

**TOWNSHIP OF JEFFERSON
ORDINANCE NO. _____**

**AN ORDINANCE OF THE TOWNSHIP OF JEFFERSON,
COUNTY OF WASHINGTON, COMMONWEALTH OF
PENNSYLVANIA, ESTABLISHING SPECIFIC REGULATIONS
FOR ACCESSORY SOLAR ENERGY SYSTEMS AND SOLAR
ENERGY FACILITIES IN THE TOWNSHIP, TO ADD ACCESSORY
SOLAR ENERGY SYSTEMS AS A PERMITTED USE IN ALL
ZONING DISTRICTS IN THE TOWNSHIP, AND TO ADD SOLAR
ENERGY FACILITIES AS A CONDITIONAL USE IN THE SOLAR
ENERGY FACILITY OVERLAY DISTRICT IN THE TOWNSHIP.**

WHEREAS, the Pennsylvania Municipalities Planning Code, as amended, 53 P.S. §§ 10101 *et seq.*, enables the Township of Jefferson, Washington County, Pennsylvania (“Township”), through its zoning ordinance, to regulate the use of property and the conservation of energy through access to and use of renewable energy resources; and

WHEREAS, according to the Pennsylvania Department of Environmental Protection and the Energy Industries Association, both residential and grid-scale solar energy projects are being installed at an increasing rate throughout the Commonwealth of Pennsylvania; and

WHEREAS, the Township seeks to promote the general health, safety and welfare of the residents of the Township by adopting and implementing this Ordinance regulating the development and use of Accessory Solar Energy Systems and Solar Energy Facilities in the Township; and

WHEREAS, in accordance with the Township’s Comprehensive Plan, the Board of Supervisors desires to maintain the rural, agricultural and residential nature of the Township while providing a mechanism for locating solar development to lands that are not prime farmland; and

WHEREAS, the Township’s Planning Commission reviewed the proposed Ordinance at its meeting on September 11, 2024, and voted to **recommend/not recommend** approval of the Solar Ordinance; and

WHEREAS, the Board of Supervisors held a duly advertised public hearing on the proposed Solar Ordinance, on [REDACTED] at [REDACTED] pm at **the Jefferson Township Municipal Building located at 670 Cedar Grove Road, Burgettstown, PA 15021**; and

WHEREAS, the Board of Supervisors has given careful consideration to all public comments and has determined that the adoption of this Solar Ordinance is in the best interests of the health, safety and welfare of the inhabitants of the Township and the general public.

NOW THEREFORE BE IT ORDAINED AND ENACTED by the Supervisors of The Township of Jefferson, Washington County, Commonwealth of Pennsylvania, as follows:

Section 1 - Definitions

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

ACCESSORY SOLAR ENERGY SYSTEM (ASES): An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power: (a) primarily; or (b) solely for on-site use, and produces less than 25 kWh of power. An accessory solar energy system consists of one (1) or more free-standing ground, wall, 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.

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.

APPLICANT: The individual or entity seeking approval for a solar energy system pursuant to this Ordinance. The Applicant must be the owner or the equitable owner of the property where the ASES or SEF is being put.

BUFFER: A landscaped area, or an area of preserved vegetation, intended to be used as a means of limiting the potentially adverse effects created by a use onto adjoining properties, streets, and uses.

BUFFER YARD: An area whose dimensions normally exceed the normal building setback or yard requirement used to protect low-density uses and zoning districts from adjacent higher intensity uses and districts. Buffer Yards are to be measured from the property boundary line.

CONDITIONAL USE: A use permitted in certain districts where the Board of Supervisors determines that applicant has complied with applicable criteria as prescribed in the Township Zoning Ordinance. The Board of Supervisors may approve such use subject to additional conditions as needed to protect the health, safety and welfare of the residents of the Township.

DISCONNECTED IMPERVIOUS AREA: An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system and is redirected or directed to a pervious area, which allows for infiltration, filtration, and increased time of concentration.

ELECTRIC POWER TRANSMISSION LINES: Electric power lines from power stations to substations or between substations. Typically greater than 69 kV.

ELECTRIC SUBSTATION: Part of an electrical generation, transmission, and distribution system, transforming voltage from high to low, or the reverse, or interconnecting two different transmission voltages. Includes switching stations, which are substations without transformers and operating at a single voltage.

ENERGY STORAGE: A structure capable of storing solar energy produced by the solar array for use later. May consist of batteries, heated water or other storage media. Lithium, Lithium ion and hydrogen storage systems are not permitted.

FINANCIAL SECURITY: A form of security permitted by the Pennsylvania Municipalities Planning Code and subject to review by the Township solicitor.

GLARE: The effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

MUNICIPALITY or TOWNSHIP: Jefferson Township, Washington County, Pennsylvania.

