Solar Energy Systems Ordinance

Section 1 - Introduction

WHEREAS, the Pennsylvania Municipalities Planning Code, act of July 31, 1968, as amended, 53 P.S. §§ 10101 *et seq.*, enables a Municipality through its zoning ordinance to regulate the use of property and the conservation of energy through access to and use of renewable energy resources; and

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

WHEREAS, the residents of the Municipality have stated in surveys and in the Comprehensive Plan the desire to maintain the rural, agricultural and residential nature of the Municipality; and

WHEREAS, the Municipality wishes to protect farmland to ensure it is available to produce crops and livestock to feed people, and

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

IT IS HEREBY ENACTED AND ORDAINED by the Supervisors of Jefferson Township, Washington County, Pennsylvania as follows:

Section 2 - 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 k WH 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”.

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

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.

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.

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 including a cash deposit, surety bond, irrevocable letter of credit, cashier's check, or escrow account from a federal or Commonwealth chartered lending institution and in a form satisfactory to the Municipality and municipal solicitor.

IMPACT FEE: a fee based on the actual solar generation and sale to offset costs to the Township for the additional burden of the Solar Energy Facility on Township infrastructure and staffing.

Municipality: Jefferson Township, Washington County, Pennsylvania.

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

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

SOLAR ENERGY PROJECT OWNER: The individual, group or entity responsible for the permitting, construction and/or operation of a Solar Energy Facility to the Solar Project Connection.

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.

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

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

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

4. 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 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 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 3 - Accessory Solar Energy Systems (ASES)

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

1. ASES shall be permitted as a use by right in all zoning districts.
2. 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, shall require approval under this Ordinance. Routine maintenance or like-kind replacements do not require a permit.
3. ASES with a kilowatt per hour (kWh) electricity production of 25 kWh or less are exempt from this ordinance, but will require both zoning and building permits and must comply with all applicable provisions of the Uniform Construction Code (UCC). Building permits submitted for ASES to be exempt hereunder shall include a certification of the kWh electricity production expected from the ASES.
4. The ASES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with the Municipality's Building Code, and with all applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application, including composition, toxicological information and the physical and chemical properties of all panels and energy storage devices. Additionally, 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 training program or a PV manufacturer's training program and successfully installed a minimum of three PV systems.

5. For residential applications, the ASES installer must also be a registered home improvement contractor with the PA Attorney General's Office.

6. An exterior shut-off device must be installed, operational and marked prominently with signage identifying the alternate power source.

7. 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 code enforcement officer. The Municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

8. 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, 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.

9. All on-site utility lines, transmission lines, and plumbing shall be placed underground to the greatest extent possible. 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 Zoning Officer prior to land development plan approval. Privately-owned off-site transmission lines proposed to be in a public street right-of-way shall require Municipal approval and a right-of-way agreement with provisions indemnifying the Municipality from all liability related to the transmission lines.

10. Signage shall comply with the prevailing sign regulations.

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

12. All ASES shall be situated to prevent concentrated 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.

B. 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. ASES mounted on roofs or walls of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within each of the applicable zoning districts.

3. 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 districts.

5. Solar panels shall not extend beyond any portion of the roof edge.
6. Zoning/building permit applications shall document compliance with these provisions.

C. Ground-Mounted Accessory Solar Energy Systems:

1. Setbacks.

   a. The minimum setbacks from side and rear property lines shall be equivalent to the accessory building setbacks in the applicable zoning district.

   b. A Ground-Mounted ASES shall not be located in the required front setback.

   c. Ground-Mounted ASES are prohibited in front yards unless unique physical circumstances or conditions exist that preclude it from being located in a side or rear yard. Such physical conditions may include, but are not limited to, restricted solar access in other yards, other resource constraints, unusual situation of the principal use on the parcel, etc.

2. Height.
   Freestanding Ground-Mounted ASES shall not exceed 20 feet in height above the ground elevation surrounding the systems.

