

ORDINANCE NO. 2022-02

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF ORANGE TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA, AMENDING THE ZONING ORDINANCE OF ORANGE 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, Orange 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;

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

SECTION 1: Article III, Section 303 of the Orange Township, entitled "Definitions" shall be amended by adding the following definitions to those listed in Section 303 thereof, to be inserted in alphabetical order:

ACCESSORY SOLAR ENERGY SYSTEM (ASES): 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. 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 on the parcel which the energy is to be used and, or adjacent parcels under the control of the owner of the parcel which the energy is to be used, 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), or any successor laws.

FINANCIAL SECURITY: Security in the form of a surety bond guaranteed by a company listed in U.S. Treasury Circular 570, or a cash account or an irrevocable letter of credit on deposit with, or issued by a Federal or Commonwealth chartered lending institution which is insured by the Federal Deposit Insurance Corporation (FDIC) in the amount of 110% of the total proposed decommission cost estimate and, in a form, satisfactory to the Supervisors and the Township Solicitor.

PLANNING COMMISSION: The Planning Commission of Orange Township if existing or otherwise the Columbia County Planning Commission.

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 (SEF): An area of land used for a solar collection system principally to capture solar energy, convert it to electrical energy power and supply electrical 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. Off-site transmission lines will not be considered part of the SEF for the purposes of zoning approval, however must be included in Conditional Use Application.

SOLAR ENERGY PROJECT: A grouping of two or more Solar Energy Facilities which are held by owner or leased to a common lessee 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. (SEF Developer)

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 IV Section 401.1 of the Orange Township Zoning Ordinance, entitled Designation

of Districts, shall be amended by adding “Solar Development Overlay District” as a Zoning District.

SECTION 3: Article IV Section 401 of the Orange Township Zoning Ordinance, entitled Designation of Districts, shall be amended by adding:

401.5 Solar Development Overlay District

The Solar Development Overlay District is hereby created to be coterminous with the tax parcels which are located within one-third mile (1,760 feet) of the existing 69kv electric transmission line that runs generally north to south through the Township. In cases where only a portion of a tax parcel is located within one-third mile of the said existing 69kv electric transmission line, the entirety of the tax parcel, as it existed at the time of the adoption of this section, including areas which lies more than one-third mile from the existing 69kv electric transmission line, will be considered to be located within the Solar Development Overlay District.

SECTION 4: Article IV Section 402 of the Orange Township Zoning Ordinance, entitled Official Zoning Map shall be amended to add the boundaries of the Solar Development Overlay District to be offset one-third mile (1,760 feet) to either side of the existing 69kv electric transmission line that runs generally north to south through the Township as shown on the plan titled “Solar Development Overlay District Amendments to the Orange Township "Official Map"” attached hereto and intended to be incorporated herein.

SECTION 5: Article IV Section 404.4 of the Orange Township Zoning Ordinance, entitled Table of Uses Permitted by District, shall be amended by adding “Solar Development Overlay District – Schedule of Uses”. Said Table of Uses shall include the following:

INTENT: To provide adequate area to accommodate the development of Solar Energy Facilities within the Township based upon currently available infrastructure and to limit the impact of such development on adjacent uses.

Principal Permitted Uses: Uses designated as Principal Permitted Uses in the underlying district. A Principal Permitted Use may occur on the same parcel as a Solar Energy Facility.

Special Exception uses: None.

Conditional Uses: Solar Energy Facility, subject to the requirements of Section 860.2 and 1108.4 of the Ordinance.

Accessory Uses: Accessory uses customary to approved uses.

SECTION 6: Article IV Section 404.4 of the Orange Township Zoning Ordinance, entitled Table of Uses Permitted by District, shall be amended by adding “Accessory Solar Energy Facilities producing up to 25 kilowatt hours, subject to the requirements of Section 860.1” as an Accessory Use in all Districts.

SECTION 7: Article IV Section 404.4 of the Orange Township Zoning Ordinance, entitled Table of Uses Permitted by District, shall be amended by adding “Accessory Solar Energy Facilities producing

greater than 25 kilowatt hours, subject to the requirements of Section 860. 2 and 1108.4 of the Ordinance.” as a Conditional Use in all Districts.

SECTION 8: Article VII of the Orange Township Zoning Ordinance, entitled "Standard for Specific Uses" shall be amended by adding a new Section numbered 860, to be entitled "Solar Energy Systems" with the contents thereof to be as follows:

860 SOLAR ENERGY SYSTEMS

Solar Energy Systems include Solar Energy Facilities and Accessory Solar Energy Systems, and in addition to all other applicable requirements of this Zoning Ordinance, the provisions of this §860 shall apply.