PARTICIPATING LANDOWNER: A property owner that has a lease or an agreement with the Applicant to sell, lease, or otherwise use their property for the development of an SEF.

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

SOLAR ARRAY: A grouping of multiple solar modules/panels with the purpose of harvesting solar energy.

SOLAR EASEMENT: 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 or thermal power and supply electrical or thermal power primarily for off-site use. An SEF typically produces in excess of 3 MW of power.

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

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

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 cooling, and/or for electricity.

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

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

VIEW SHED ANALYSIS: A type of analysis showing the locations visible and non-visible in all of the areas surrounding the SEF.

Section 2 - Administration and Enforcement

A. Permit Applications:

1. Permit applications for SEFs shall document compliance with this Ordinance and shall be accompanied by the following:
 - a. A narrative describing the proposed Solar Energy Facility, including an overview of the project; the project location; the approximate generating capacity of the Solar Energy Facility, the approximate number, representative types and height or range of heights of the panels or other Solar Electric System equipment to be constructed, including their generating capacity, dimensions and respective manufacturers, and a description of all ancillary facilities.
 - b. Drawings showing the location of the Solar Energy Facility on the building or property, including property lines. Permits must be kept on the premises where the Solar Energy Facility is located.
 - c. An affidavit or similar evidence of agreement between the Landowner of the real property on which the Solar Energy Facility is to be located and the Facility Owner, demonstrating that the Facility Owner has permission of the Landowner to apply for necessary permits or approvals for construction and operation of the Solar Energy Facility ("Participating Landowner Agreement").
 - d. Identification of the properties or portions thereof on which the proposed Solar Energy Facility will be located, and the properties adjacent to where the Solar Electric Energy Facility will be located.
 - e. A site plan showing the planned location of the Solar Energy Facility, property lines, setback lines, access roads and turnout locations, substation(s), electrical cabling from the Solar Energy Facility to the substation(s), ancillary equipment, buildings and structures, including associated distribution and/or transmission lines, and layout of all structures within the geographical boundaries of any applicable setback.
 - f. Documents related to decommissioning, including a schedule for decommissioning.
 - g. Documentation of the contractors who will perform the construction and ongoing maintenance, their qualifications and expertise.
 - h. Other relevant studies, reports, certifications, permits, and approvals as required to comply with federal, state and county regulations, including but not limited to:

- i. If the permit includes overhead power lines, construction or alteration, the operator must submit an Avian Protection Plan with the permit, following the guidelines for Avian Protection Plans (APP) if required by APLIC (Avian Power Line Interaction Committee) and USFWS (US Fish & Wildlife) and which APP shall be designed to ensure compliance with the Migratory Bird Act.
- ii. The National Pollutant Discharge Elimination System (NPDES) permit required for the project, including the Erosion & Sedimentation plan, or the applicant will apply to be approved for coverage under a General NPDES permit.
- i. The Township acknowledges that some studies, reports, certifications, permits, and approvals required by federal, state and county regulations to operate a Solar Energy System will not be complete at the time the Applicant applies for conditional use approval. Accordingly, Applicant will be required to submit with its application a narrative explaining the status of such relevant federal, state, or county studies, reports, certifications, permits, and approvals and Township approval shall be explicitly conditioned on the Applicant obtaining all required third party approvals.
- j. Manufacturer specifications for anticipated key components of the SEF, including composition, toxicological information and the physical and chemical properties of all panels and energy storage devices.
- k. Safety Data Sheets (SDS) for all anticipated materials used or installed on the development site as required by OSHA or other third-party regulatory agencies, shall be provided to the Township.
- l. An acoustical study;
- m. A view shed analysis showing all the areas from which the SEF can be seen from roadways or adjacent residential structures. The view shed analysis is not required for participating landowners or if an adjacent property owner provides the Applicant with a written waiver of this requirement.
- n. A landscaping plan showing compliance with the screening and buffering provisions set forth in this Ordinance.
- o. A Vegetation management plan is required. Applicant is encouraged, but not required, to employ local residents for mowing or agricultural activities (agrivoltaics, sheep grazing, vegetable gardening, etc.).
- p. A completed glare study ensuring that glare created by the SEF does not fall into the “red category” of glare as used in Sandia’s Solar Glare Hazard Analysis Tool.
- q. Certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories (UL), IEEE, Solar Rating and Certification Corporation (SRCC), ETL, Florida Solar Energy Center (FSEC) or other equivalent certifying organizations.

- r. A Construction Transportation Plan that shows all roadways that will be utilized to access the SEF.
- s. Written confirmation that the public utility company to which the SEF will be connected has been informed of the Applicant's intent to install a grid-connected system and has acknowledged such connection.

B. Fees and Costs:

The Applicant shall pay all permit application fees and inspection fees when seeking approval of a solar energy system under this Ordinance, which fees shall be set by Resolution of the Township Board of Supervisors.

