Section 603.A Solar Energy

1. A solar panel which is attached to an integral part of the principal building may project two feet into the front yard; six feet into the rear yard; and two feet into the side yard.

2. A solar panel which is freestanding may be located only in the required rear yard provided it is not less than five feet from the rear lot line and not closer than one foot to any existing structure as measured from the closest point of the structure including its foundation and anchorage's, nor shall the solar panel be located in the required side yard or front yard.

No solar panel shall be constructed within the zoning jurisdiction of Madison County unless a Zoning Permit therefore is approved and is constructed in conformance with the state building codes and the following requirements. For those devices that include electrical, plumbing and heating constructions, the applicable permits shall also be obtained. Solar panels shall meet the following requirements:

Lot and Height Requirements:

Solar panels shall conform to the required front, side and rear lot setback requirements except as provided herein:

Structural Requirements:

The physical structure and connections to existing structures shall conform to the applicable state building codes.

Plot Plan:

The application for a permit shall be accompanied by a plot plan drawn to scale showing property lines, existing structures on the lot, proposed solar panel location with respect to property lines, and dimensions of the proposed solar panel.

Permit Fees:

Permit fees are required. This permit fee shall be paid prior to the issuance of the zoning permit.

Preexisting Solar Panels:

Notwithstanding noncompliance with the requirements of this section, a solar panel erected prior to the adoption of these Regulations, pursuant to a valid building permit issued by the County, may continue to be utilized so long as it is maintained in operational condition.

603. B Solar Farms:

Applicability

The purpose of this subsection is to provide standards tor fixed-panel photovoltaic solar farms consisting of ground-mounted solar panels that capture energy from the sun and convert it to electricity. The provisions of this section are based on a ground-mounted photovoltaic facility using a rammed post construction technique and panels that support the flow of rainwater between each module and the growth of vegetation beneath the arrays and limiting the impacts of storm water runoff. The rammed post construction technique allows for minimal disturbance to the existing ground and grading of the site. Based on the assumed solar farm design, Pierce County finds the use to be low intensity with minimal trip generation, low amounts of impervious cover, and low emission thus the use is compatible in non-urbanized, low-density areas with other agricultural and scattered industrial uses.

Definitions

The following definitions pertain specifically to this section of the Resolution.

Solar Access: A property owner's right to have sunlight shine on his land.

Solar Collector: An assembly, structure, or design, including passive elements, used for gathering, concentrating or absorbing direct or indirect solar energy, specifically designed for holding a substantial amount of useful thermal energy and to transfer that energy to a gas, solid or liquid or to use that energy directly; this may include, but is not limited to, a mechanism or process used for gathering solar energy through thermal gradients, or a component used to transfer thermal energy to a gas, solid or liquid or to convert into electricity.

Solar Energy: Radiant energy received from the sun at wavelengths suitable for heat transfer, photosynthetic use, or photovoltaic use.

Solar Energy System: Solar energy device or design features of a building used for the collection, storage, and distribution of solar energy for space heating, space cooling, lighting, electric generation, or water heating

Solar Energy System, Freestanding: A solar energy system that is not attached to another structure and is ground mounted.

Solar Energy System, Joint: A solar energy collector or storage mechanism that supplies energy for structures or processes on more than one lot or in more than one dwelling unit or leasehold, but not to the general public and involves at least two owners or users.

Solar Sky space: The maximum three-dimensional space extending from a solar collector to all positions of the sun necessary for efficient use of the collector.

(A) Where a solar energy system is used for heating purposes only, solar sky space shall mean the maximum three-dimensional space extending from a solar energy collector to all positions of the sun between nine o'clock (9:00) A.M. and three o'clock (3:00) P.M. local apparent time from September 22 through March 22 of each year.

(B) Where a solar energy system is used for cooling purposes only, solar sky space shall mean the maximum three-dimensional space extending from a solar collector to all positions of the sun between eight o'clock (8:00) A.M. and four o'clock (4:00) P.M. local apparent time from March 23 through September 21 of each year.