3. Location.

   Ground-Mounted ASES shall not be placed within any legal easement or right-of-way or be placed within any stormwater conveyance system, or in any other 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 Municipality, 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. 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.

5. 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.

6. Buffering.

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

7. 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 ASES 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 a conditional use in the Agricultural and Business districts only.
2. SEFs constructed prior to the effective date of this Section shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing SEF, whether or not existing prior to the effective date of this Section that expands the SEF shall require approval under this Ordinance. Routine maintenance or replacements do not require a permit.
3. A conditional use permit for an SEF is not transferrable. This permit shall be granted solely for the subject property. It shall be binding on any successors, assignees, current or future lessee, sub-lease, or owner of the SEF and shall not be assignable to a third party absent the written consent of the Board of Supervisors of Jefferson Township.
4. 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 the 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, 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 an 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 similar certifying organizations.
6. A construction phase plan shall be provided. Construction shall be phased so that no more than 25 acres are disturbed at one time. A 25 acre disturbed area must be stabilized prior to the next phase.
7. Solar panels must pass the US EPA toxicity characteristics leaching procedure test and be UL listed and be from a manufacturer that participates in the US Solar Industry Association recycling program. Preference is for silicon based solar panels that do not contain cadmium telluride or cadmium sulfide. 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.
8. SEFs that include energy storage are prohibited from using lithium or lithium ion batteries and hydrogen production and/or storage. A gravel berm shall be installed extending at least 30 feet under and around any storage structure, and shall be of sufficient size to serve as a fire break. Vegetation control must be maintained throughout the life of the SEF.

9. SEF installers of projects rated at 3 MW or greater must demonstrate that they have installed at least 3 utility-scale solar projects in the last 2 years. SEF 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 training program or a PV manufacturer's training program and successfully installed a minimum of three PV systems.

10. All on-site utility transmission lines and plumbing shall be placed underground to the greatest extent feasible.

11. 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 Municipality that the overall environmental impacts would support above ground locations.

12. The Applicant 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 and approval. The plan shall address conditions for repair or replacement if damage to municipal roads occurs during construction activities. The plan shall require the applicant and contractors to enter into a road maintenance agreement as required by other energy operators currently operating within the township. Traffic control is required to ensure resident safety and to allow continued flow of traffic, particularly during any construction activities.

13. The owner of a SEF shall provide the Municipality written confirmation that the public utility company to which the SEF will be connected has been informed of the customer's intent to install a grid connected system and approved of such connection. The owner shall provide a copy of the final inspection report or other final approval from the utility company to the Municipality prior to the issuance of a certificate of use and occupancy for the SEF.

14. If a SEF is being used as an accessory use for commercial/industrial activity on another property, then the Municipality shall be informed of the intent of the SEF.

15. 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, 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 prevailing sign regulations.

16. All SEFs shall be situated to prevent concentrated glare onto nearby structures or roadways. Exterior surfaces shall have a non-reflective finish. 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 as provided in this ordinance, and a glare study may be required, which shall be paid for by the Applicant.

17. All SEFs shall be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.

    a. By accepting a permit issued by the Municipality 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:

1) 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

2) 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.

18) Solar Easements

a. Where a subdivision or land development involves the use of solar energy systems, solar or easements may be provided. Said easements shall be in writing, and shall be subject to the same conveyance and instrument recording requirements as other easements.

b. Any such easement shall be appurtenant; shall run with the land benefitted and burdened; and shall be defined and limited by conditions stated in the instrument of conveyance. Instruments shall include at least the following:

1) A description of the dimensions of the easement;

2) Restrictions on the placement of vegetation, structures, and other objects which may impair or obstruct the passage of sunlight through the easement;

3) Detail the terms and conditions, if any, under which the easement may be revised or terminated;

4) Explain the compensation for the owner of the real property subject to the easement for maintaining the easement and for the owner of the real property benefitting from the easement in the event of interference with the easement.

5) Owner information, deed book volume and page or document number, along with the parcel identification number.