C. Approval Process:

1. Within seven (7) days after receipt of a permit application, Jefferson Township will determine whether the application is complete and advise the Applicant accordingly.
2. Within sixty (60) days of a completeness determination, the Jefferson Township will commence a public hearing. The Applicant shall participate in the hearing and be afforded an opportunity to present the project to the public and Township officials, and answer questions about the project. The public shall be afforded an opportunity to provide comment on the proposed project.
3. Within forty- five (45) days after the close of the public hearing, the Board of Supervisors of Jefferson Township will issue a decision to approve or deny the permit application in accordance with the Pennsylvania Municipalities Planning Code. The Board of Supervisors may attach reasonable conditions to any approval as needed to protect the health, safety and welfare of the residents of the Township.
4. Throughout the permit process, the Applicant shall promptly notify Jefferson Township of any changes to the information contained in the permit application.

D. Enforcement:

The enforcement policies and procedures of the Jefferson Township Zoning Ordinance and Subdivision Ordinance shall apply to both SEFs and ASES.

E. Right-of-Entry:

Upon presentation of proper credentials, the Township through its authorized representative(s) may enter at reasonable times upon any property within the Township that has a SEF or ASES thereon to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

Section 3 - Accessory Solar Energy Systems (ASES)

A. Regulations/Criteria Applicable to Accessory Solar Energy Systems:

1. Permitted Locations. ASES shall be permitted as a use by right in all zoning districts in the Township.

2. Nonconformance. ASES constructed prior to the effective date of this Section shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to an existing ASES, whether or not existing prior to the effective date of this Section that materially alters the ASES after the effective date of this Ordinance, shall require compliance with and approval under this Ordinance. Routine maintenance or like-kind replacements do not require a permit.
3. Standards. The ASES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with the Township's Building Code, and with all applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application, including composition, toxicological information and the physical and chemical properties of all panels and energy storage devices.
4. Installers. ASES installers must certify they are listed as a certified installer on the PA Department of Environmental Protection's (DEP) approved solar installer list or that they meet the criteria to be a DEP approved installer by meeting or exceeding one of the following requirements:
 - a. Is certified by the North American Board of Certified Energy Practitioners (NABCEP).
 - b. Has completed an Interstate Renewable Energy Council (IREC) Institute for Sustainable Power Quality (ISPQ) accredited PV (Photovoltaic) training program or a PV manufacturer's training program and successfully installed a minimum of three PV systems.
 - c. For residential applications, the ASES installer must also be a registered home improvement contractor with the PA Attorney General's Office.
5. Emergency Power Shut-off. An exterior emergency shut-off device must be installed, operational and marked prominently with signage identifying the alternate power source.
6. Maintenance. Upon installation, the ASES shall be maintained in good working order in accordance with the standards of the applicable 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 action by the Township Zoning Officer.
7. Energy Production. The ASES shall be designed so that all energy created by the ASES is to be used on-site. However, in the event that sufficient excess energy is created to merit its transmission off-site (grid-tied), the owner of the ASES shall provide the code inspector written confirmation that the public utility company to which the ASES will be connected has been informed of the customer's intent to install a grid-connected system and approval of such connection has been granted.

8. **Location of On-Site Utility Lines.** All on-site utility lines and transmission lines shall be placed underground to the greatest extent possible. Additionally, any off-site transmission lines must be placed within legal rights-of-way and proof of the rights-of-way shall be provided to the Township Zoning Officer prior to construction. Privately-owned off-site transmission lines proposed to be in a public street right-of-way shall require Township approval and a right-of-way agreement with provisions indemnifying the Township from all liability related to the transmission lines.
 9. **Advertising Prohibited.** The display of advertising is prohibited except for reasonable identification of the manufacturer of the system, which shall comply with applicable Township sign regulations.
 10. **No Interference.** All solar energy systems shall be designed and located to ensure solar access without reliance on and/or interference with adjacent properties.
 11. **Glare Prevention.** All ASES shall be situated to prevent glare onto nearby residences, structures or roadways. Exterior surfaces shall have a non-reflective finish. The applicant/operator has the burden of proving that any glare produced does not have significant adverse impacts on neighboring or adjacent uses either through siting or mitigation.
 12. **Emergency Power Shut-Off Device (ESD).** All ASES shall be equipped with an emergency power shut-off switch or similar mechanism to immediately stop power transmission from the ASES to the main breaker and/or batteries. Plans for the ASES shall clearly indicate the location of the emergency power shut-off switch.
- B. **Regulations Applicable to Roof-Mounted and Wall-Mounted Accessory Solar Energy Systems (ASES):**
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 1 foot above the maximum building height specified for principal or accessory buildings within the applicable zoning district.
 3. The owner shall provide evidence certified by an appropriately licensed professional that the roof or wall-mounted system complies with the Uniform Construction Code and that the roof or wall is capable of holding the load of the ASES.
 4. Wall-Mounted ASES shall comply with the setbacks for structures in the applicable zoning district where the ASES will be located.
 5. Solar panels shall not extend beyond any portion of the roof edge.
 6. Solar panels shall be placed at least thirty (30) inches from the edge of the roof for emergency response purposes.
 7. Zoning/building permit applications shall document compliance with these provisions.
- C. **Regulations Applicable to Ground-Mounted Accessory Solar Energy Systems:**
1. **Setbacks.**