Solar Sky space Easement: A right, expressed as an easement, covenant, condition, restriction or other property interest in any deed, will or other instrument executed by or on behalf of any landowner or in any order of taking, appropriate to protect the solar sky space of a solar collector at a particularly described location to forbid or limit any or all of the following where detrimental to access to solar energy: structures on or above ground; vegetation on or above ground; or other activities. Such right shall specifically describe a solar sky space in three-dimensional terms in which the activity, structures or vegetation are forbidden or limited or in which such an easement shall set performance criteria for adequate collections of solar energy at a particular location.

Solar Storage Mechanism: Equipment or elements such as piping and transfer mechanisms, containers, heat exchangers or controls thereof and gases, solids, liquids or combinations thereof that are utilized for storing solar energy, gathered by a solar collector, for subsequent use.

603. C Site Development Standards:

1. Lot coverage: No more than five percent of the gross site area shall be occupied by enclosed buildings.

2. Setbacks: A thirty-foot side and rear setback shall apply only to the setback area measured from a lot line that abuts a residential use or residential zoning district. ~~The side or rear setback shall be eliminated where the use does not about a residential use or residential zoning district or the two districts are separated by a public right-of-way.~~ Setbacks shall be applied as 83' from center of the road, 15 ' side and 25' rear property lines.

3. Height: The average height of the solar panel arrays shall not exceed ~~12~~ 20 feet.

4. Landscaping Buffer: The primary use of the property shall determine the buffer requirement. Where a ground-mounted photovoltaic solar farm is the primary use the property shall be considered agricultural for the purposes of buffer requirements. There is no requirement for screening from public streets.

5. Signage: Signage shall conform to Article 6 of this Resolution as well as any sign limitations of the zoning district.

6. Customer owned on-site power lines shall be buried except where connecting to existing overhead utility lines or substations. This requirement shall not apply to fiber optic connections.

7. Fencing: Due to the unique security requirements of this land use, and to facilitate the educational value of seeing this land use, fencing up to eight (8) feet in height is permitted provided the fencing material is predominantly open as defined in Appendix A.

8. All State and Federal codes and provisions not specified in this subsection are required including but not limited to tree preservation, traffic impact analysis and historic preservation.

603. D Districts

Ground-mounted fixed-panel photovoltaic solar farms may be allowed upon the approval of a Conditional Use Permit as established in Article 5 of this Resolution.

603. E Submittal Requirements:

Conditional Use Permits are required for solar farms. Plans shall contain the following:

1. A plot plan, drawn to scale, of the property indicating the total site acreage, landscape and buffer areas, tree preservation, location of all structures, the proposed location of the solar panels, the distances of the solar panels to structures on the property as well as distances to the property lines,

2. The plot plan shall include any roads, electric lines and/ or overhead utility lines.

3. A description of the electrical generating capacity and means of interconnecting with the electrical grid as coordinated and pre-approved with the appurtenant Power District.

4. A copy of the interconnection agreement with the local electric utility or a written explanation outlining why an interconnection agreement is not necessary.

5. Drawings or blueprints of solar panels and arrays in conjunction with the application for a building permit for a solar farm/solar power plant.

6. Structural engineering analysis for a solar panel, array and its foundation, as applicable.

7. Manufacturer's recommended installations, if any.

8. Documentation of land ownership and/or legal authority to construct on the property.

9. A decommissioning plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar panels must occur in the event they are not in use for 12 consecutive months. The plan shall include provisions for removal of all structures and foundations, restoration of soil and vegetation and a plan ensuring financial resources will be available to decommission the site. The Board may require the posting of a bond, letter of credit or the establishment of an escrow account to ensure proper decommissioning.

603. F Compliance with Other Regulations:

1. Zoning permit applications for solar farms shall be accompanied by a line drawing of electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the State's adopted electrical code and that has been pre-approved by the associated power district meeting their Distribution Generation Requirements and Guidelines; and

2. This subsection does not waive any requirements of any state or Federal codes, electrical codes or other technical codes as applicable.

603.G Discontinuation.

A solar farm shall be considered abandoned after one year without energy production. The property owner shall remove all solar farm equipment and appurtenances within 90 days of abandonment.