEF 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 SEF Development Area.

(2) Solar Array Locations:

- (a) Solar Arrays may be located only on 75% of the total Class I and II agricultural soils within the SEF Development Area, unless the area will be devoted to Agrivoltaic activities, in which case 100% of the Class I and II soils may be included in the SEF Development Area.
- (b) For each parcel on which an SEF or a component of an SEF is proposed, a map shall be provided by the applicant detailing the SEF Development Area, the Constrained Area, the Class I and II agricultural soils, and the Portion of the SEF Development that may be devoted to Solar Arrays.
- (c) Solar Arrays shall only be placed within that portion of any lot that lies within the Portion of the SEF Development that may be devoted to Solar Arrays.

- (d) Solar Arrays shall not be located in:
 - i. Floodways, as identified in the FEMA FIRM mapping.
 - ii. Regulated natural and man-made drainage corridors, extending twenty-five (25) feet from the centerline of any such drainage feature unless the Board of Supervisors at SALDO approval determines a lesser setback would create less impacts to the overall project.
 - iii. Wetlands: Development may occur on any wetland area of less than one (1) acre if the Board of Supervisors at SALDO approval determines the development of that area would create less impacts to the overall project. Any such development in a wetland must receive the required approval of the Pennsylvania Department of Environmental Protection and/or the United States Army Corps of Engineers.
 - iv. Wetlands Buffer extending twenty-five (25) feet from any wetland unless the Board of Supervisors at SALDO approval determines the development of that area would create less impacts to the overall project.
 - v. Slopes in excess of fifteen percent (15%) unless the Board of Supervisors at SALDO approval determines location in an area in excess of fifteen percent (15%) would create less impacts to the overall project.
 - vi. Wooded Areas primarily devoted to mature trees in excess of two (2) acres that would require removal of greater than 20% of mature trees, unless the Board of Supervisors at SALDO approval determines greater tree removal would create less impacts to the overall projects. For the purpose of this clause, brushes and shrubs are not considered trees.
 - vii. Road Rights-of-Way.
 - viii. Setback areas, as defined in the underlying zoning district.

(3) Setbacks

- (a) The fence as required by Paragraph 9 below shall be considered a principal structure for purposes of setbacks. Minimum setbacks shall be in accordance with the zoning district requirements. Where an SEF is adjacent to a residential building, a minimum setback of fifty (50) feet from any occupied building shall be required.
- (b) No lot line setback will be required where there is a grouping of two or more Solar Energy Facilities 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.

- (c) The application shall include with the project submission details of mitigation measures to be implemented to preserve wildlife corridors including between Solar Energy Facilities of a Solar Energy Project.
- (d) A minimum of a twenty-five (25) buffer shall be maintained along either side of any regulated stream or regulatory wetland.

(4) Height

- (a) All ground mounted solar panels shall comply with a maximum fifteen (15) foot height requirement.
- (b) All other SEF components shall comply with the underlying district maximum height requirement.
- (c) SEF components may be in excess of the maximum height requirement where the Applicant can demonstrate to the satisfaction of the Board of Supervisors **that the necessity and benefit.**
- (d) There is no maximum height restrictions for Structures that support Solar Facility Connections and Solar Project Connections.

(5) Stormwater Management

- (a) Stormwater runoff from an SEF shall be managed in accordance with the requirements of the Smithfield Township Stormwater Management Ordinance.
- (b) Where Solar Panels are mounted above the ground surface allowing for vegetation below the panels, the horizontal area of the panel may be considered a Disconnected Impervious Area ("DIA"), and therefore will have no increase from the pre-development to post-development runoff coefficient. The horizontal area of the panel can only be considered a DIA if the following conditions apply:
 - i. Where natural vegetative cover is preserved and/or restored utilizing low impact construction techniques from the Pennsylvania Department of Environmental Protection Stormwater Best Management Practices Manual, including, but not limited to the following: minimizing the total disturbed area, minimizing soil compaction in disturbed areas, and revegetating and re-foresting disturbed areas using native species.
 - ii. Where the vegetative cover has a minimum uniform 70% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation.
 - a. For panels located on slopes of 0 to 15% a minimum 4" height of vegetative cover shall be maintained.
 - b. Panels located on slopes greater than 15% cannot be considered DIA.

- c. Vegetated areas shall not be subject to chemical fertilization or herbicide/pesticides application, except for those applications necessary to establish the vegetative cover or to prevent invasive species and in accordance with an approved Erosion and Sediment Control Plan.
 - d. Agrivoltaics may be used provided that:
 - 1. Only shade tolerant crops may be used,
 - 2. Crops must be no tilled in,
 - 3. A written erosion and sediment control plan must be developed for agricultural plowing or tilling activities or a portion of the overall farm conservation plan must identify BMPs used,
 - 4. Any grazing, cutting or mowing of the agricultural crop is limited to a height of no less than 4 inches,
 - 5. Application of chemical fertilization or herbicides/ pesticides is limited to the agronomic needs to the crop(s).
 - 6. If the property will be used for the grazing of livestock, a manure management plan must be developed.
 - iii. Where the Solar Panels within a Solar Array are arranged in a fashion that:
 - a. Allows the passage of runoff between each Solar Panel, thereby minimizing the creation of concentrated runoff.
 - b. Allows for the growth of vegetation beneath the panel and between the Solar Arrays.
- (c) 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 ("PCSM") Best Management Practices.
- i. Use of gravel is permissible under a panel or in the receiving downhill flow path; however, the use of gravel would not allow the horizontal area of the Solar Panel or Solar Array to be considered as a DIA.
 - ii. All impervious areas associated with the ASES such as roadways and support buildings cannot be considered a DIA

and shall follow normal protocols when performing the PCSM stormwater analysis.