- a. The minimum setbacks from side and rear property lines shall be the same as accessory building setbacks in the applicable zoning district.
- b. A Ground-Mounted ASES shall not be located in the front yard.

2. Height.

Freestanding Ground-Mounted ASES shall not exceed twenty (20) feet in height above the ground elevation surrounding the systems.

3. Location.

Ground-Mounted ASES shall not be placed within any utility easement, public right-of-way, within any stormwater conveyance system, or in any manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system, unless the Applicant can demonstrate, to the satisfaction of the Township, that the ASES will not impede stormwater management, or in any manner alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

4. Lot area.

Ground Mounted ASES with less than seventy-five (75) square feet of proposed Solar Array coverage shall be permitted as a use by right in all zoning districts within the Township. If a ground-mounted ASES with more than seventy-five (75) square feet of a Solar Array coverage is proposed, it shall be permitted by right in the Agricultural Zoning District and shall only be permitted by conditional use in the Residential, Business, Special and Village Zoning Districts.

5. Removal.

If a Ground-Mounted ASES is removed, any earth disturbance as a result of the removal of the Ground-Mounted Solar Energy System shall be graded and re-seeded to return the disturbed area to its original condition.

6. Stormwater management.

- a. Stormwater runoff from an ASES shall be managed in accordance with the requirements of the Erosion & Sedimentation Plan.
- b. All ground-mounted ASES shall have grass or other vegetation planted and maintained beneath the panels. No bare earth or gravel is permitted.

7. Buffering.

Ground-Mounted ASES shall be buffered from any adjacent use by a buffer yard of 10 feet in width. Such buffer yard shall be part of the installation and shall be parallel and adjacent to the property boundary line.

8. Safety Signage.

Appropriate safety/warning signage concerning voltage shall be placed at ground-mounted electrical devices, equipment, and structures. All electrical control devices associated with the ASSES shall be secured to prevent unauthorized access or entry.

Section 4 - Solar Energy Facility (SEF)

A. Regulations/Criteria Applicable to All SEFs

1. SEFs are permitted by conditional use on a parcel located in the Township's Solar Energy Facility Overlay District. The Solar Energy Facility Overlay District map is attached hereto as Exhibit A and is incorporated therein by reference.
2. SEFs shall not be located in:
 - a. Floodways, as identified in the Federal Emergency Management Agency (FEMA) FIRM mapping.
 - b. Regulated natural and man-made drainage corridors, extending twenty-five (25) feet from the centerline of any such drainage feature, unless approved by the PA DEP.
 - c. Cemeteries.
 - d. Property listed on or eligible for the National Register of Historic Places or historic and cultural resources as defined in the Comprehensive Plan, except that those listed property owners, if in the Solar Energy Facility Overlay District, may choose to permit SEF on non-historical areas of their property.
 - e. Public rights-of-way.
 - f. Setback areas.
 - g. Applicant will be required to comply with applicable state law related to removal of trees and vegetation in wooded areas. It is encouraged that Applicant replace mature trees that have been harvested at the rate of two for every tree removed. The new trees may be located either in undeveloped areas of the SEF site or on adjacent properties with landowner permission.
3. Exemptions. Any physical modification to an existing SEF that expands the SEF, whether or not existing prior to the effective date of this Section, shall require approval under this Ordinance. Routine maintenance or like-kind replacements do not require a permit.
4. Standards. The SEF layout, design and installation shall comply with applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations. It shall also comply with the PA Uniform Construction Code, Act 45 of 1999, as amended, and any regulations adopted by the Pennsylvania Department of Labor and Industry as they relate to the UCC, except where another applicable industry standard

has been approved by the Department of Labor and Industry under its regulatory authority.