19. A noise management plan that addresses noise produced during construction and during the facilities operation, to be approved by the Municipality, shall be included with the permit application. 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. The volume of sound inherently and recurrently generated shall be controlled so as not to cause a nuisance to adjacent uses. During operation of the SEF, audible sound shall follow best management practices regarding sound, as measured at the property line on a non-participating landowner's property.

a. Noise limits and testing requirements:

1) During construction, hours of operation are limited to 6 AM to 8 PM, Monday through Saturday. Noise of construction should be minimized.

2) Upon completion of construction, noise levels measured at night and at each edge of the property may not exceed 45 decibels, the recognized rural background level, unless pre-construction levels were measured and demonstrated to be higher.

3) Noise testing shall be conducted upon complaint of adjoining residents. If noise generated by the operation of the large scale solar facility exceeds 45 decibels or the

pre-construction measured levels at the edge of the property, the equipment responsible shall be surrounded by sound dampening structures as needed to reduce the level to the required 45 decibels or pre-construction level.

20. The SEF owner and/or operator shall maintain and post on fencing an identification of a local person or entity responsible for the public to contact with inquiries, complaints, and public safety issues, throughout the life of the project and provide the number and name to the Municipality.

21. Testing for contaminants:

    a. Pre-construction baseline testing of the soil and water must be conducted to establish levels of heavy metals, plastics, other harmful chemicals, and runoff silt.

        i. Heavy metals and harmful chemicals must be remediated prior to construction.

    b. Annual testing will be conducted to verify no increase in levels.

    c. Testing will be done by an independent testing company at the expense of the facility owner by a company approved by the Municipality or agreed upon by both parties..

    d. Increase in toxicity or silt must be remediated within 3 months or the Municipality may revoke the operating permit and require cessation of power generation until remediated.

    e. Upon completion of decommissioning testing shall be repeated to ensure no remaining contaminants, which shall be remediated and retested until removed completely.

22. 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 property owner to maintain the SEF in good working order is grounds for appropriate enforcement action by the Code Enforcement Officer. The Municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property and cessation of generation.

23. The following requirements apply to de-commissioning:

    a. The SEF owner is required to notify the Municipality immediately upon permanent cessation or abandonment of the operation. The SEF shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of twelve (12) continuous months.

    b. If it is determined that an SEF has permanently ceased its operation, or has been abandoned, the SEF owner 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 agreements with landowners and good industry practice.

    c. In the event that the present SEF owner has temporarily ceased its operation, but is in the process of transferring ownership and SEF management, the present owner has the responsibility of notifying the Municipality which will allow this transference to occur within 18 months of this notification.

    d. 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 a facility authorized to dispose of such materials by 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 access drive paved aprons from public roads shall remain for future use unless directed otherwise by the landowner.

g. 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.

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

i. At the time of issuance of approval for the construction of the SEF, the owner shall provide financial security in the form and amount acceptable to the Municipality and in favor of the Municipality, to secure its obligations under this Section.

1) The SEF developer shall, at the time of the permit application, provide the Municipality 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 de-commissioning activities minus 90% credit of salvage and resale value equals the decommissioning cost estimate.

2) 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 Municipality within 30 days of the approval of the updated decommissioning security estimate by the Municipality. 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.

3) Decommissioning security estimates shall be subject to review and approval by the Municipality, and the SEF developer/owner shall be responsible for administrative, legal, and engineering costs incurred by the Municipality for such review.

4) The decommissioning security shall be in the form of an interest bearing cash escrow deposit held in a local federal or Commonwealth chartered lending institution in the joint names of the SEF owner and Jefferson Township, in the amount according the to following schedule, with recalculation of cost and adjustment of balance performed every five years

5) Escrow deposit schedule:

a. 30 days before construction: 10% of decommissioning cost, in effect until next five year period.

b. Year 5: 20% of decommissioning cost, in effect until next five year period.

c. Year 10: 40% of decommissioning cost, in effect until next five year period.

d. Year15: 60% of decommissioning cost, in effect until next five year period.

e. Year 20: 80% of decommissioning cost, in effect until next five year period.