860.1. ACCESSORY SOLAR ENERGY SYSTEMS (ASES)

A. Criteria Applicable to all Accessory Solar Energy Systems:

- (1) ASES producing up to 25 kilowatt hours shall be permitted as an accessory use by right in all zoning districts.
- (2) ASES producing greater than 25 kilowatt hours shall be permitted as a Conditional Use in all zoning districts. As part of any ASES Conditional Use approval, the Board of Supervisors may require compliance with any or all provisions of this §860.1, and, or any or all provisions of § 860.2.
- (3) 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 Orange Township in accordance with applicable ordinances.

(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 Township 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 1101 of the Ordinance.

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

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 be 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 districts.

(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 for a ground mounted ASES serving a residential property shall be equivalent to the accessory structure setback in the applicable zoning district.

(b) The minimum yard setbacks from side and rear property lines for a ground mounted ASES serving a commercial property shall be equivalent to the principal structure setback in the applicable zoning district.

(c) A ground mounted ASES shall not be located in the required front yard, 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.

(d) Where there is no principal structure on the property, a ground mounted ASES shall comply with the front yard setback requirements of a Solar Energy Facility.

(2) Height. Ground mounted ASES shall not exceed 12 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 25 Pa. Code § 102, and specifically the most recent guidance published by the Pennsylvania Department of Environmental Protection (DEP) related to Chapter 102 Permitting for Solar Panel Farms. Where there is a discrepancy between this guidance and the provisions of this section of the Zoning Ordinance, the DEP guidance shall be followed.

(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 re-vegetating 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:

i. Only shade tolerant crops may be used,

ii Crops must be no-tilled in,

iii 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,

iv. Any cutting or mowing of the agricultural crop is limited to a height of no less than 4 inches,

v. Application of chemical fertilization or herbicides/pesticides is limited to the agronomic needs of 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 Township, 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.

860.2. 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 Supervisors 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 Supervisors, shall be included with the Conditional Use application.

(b) The Plan at a minimum shall separately address noise during construction and facility operations and include, mitigation, an assessment of the noise that will emulate 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 45 dBA during nighttime hours as measured at the property line 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 Township. 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 Township 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 six (6) continuous months.

(b) The SEF owner shall then have twelve (12) 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) The SEF, the owner shall provide financial security in the form and amount acceptable to the Township, in favor of the Township, to secure its obligations under this Subsection (h).

i. The SEF Developer shall, at the time of submitting the Subdivision and Land Development (SALDO) application, provide the Township with an estimate of the cost of performing the decommissioning activities required herein.

ii. The Township shall obtain an independent review of the estimate of the

cost of performing the decommissioning activities. The Township shall establish the cost of performing the decommissioning activities based upon this review.

iii. The SEF Developer/Owner shall be responsible for administrative, legal, and engineering costs incurred by the Township for such review.

iv. As a condition of Zoning approval, no later than at the time of review of the SALDO plans by the Township, the SEF Developer shall enter into a Decommissioning Agreement with the Township outlining the responsibility of the parties under this Ordinance as to the Decommissioning of the SEF.

v. The SEF Developer shall, upon receipt of SALDO approval, and not later than the start of any construction activities, provide the Township the decommissioning security.

vi. The decommissioning security may be in the form of a surety bond guaranteed by a company listed in U.S. Treasury Circular 570, or a cash account or an irrevocable letter of credit on deposit with, or issued by a Federal or Commonwealth chartered lending institution which is insured by the Federal Deposit Insurance Corporation (FDIC) in the amount of 110% of the total proposed decommission cost estimate and, in a form satisfactory to the Supervisors and the Township Solicitor.

vii. 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. The Township shall obtain an independent review of the estimate. The Township shall establish the cost of performing the decommissioning activities based upon this review.

viii. If the decommissioning security amount increases, the SEF Owner shall remit the increased financial security to the Township within 30 days of the approval of the updated decommissioning security estimate by the Township. If the decommissioning security amount decreases by greater than 10%, the Township shall release from security any amounts held in excess of 110% of the updated decommission cost estimate.

ix. The SEF Developer/Owner shall be responsible for administrative, legal, and engineering costs incurred by the Township for such review.

(i) Unenclosed storage of any material is not permitted as part of a SEF. Any enclosed storage that may be proposed in conjunction with a SEF must be permitted as separate use.

(11) Upon receipt of SALDO approval, and not later than the start of any construction activities, an Emergency Response Plan Reviewed by the Columbia County Emergency

Management Agency and approved by the Orange Township Board of Supervisors shall be completed.