5. The SEF layout, design and installation shall comply with all other applicable fire and life safety requirements. This includes those of the American National Standards Institute. The Applicant shall submit certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories (UL), IEEE, Solar Rating and Certification Corporation (SRCC), ETL, Florida Solar Energy Center (FSEC) or other equivalent certifying organizations.
6. Solar panels must pass the US EPA toxicity characteristic leaching procedure test and be UL listed. It is also encouraged that the Applicant purchase the solar panels from a manufacturer that participates in the US Solar Industry Association recycling program or has another specific recycling contract. The manufacturer specifications for the key components of the SEF shall be submitted as part of the application, including composition, toxicological information and the physical and chemical properties of all panels and energy storage devices. SEFs that include energy storage are prohibited from using lithium or lithium-ion batteries and hydrogen production and/or storage.
7. A gravel berm shall be installed extending at least thirty (30) feet under and around any storage structure, and shall be of sufficient size to serve as a fire break.
8. Installers. SEF installers must certify that they are listed as a certified installer on the PA Department of Environmental Protection's (DEP) approved solar installer list or that they meet the criteria to be a DEP approved installer by meeting or exceeding one of the following requirements:
 - a. Is certified by the North American Board of Certified Energy Practitioners (NABCEP).
 - b. Has completed an Interstate Renewable Energy Council (IREC) Institute for Sustainable Power Quality (ISPQ) accredited PV training program or a PV manufacturer's training program.
9. Utility Lines. All on-site electric lines and plumbing shall be placed underground to the greatest extent feasible.
10. DC voltage Solar Array Connections may be located above ground. AC Solar Facility Connections should be located underground where feasible. However, AC Solar Facility Connections may be located above ground where the Applicant can demonstrate to the satisfaction of the Township that the overall environmental impacts would support above-ground locations.
11. The Applicant shall include a construction transportation plan that shows all roadways that will be utilized to access the SEF. The plan shall address conditions for repair or replacement if damage to Township roads occurs during construction activities. The plan shall require the Applicant and its contractors to enter into a road maintenance agreement with the Township. The construction transportation plan will need to be approved by the Township prior to construction. Traffic control is required to ensure resident safety and to allow continued flow of traffic, particularly during any construction activities.

12. The Applicant shall collaborate with emergency service professionals servicing the location of the SEF. These emergency service professionals shall include, but are not limited to, the Jefferson Township Volunteer Fire Department, the Township Zoning Officer, the Washington County Emergency Management Department to prepare an Emergency Response Plan and ensure that emergency service professionals can safely, effectively, and reasonably respond to an emergency involving an SEF. The Emergency Response Plan shall include site orientation, location and review of SDS documentation, review of emergency vehicle access, location of significant structures including the Emergency Shut-off Devices (ESD) and what is rendered safe by activating these devices, and other matters as necessary. The Applicant shall develop an Emergency Preparedness Plan and provide training to emergency service professionals regarding how to implement the plan at the SEF. All costs associated with specialized training and necessary specialized equipment to implement the Emergency Preparedness Plan shall be paid for by the Applicant.
13. Utility Confirmation. The Applicant shall provide the Township written confirmation that the public utility company to which the SEF will be connected has been informed of the Applicant's intent to install a grid-connected system and has acknowledged such connection. The Applicant or SEF owner/operator shall provide a copy of the final inspection report or other final approval from the utility company to the Township prior to the issuance of a certificate of use and occupancy for the SEF.
14. If the SEF is being used as an accessory use for commercial/industrial activity on another property, then the Township shall be informed of the intent of the SEF in the applicant's application materials.
15. No Advertising. No portion of the SEF shall contain or be used to display advertising. A small sign at the SEF vehicular entrance gate is required to state the owner of the SEF, emergency contact information including a current operating phone number that is answered 24 hours/day, 7 days/week, and address information. 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 applicable sign regulations.
16. All SEFs shall be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.
17. By accepting a permit issued by the Township for the SEF, the Applicant shall be deemed to have acknowledged and agreed that the issuance of said permit shall not, and does not, create in the property owner, its/his/her successors and assigns in title or permit, create in the property itself:
 - a. The right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining property or other property or the growth of any trees or vegetation on such property, or
 - b. The right to prohibit the development or growth of any trees or vegetation on such property, and that any such rights would need to be acquired by means of a solar easement.