f. Year 25: 100% of decommissioning cost, in effect until next five year period.

g. Year 30: 110% of decommissioning cost, in effect until next five year period. All future 5 year periods will be at this rate.

h. 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 Municipality can get estimates from contracting firms if costing from the developer appears inadequate, and the cost of such estimates shall be paid by the developer. The developer must obtain actual costs from at least two local contractor firms capable of performing the work and furnish these to the Municipality.

i. If developer defaults, the escrow funds revert to the Municipality for use in decommissioning, with any excess to become general Municipality funds. If funds are insufficient, the land owner remains responsible and a lien is filed on the land until paid.

6) Prior to final approval of any plans for a SEF, the SEF developer shall enter into a decommissioning agreement with the Municipality outlining the responsibility of parties under this agreement 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 developer. 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. Solar Related Equipment Locations.

a. Solar Related Equipment may only be located on non-prime (Class VII, and VIII) agricultural soils.

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 of the Class I, II, III, IV, V, and VI agricultural soils, and the portion of the SEF development that may be devoted to Solar Related Equipment.

c. Solar Related Equipment shall only be placed within that portion of any lot that has a defined SEF development area.

d. Solar Related Equipment shall not be located in:

1) Floodways, as identified in the FEMA FIRM mapping.

2) Regulated natural and man-made drainage corridors, extending twenty-five (25) feet from the centerline of any such drainage feature, unless the PA DEP at time of plan approval determines a lesser setback would create less impacts to the overall project.

3) Wetlands.

4) Riparian buffers extending twenty-five (25) feet from any wetland or body of water, unless the PA DEP at the time of plan approval determines a lesser setback would create less impacts to the overall project.

5) Slopes in excess of fifteen percent (15%), unless the PA DEP at the time of plan approval determines location in an area in excess of 15% would create less impacts to the overall project.

6) Property listed on or eligible for the National Register of Historic Places or historic and cultural resources as defined in the Comprehensive Plan and cemeteries.

8) Legal easements and rights-of-way.

9) Setback areas.

e. Woodland areas.

Forested areas should be preserved and forest transitions, including pre-construction logging, are limited to less than five acres. Harvested mature trees shall be replaced at the rate of two for every one removed and may be located either on the SEF site in undeveloped areas or on adjacent properties with landowner permission.

3. Minimum Lot Size.

The Ground-Mounted SEF shall meet the lot size requirements of the applicable zoning district.

4. Setbacks.

a. Ground-Mounted SEFs shall: be setback a minimum of 100 feet from property lines and 300 feet from any adjacent lot's existing residential structure.

b. Required fences shall be considered principal structures for purposes of setbacks. Minimum setbacks shall be in accordance with the underlying zoning requirements.

c. No side or rear setback will be required where a Solar Energy Project spans across lot lines, provided each landowner has signed a written waiver of the lot line setback.

5. 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. SEF components may be in excess of the maximum height requirement where the Applicant can demonstrate to the satisfaction of the Municipality that the height is a necessity and is beneficial.

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

6. 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:

1) 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.

2) Where the vegetative cover has a minimum uniform 80% 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 a DIA.

c) 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.

d) Agrivoltaics may be used provided that:

i. only crops suitable for the conditions are used;

ii. 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 used;

iii. any grazing, cutting or mowing of the agricultural crop is limited to the accepted best management practice height for that crop;

iv. application of chemical fertilization or herbicides/pesticides is limited to the agronomic needs of the crop(s);

v. if the property will be used for grazing of livestock, and/or manure application to crop land, a manure management plan must be developed.

3) 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; and/or

b) 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.

1) 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.

2) 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.

7. Screening and buffering.

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

a. Vegetative buffering, to the extent practical, shall be installed around the entire perimeter of the SEF installation, except where the Municipality determines that the retention of

existing trees within the vegetative buffering area may constitute the required vegetative buffer.

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 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 Solar Energy Project (SEP) will not be visible from public roads, public parks or existing residences on surrounding properties. Earthen berms may not be created to serve as a buffer.