(12) Permit Requirements

(a) The SEF shall comply with all applicable requirements of the Orange Township Zoning Ordinance during construction and operation. The SEF must obtain a Zoning Permit from the Township Zoning Officer prior to the start of any construction activities. This permit may be revoked by the Township if the SEF fails to comply with the requirements of the Zoning Ordinance.

(b) The SEF shall obtain SALDO approval from the agency having authority to administer the SALDO Ordinance regulating subdivisions and land development in the Township.

(c) The installation of SEF shall be in compliance with all applicable Federal, Commonwealth and local permit requirements, codes, and regulations, including highway occupancy, driveway permits and road bonding requirements.

(d) 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 a SEF, or a component of a 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 Supervisors at Conditional Use 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 1 acre if the Supervisors at Conditional Use 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 Supervisors at Conditional Use approval, determines a lesser setback would create less impacts to the overall project.
- v. Slopes in excess of fifteen percent (15%) unless the Supervisors at Conditional Use approval, determines location in an area in excess of 15% would create less impacts to the overall project.
- vi. Wooded Areas primarily devoted to mature trees in excess of 2 acres that would require removal of greater than 20% of mature trees, unless the Supervisors at Conditional Use approval, determines greater tree removal would create less impacts to the overall project. 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 District Requirements for a principal structure. Where the minimum setbacks in accordance with the District Requirements are less than fifty (50) feet a setback of fifty (50) feet 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 lessee and which are part of a single Solar Energy 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 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 twelve (12) foot height requirement.

(b) All other SEF components should 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 Supervisors at Conditional Use approval the necessity and benefit.

(d) There are no maximum height restrictions for Structures that support Solar Facility Connections and Solar Project Connections.

(5) Stormwater Management

(a) Stormwater runoff from an SES shall be managed in accordance with the requirements of 25 Pa. Code § 102, and specifically the most recent guidance published by the Pennsylvania Department of Environmental Protection (DEP) related to Chapter 102 Permitting for Solar Panel Farms. Where there is a discrepancy between this guidance and the provisions of this section of the Zoning Ordinance, the DEP guidance shall be followed.

(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 re-vegetating 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:
 - i. Only shade tolerant crops may be used,
 - ii Crops must be no-tilled in,
 - iii 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,
 - iv. Any grazing, cutting or mowing of the agricultural crop is limited to a height of no less than 4 inches,
 - v. Application of chemical fertilization or herbicides/pesticides is limited to the agronomic needs of the crop(s).
 - iv. 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) Ground mounted SEF shall be screened and buffered from adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of plant materials which provide a visual screen. A fence that provides visual screening and meets requirements of the ordinance may be used for driveways and access ways.

(a) Vegetative buffering, to the extent possible, shall be installed at the perimeter of the SEF installation, except where the Supervisors determine that the existing vegetation and trees constitutes the required vegetative buffer or where the Supervisors determine that the solar panels cannot be viewed from an occupied residential building.

(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. Earthen berms may not be created to serve as a buffer.

(g) A screening plan shall be required with the Conditional Use Application that

limits the visibility of the SEF from public roads, public parks or existing residences on surrounding properties.

(h) The buffering requirements of this section shall supersede the provisions of the Orange Township Zoning Ordinance and Columbia County Subdivision and Land Development Ordinance as they may pertain to SEFs.

(i) The owner of the SEF shall be required to maintain vegetative buffering throughout the life of the project. Dead and or diseased planting shall be removed and replace in accordance with this section.

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

(8) Security

(a) All ground-mounted SEFs shall be completely enclosed by a minimum eight (8) foot high fence with a self-locking gate as deemed appropriate by the Supervisors at Conditional Use 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 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 20' wide area shall be provided on the inside of the perimeter fencing between the fence and Solar Array to allow access around the inside perimeter of the fence.

(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 9. Repealer. All provisions of Orange Township Zoning Ordinance which are contrary to this Ordinance are expressly repealed.

SECTION 10. Savings Clause. In all other respects, the Orange Township Zoning Ordinance shall remain as previously enacted and ordained.

SECTION 11. Severability. The provisions of this Ordinance are declared to be severable, and if any section, subsection, sentence, clause or part thereof is, for any reason, held to be invalid to unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of any remaining sections, subsections, sentences, clauses or part of this ordinance.

SECTION 12. Effective Date. This Ordinance shall take effect in accordance with law.

ENACTED AND ORDAINED on this 4th day of August, 2022. This Ordinance shall become effective five days after adoption,

ATTEST:



Erika Burkhart, Secretary

**ORANGE TOWNSHIP
BOARD OF SUPERVISORS**



Calvin Fox, Chairman



John Long



Gene (Dan) Fetterman