17. Noise/Noise Management. An acoustical study that addresses noise produced during construction and during the facilities operation shall be included with the permit application for review and approval by the Township.
 - a. The plan, at a minimum, shall separately address noise during construction and facility operations and include mitigation, an assessment of the noise that will emanate at the perimeter fence, and the contact information for the individual(s) who is responsible for implementation and compliance both during construction and operations.
 - b. During operation of the SEF, ambient sound, as measured at the property line, shall not exceed the baseline ambient sound plus 10 dBA during daylight hours, and ambient sound, as measured at the property line, shall not exceed the baseline ambient sound at night. For the purposes of this section of the Ordinance, “night” shall be considered one hour after dusk. During construction, physical acts of construction can only be performed between the hours of 7 AM to 7 PM, Monday through Friday and 7AM to 5PM on Saturday.
 - c. The volume of sound inherently and recurrently generated shall be controlled so as not to cause a nuisance to adjacent uses. Allowance for periodic sound generated due to general maintenance activities (including mowing vegetation) during daylight hours will be made.
 - d. The acoustical study will be performed by and paid for solely by the Applicant. The acoustical study shall be reviewed by a qualified reviewer selected by the Township paid for solely by the Applicant.
18. Glare. The applicant has the burden of proving that any glare produced by the SEF 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 glare created by the SEF does not fall into the “red category” of glare as used in Sandia’s Solar Glare Hazard Analysis Tool or similar commercially available glare analysis tool.
19. Upon installation, the SEF shall be maintained in good working order in accordance with the standards of the codes under which the SEF was constructed. Failure of the owner/operator of the SEF to maintain the SEF in good working order is grounds for appropriate enforcement action by the Township Code Enforcement Officer.
20. Testing for contaminants:
 - a. If applicable, soil testing shall be performed in accordance with local, county, state, and federal requirements.
21. The following requirements apply to de-commissioning:
 - a. The SEF owner/operator is required to notify the Township immediately upon permanent cessation or abandonment of the operation. The SEF shall be presumed to be discontinued or abandoned if no commercial production of commercial quantities of electricity is generated by such system for a period of twelve (12) continuous months.

- b. The SEF owner/operator shall 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 the associated facilities in accordance with industry practice.
- c. In the event that the present SEF owner/operator has temporarily ceased its operation but is in the process of transferring ownership and SEF management/operation, the present owner/operator has the responsibility of notifying the Township.
- d. The SEF Owner/Operator is encouraged to resell or salvage materials to the fullest extent possible. However, materials that cannot be re-sold or salvaged shall be disposed of at a facility authorized to dispose of such materials in accordance with federal or state law.
- e. Any soil exposed during the removal shall be stabilized in accordance with applicable erosion and sediment control standards.
- f. Any paved access drives from public roads shall remain for future use unless directed otherwise by the landowner.
- g. Any necessary permits, including Erosion and Sedimentation and NPDES permits, shall be obtained prior to decommissioning activities.
- h. At the time of issuance of approval for the construction of the SEF, the SEF owner/operator shall provide financial security in the form and amount acceptable to the Township and in favor of the Township, to secure its obligations under this Section.
- i. The Applicant shall, at the time of the submission of a conditional use application, provide the Township with an estimate of the cost of performing the decommissioning activities required herein. 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.
- j. 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 below 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 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 municipal owner shall release any amounts held in excess of 110% of the updated decommission cost estimate.
- k. Decommissioning security estimates shall be subject to review and approval by the Township's engineer.
- l. The decommissioning financial security shall be in a form to be approved by the Township's solicitor and in an amount according to the following

schedule, with recalculation of cost and adjustment of balance performed every five years:

- i. 30 days before construction: 10% of decommissioning cost, in effect until next five-year period.
- ii. Year 5: 20% of decommissioning cost, in effect until next five-year period.
- iii. Year 10: 40% of decommissioning cost, in effect until next five-year period.
- iv. Year 15: 60% of decommissioning cost, in effect until next five-year period.
- v. Year 20: 80% of decommissioning cost, in effect until next five-year period.
- vi. Year 25: 100% of decommissioning cost, in effect until next five-year period.
- vii. Year 30: 110% of decommissioning cost, in effect until next five-year period. All future 5-year periods will be at this rate.
- viii. 30 days prior to the beginning of each succeeding 5-year period, the cost of decommissioning is to be evaluated and adjusted as needed. The Township can get estimates from contracting firms if costing from the SEF owner/operator appears inadequate, and the cost of such estimates shall be paid by the SEF owner/operator. The SEF owner/operator must obtain actual costs from at least two local contractor firms capable of performing the work and furnish these to the Township.
- ix. If the SEF owner/operator defaults, the Township may immediately execute upon the financial security in accordance with the Pennsylvania Municipalities Planning Code. If funds are insufficient, the landowner remains responsible, and the Township may complete the decommissioning. Any costs incurred by the Township, including attorneys' fees, shall constitute a lien against the subject property and shall be collectible by the Township in accordance with law.
- x. Prior to final approval of any plans for the SEF, the SEF owner/operator shall enter into a decommissioning agreement with the Township outlining the responsibility of parties under as to the decommissioning of the SEF.

B. Ground-Mounted SEF:

1. The SEF development area is equal to the total acres of land subject to lease or owned by the SEF owner/operator. Where the area of land subject to the lease or owned is greater than 75% of the parcel, the entire parcel will be considered to be the SEF development area.

2. Minimum Lot Size.

The Ground-Mounted SEF shall be located on a lot that is be at least 10 acres in size.

3. Setbacks.

Ground-Mounted SEFs shall be setback a minimum of 100 feet from property lines and 300 feet from any non-participating owner's existing residential structure. Additionally, all inverters shall be setback 500 feet from all adjacent non-participating owner's residential structures.