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.

8. 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 Municipality.

b. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the 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 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.

9. 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 20’. 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 cart-way shall be provided on the inside of the perimeter fencing between the fence and the Solar Array.

c. Spacing between Solar Array rows shall allow access for maintenance and emergency vehicles.

d. Access to the SEF shall comply with the municipal access requirements found in the subdivision and land development ordinance.

10. 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.

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.

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

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.

Section 5 - Administration and Enforcement

A. Permit applications

1. Permit applications shall document compliance with this Ordinance and shall be accompanied by the following:

a. A narrative describing the proposed Solar Electric Energy Facility, including an overview of the project; the project location; the approximate generating capacity of the Solar Electric 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 system on the building or property, including property lines. Permits must be kept on the premises where the solar energy system 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 each 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. Local Pennsylvania based contractors shall be used, unless expertise not locally available is required and documented.

h. Other relevant studies, reports, certifications and approvals as may be provided by the Applicant or required by Jefferson Township to ensure compliance with this Ordinance, including but not limited to:

1) The Erosion & Sedimentation plan. Stormwater control must be maintained for the life of the development.

2) Evidence of the soil types within the proposed development and a map of them overlaid on the site.

3) A plan for vegetative buffer zones to screen the development from roadways and adjoining residential structures.

4) 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) by APLIC and USFWS (US Fish & Wildlife) and designed to ensure compliance with the Migratory Bird Act. Found at www.Aplic.org.

5) Plan to eliminate glare from roadways and surrounding residences.

6) A view shed analysis showing all the areas from which the structures of the proposed SEF could be seen as well as any views that would be obscured from any particular location.

7) For contiguous sites of 500 or more acres, a habitat/threatened and endangered species study with impacts to wildlife must be filed with the permit application to the Municipality.

8) For contiguous sites of 500 or more acres, a plan to mitigate habitat and wildlife impacts is required that incorporates at least the following:

a) Allow wildlife corridors

b) Maintain existing wetlands and waterways. Minimum distance between wetlands and waterways to panels or equipment is 100 feet.

c) Use only non-invasive native species

d) Emphasize pollinator support through plantings (such as Ernst Fuzz & Buzz)

e) No chemical fertilizer, herbicide or insecticide may be used, except the minimum herbicide required to control invasive species while growth of final ground cover becomes established.

9) A Vegetation management plan is required. Preference is given for employing local residents for mowing or agricultural activities (agrivoltaics, ex. sheep grazing, vegetable gardening).

10) If a National Pollutant Discharge Elimination System (NPDES) permit is required for the project, or the applicant will apply to be approved for coverage under a General NPDES permit, a copy must be provided to the Municipality with the permit request.

i. The permit shall be revoked if the solar energy system, whether new or pre-existing is moved or otherwise altered, either intentionally or by natural forces, in a manner which causes the solar energy system not to be in conformity with this Ordinance.

j. The solar energy system must be properly maintained and be kept free from all hazards including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare.

k. An approved land development plan shall accompany all permit applications excluding those for ASES which are accessory to a single-family residential use.

B. Fees and Costs

1. The Applicant shall pay all permit application fees and inspection fees when seeking approval of a solar energy system under this Ordinance, which fees shall be set by resolution.

2. The Applicant shall, prior to receipt of an approved permit, reimburse the Municipality for any actual fees or costs incurred arising out of or related to the Application (collectively the "Costs"). The Costs shall include, but not be limited to, engineering, zoning officer, building code official and legal fees.

3. Annually, by February 15 of the year after the first calendar year with solar energy production, whether a full year or part, an impact fee shall be due and payable. The Impact Fee is an annual fee of 1% of the settled PJM West Hub price or contract price per MW hour (reference price) over the calendar year times the number of MW hours sold (reference volume) according to the PJM report figures. It is due and payable on February 15 of the year following each calendar of production, and is paid in arrears.