- (6) Buffering. Ground mounted SEF shall be screened and buffered in accordance with the following standards.
- (a) Vegetative buffering, to the extent practical, shall be installed around the entire perimeter of the SEF installation, except where the Commissioners determines that the retention of existing trees within the vegetative buffering area may constitute the required vegetative buffer or where the Board of Supervisors determines that the solar panels cannot be viewed from a public roadway or residential building. (this is addressed in (g) – unsure if need to keep)
 - (b) The vegetative buffering shall be installed along the exterior side of the fencing. All required vegetative buffering shall be located within fifty (50) feet of the required fencing.
 - (c) Vegetative buffering should be designed to emulate the mix of native species and appearance of existing tree lines, hedge rows, and wooded areas already in existence within the landscape where the SEF is proposed. The applicant shall assess the species mix and characteristics found in existing tree lines, hedge rows, and wooded areas surrounding the SEF and document that the vegetative buffering is designed to emulate these characteristics. Arborvitae may be used as vegetative buffering.
 - (d) No less than 20% of vegetative buffering plantings shall be pollinator friendly species.
 - (e) Vegetative buffering shall be selected to provide year-round buffering and shall be of sufficient height, density, and maturity to screen the facility from visibility, as set forth herein within thirty-six months of the installation of the SEF.
 - (f) A combination of Natural topography and vegetation can serve as a buffer, provided that the SEP will not be visible from public roads, public parks or existing residences on surrounding properties. Earthen berms may not be created to serve as a buffer.
 - (g) Visibility of SEP shall be determined as visible in a photograph taken at a point with a digital camera with an APS-C Sensor and a 35 mm focal length lens. A SEF shall be considered to not be visible provided that no more than 5% of the SEF shall be visible in accordance with the measure of visibility set forth above.
 - (h) The buffering requirements of this section shall supersede the provisions of the Smithfield Township Zoning Ordinance and Subdivision and Land Development Ordinance as they may pertain to SEFs.

(7) Ground-mounted SEF shall not be placed within any legal easement or right-of-way location or be placed within any stormwater conveyance system.

(8) Security

- (a) All ground-mounted SEFs shall be completely enclosed by a minimum eight (8) foot high fence and a self-locking gate as deemed appropriate by the Board of Supervisors at Land Development Plan approval.
- (b) A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence on the surrounding the SEF informing individuals of potential voltage hazards.

(9) Access

- (a) At a minimum, a fourteen (14) wide stabilized access road must be provided from a state or township roadway to the SEF site that is maintained in a dust free condition. The SEF developer shall obtain a permit from the appropriate jurisdiction for the construction of the access road.
 - (b) At a minimum, a twenty (20) foot wide cartway shall be provided on the inside of the perimeter fencing between the fence and Solar Array.
 - (c) Spacing between Solar Array rows shall allow access for maintenance vehicles and emergency vehicles.
 - (d) Access to the SEF shall comply with the municipal access requirements in the Subdivision and Land Development Ordinance.
- (10) The ground mounted SEF shall not be artificially lighted except to the extent required for safety or applicable federal, state, or local authority.

C. Roof and Wall Mounted Principal Solar Energy Facility:

- (1) 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.
- (2) The total height of a building with a roof and wall mounted system shall not exceed by more than 3 feet above the maximum building height specified for principal or accessory buildings within the applicable zoning district.
- (3) Roof and Wall Mounted Principal Solar Energy Facilities are permitted in any Zoning District where the building upon which they will be mounted is a permitted use.

SECTION 5. Severability. In the event any provision, section, sentence, clause, or part of this Ordinance shall be held invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Ordinance, it being the intent of this Township that such remainder shall be and shall remain in full force and effect.

SECTION 6. Repealer. All other ordinances or parts of ordinances inconsistent herewith shall be and the same expressly are repealed.

SECTION 7. Effective Date. This Ordinance shall become effective five days after the date of enactment as provided by law.

ADOPTED this _____ day of _____, 2023 by the Board of Supervisors of the Township of Smithfield, Monroe County, Pennsylvania.

**SMITHFIELD TOWNSHIP
BOARD OF SUPERVISORS**

Jacob A. Pride, Chair

Robert Lovenheim, Vice Chair

Brian E. Barrett, Supervisor

Attest: _____
Lois J. Turr
Administrative Secretary