4. Height.

- a. Ground-Mounted SEFs shall not exceed 20 feet in height.
- b. All other SEF components shall comply with the underlying district maximum height requirement.
- c. There are no maximum height restrictions for structures that support Solar Facility Connections and Solar Project Connections.

5. Stormwater Management.

- a. Stormwater runoff from a Ground-Mounted SEF shall be managed in accordance with the requirements of the Erosion & Sedimentation Plan.
- 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 (pervious surface). 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 protection 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 80% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation.
 - iii. For panels located on slopes of 0 to 15% a minimum 4" height of vegetative cover shall be maintained.
 - iv. Panels located on slopes greater than 15% cannot be considered a DIA.
 - v. Vegetated 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 control plan.
 - vi. Agrivoltaics may be used provided that:

- only crops suitable for the conditions are used;
 - a written erosion and sediment control plan is developed for agricultural plowing or tilling activities or a portion of the overall farm conservation plan identifies BMPs (best management practices) used;
 - any grazing, cutting or mowing of the agricultural crop is limited to the accepted best management practice height for that crop;
 - application of chemical fertilization or herbicides/pesticides is limited to the agronomic needs of the crop(s);
 - if the property will be used for grazing of livestock, and/or manure application to crop land, a manure management plan must be developed.
- vii. Where the Solar Panels within a Solar Array are arranged in a fashion that:
- allows the passage of runoff between each Solar Panel, thereby minimizing the creation of concentrated runoff; and/or
 - allows for the growth of vegetation beneath the panel and between the Solar Arrays.
- c. The horizontal area of a Solar Panel or Solar Array that cannot meet all the conditions to be considered a 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.
- d. 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.
- e. All impervious areas associated with the ASES such as roadways and support buildings cannot be considered as DIAs and shall follow normal protocols when performing the PCSM stormwater analysis.
- f. Stormwater control must be maintained for the life of the development.
6. Screening and buffering.

Ground-Mounted SEF shall be screened and buffered in accordance with the following standards:

- a. Vegetative buffering shall be installed around the SEF in a manner which will to the greatest extent feasible based upon the topography of the land, prevent the SEF from being seen from roadways adjacent to the SEF and/or non-participating owner's residential structures on adjacent properties.
- b. The vegetative buffering shall be installed along the exterior side of the fencing. All required vegetative buffering shall be located in a manner to

achieve the goal of preventing the SEF from being seen from roadways and/or adjacent residential structures to the fullest extent practicable.

- c. Vegetative buffering should be designed to emulate the mix of non-invasive 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 access 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.
- d. No less than 20% of vegetative buffering plantings shall be pollinator friendly species. 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 (36) months of the installation of the SEF.
- e. A combination of natural topography and vegetation can serve as a buffer, provided that the SEF will not be visible from public roads, public parks or existing residences on surrounding properties.
- f. The buffering requirements of this section shall supersede the provisions of any municipal zoning or subdivision and land development ordinance as they may pertain to SEFs.
- g. The Applicant shall submit a viewshed analysis and landscaping plan with its application to show compliance with the above-listed screening and buffering provisions.

7. Security.

- a. All Ground-Mounted SEFs shall be completely enclosed by fencing that consists of a minimum seven (7) foot high fence with a self-locking gate, or as required by the Township.
- b. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the SEF informing individuals of potential voltage hazards.
- c. The entry gate shall be accessible 24 hours a day by emergency personnel and vehicles, whether by key, or access code, which shall be provided to the Fire Chief of Jefferson Township Volunteer Fire Department, the Jefferson Township Board of Supervisors, and the Washington County Emergency Management Department.
- d. An emergency shut off device (ESD) shall be installed near to the entry gate and also at the ancillary structures installed near the center of facility. This ESD shall shut off power generation and render the facility safe to allow for inspection, service, and emergency services and be usable by emergency personnel.

- e. Jefferson Township shall be provided the updated emergency contact information for all contractors, subcontractors and site-management agencies.
8. Access.
- a. Stabilized access drives that are maintained in a dust-free condition from a state or township road are required in order to allow maintenance and emergency management vehicles to access the SEF site. The minimum cart-way width shall be twenty (20) feet. The SEF owner/operator shall obtain a permit from the appropriate jurisdiction for the construction of the access road.
 - b. At a minimum, a twenty (20) foot wide cart-way shall be provided on the inside of the perimeter fencing between the fence and the Solar Array, with adequate turning radius to permit emergency vehicles.
 - c. Spacing between Solar Array rows shall allow access for maintenance and emergency vehicles.
 - d. Access to the SEF shall comply with the Township's access requirements found in the Township's subdivision ordinance.