4. The Applicant shall provide the accounting documents necessary to properly assess the impact fee by January 31 of the year following the full or partial calendar year of production, for each year when there is solar energy produced from the facility, whether sold or stored or wasted.

C. Modifications

1. The Municipality may grant modification of the requirements of one or more provisions of this Ordinance if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the property in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of the Ordinance is observed.

2. All requests for a modification shall be in writing and shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the Ordinance involved and the minimum modification necessary.

3. Any physical modification to an existing and permitted Solar Electric Energy Facility that materially alters the size, type and number of Solar Electric Systems or other equipment shall require a permit modification under this Ordinance. Like-kind replacements shall not require a permit modification.

D. Approval Process

1. Within thirty (30) 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 schedule a public hearing. The applicant shall participate in the hearing and be afforded an opportunity to present the project to the public and municipal officials, and answer questions about the project. The public shall be afforded an opportunity to ask questions and provide comment on the proposed project.

3. Within one hundred and twenty (120) days of a completeness determination, or within forty-five (45) days after the close of any hearing, whichever is later, Jefferson Township will make a decision whether to issue or deny the permit application.

4. Throughout the permit process, the applicant shall promptly notify Jefferson Township of any changes to the information contained in the permit application.

5. Changes to the pending application that do not materially alter the initial site plan may be adopted without a renewed public hearing.

E. Enforcement

The enforcement policies and procedures of the Jefferson Township Zoning Ordinance and Subdivision Ordinance apply.

F. Right-of-Entry

1. Upon presentation of proper credentials, the Municipality may enter at reasonable times upon any property within the Municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

2. Upon the receipt of a written complaint setting forth the existence of unauthorized construction, modification, or use in violation of this Ordinance, or other notice thereof, the Municipality's Zoning Officer, Code Enforcement Officer, Solicitor or other representative that may be authorized by the Municipality's governing body (the "Enforcement Officer") shall cause written notice to be given either by personal service or registered or certified mail to the Applicant of the Property upon which the violation exists, to immediately cease and the construction, modification or the unauthorized use of the solar energy system. Such a written notice shall be required to enforce the remedies set forth in this section. However, the Municipality shall still be entitled to give a verbal notice for defective systems as authorized above.

3. Upon failure of such Applicant to comply as directed in said notice, the Enforcement Officer, other municipal officials or solicitor may appear on behalf of the Municipality and initiate legal proceedings to enforce the provisions of this Ordinance before a District Magistrate.

4. Any Applicant who or which shall violate or permit to be violated the provisions of this Ordinance shall, upon being found liable therefore in a civil enforcement proceeding brought byJefferson Township before a District Magistrate, pay a fine of not less than five hundred ($500.00), plus all court costs, including reasonable attorneys fees incurred by Jefferson Township as a result thereof. No fine shall commence or be imposed, levied, or be payable until the date of the determination of the violation by a District Magistrate. Each day that a violation exists and is continued shall constitute a separate offense, unless the District Magistrate who determines that a violation has occurred further shall determine that there was a good faith basis for the defendant to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of determination by such District Magistrate and thereafter every day shall constitute a separate offense.

5. In addition, the Municipality shall also be entitled to recover from any Applicant all the Municipality's costs or fees (collectively the "Costs") arising out of or related to the

application or enforcement of this Ordinance. Such Costs may also include those to remedy violations of this Ordinance or to abate nuisances. The Costs shall include, but not be limited, engineer fees, geologist fees, attorney fees, zoning officer fees, and staff/employee time. The Costs may be collected as a Municipal Claim under applicable law against the property upon which the solar energy system, or portions thereof, is located.

6. If fines and/or costs remain unpaid for 30 days or more, Jefferson Township shall consider the permit to operate revoked, shall so notify the landowner or facility owner, and may take steps to shut down the use of the ASES or SEF.

Section 6 – Construction and Severability

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

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

Section 7 – Repealer

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

Section 8 – Effective Date

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

Enacted and Ordained this _____ day of _____ 20___.

Attest: Jefferson Township

_____ By: _____

Secretary President/Chair