9. Lighting.

The Ground-Mounted SEF shall not be artificially lighted except to the extent required for safety or applicable federal, state, or local authorities. Any required lighting shall be directed downward so as to minimize negative impacts to adjacent uses, fitted with motion detector sensors to ensure shutoff when not in use, limited to minimum intensity, and warm colored. The SEF owner shall conform to "dark sky" best practices.

- 10. The Solar Energy Facility must be properly maintained and be kept free from all hazards including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare.
- 11. Further, any violation of any required federal, state or county permit is also a violation of a zoning permit issued under this Ordinance and requires that the Applicant cease operations if the violation is not resolved within a reasonable period of time.

C. Roof and Wall-Mounted Solar Energy Facilities:

- 1. The Applicant for a Roof and/or Wall-Mounted SEF 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. Height Regulations.
The total height of a building with a Roof or Wall-Mounted SEF shall not exceed by more than one foot above the maximum building height specified for principal or accessory buildings within the applicable zoning district.

3. Roof and Wall-Mounted Solar Energy Facilities are permitted in any zoning district where the building upon which they will be mounted is a permitted use.
4. Roof and Wall mounted SEFs shall comply with the setbacks for principal and accessory structures, as applicable depending on what type of structure they are mounted on, in the underlying zoning districts.

D. Solar Energy Facilities with Electric Power Transmission Lines and/or Electric Substation(s).

In instances where an applicant intends to construct electric power transmission lines and/or electric substation(s) in addition to the SEF, its application must comply with the below requirements:

1. Electric Power Transmission Lines.
 - a. These facilities shall meet 2017 National Electrical Safety Corporation from IEEE as amended, the North American Electric Reliability Corporation (NERC) standards as amended and comply with all state and federal laws applicable to the project.
 - b. Complete plans for the siting of the proposed lines including ownership of the line, and a list of the property owners on whose land the line will be built, shall be provided to the Township for review. The applicant shall also provide evidence of the regulatory and construction approval process applicable for the project and shall provide final regulatory approval and evidence of compliance with all state and federal regulations applicable for the project prior to the commencement of construction.
 - c. Overhead electric power transmission lines are prohibited to have the centerline of the proposed transmission Right of Way be located within 200 feet of residential structures, unless agreed to by the landowner. Underground electric power transmission lines are prohibited within 100 feet of a residential structure.
 - d. Electric power transmission lines are prohibited to have the centerline of the proposed transmission Right of Way be located within 200 feet of residential and special use zones, unless on public Right of Way or agreed to by the landowner.
 - e. Property owners within 1,000 feet of the proposed transmission Right of Way must be notified by mail prior to the hearing.
2. Electric Substation.
 - a. These facilities shall comply with the National Electrical Safety Code from IEEE as amended, The North American Electric Reliability Corporation (NERC) standards as amended and comply with all state and federal laws applicable to the project.
 - b. The applicant shall submit complete plans for the siting of the proposed station, including ownership, building size and construction, ingress/egress roads, parking, fencing, and landscaping have been received for review. The

Applicant shall also provide evidence of the regulatory approval process applicable for the project and shall provide final regulatory and construction approval and evidence of compliance with all state and federal regulations applicable for the project prior to the commencement of construction.

- c. Setback from lot edges along public roads: 100 feet.
- d. Setback from all adjoining landowner's property lines, unless agreed to by the landowner: 100 feet.
- e. Property owners within 1,000 feet of the substation lot edges must be notified by mail prior to the hearing.
- f. Access must be on all-weather driveway with appropriate highway access permits and the operator shall maintain the driveway, lot and parking areas.
- g. On-site parking for service vehicles must be provided.
- h. Fencing must be sufficient to secure against human and animal incursion. Security fencing cannot intrude into the setback area along public roads.
- i. Landscaping and berms are required to reduce the adverse visual impact and fit the project into the rural landscape. The landscaping may be placed within the setback area.

3. For SEF that include transmission lines and/or electrical substations, the Applicant will only be required to apply for and obtain one conditional use approval.

Section 5 – Construction and Severability

- A. The provisions of this Ordinance shall be construed to the maximum extent possible to further the purposes and policies set forth herein, as consistent with applicable state statutes and regulations. If the provisions of this section and state law are in conflict, then state law shall prevail.
- B. It is the intention of the Township's governing body that the provisions of this Ordinance are severable and if any provisions of this Ordinance shall be declared unconstitutional or invalid by the judgment or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining provisions of this Ordinance.

Section 6 – Repealer

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

Section 7 – Effective Date

ORDAINED and ENACTED into law by the Board of Supervisors of the Township of Jefferson, Washington County, Pennsylvania, this _____ day of _____, 2024.

ATTEST:

TOWNSHIP OF JEFFERSON

Christopher Lawrence, Chairman
Jefferson Township Board of Supervisors