

**TILDEN TOWNSHIP  
BERKS COUNTY, PENNSYLVANIA**

**ORDINANCE NO. 252-2023**

**AN ORDINANCE OF THE TOWNSHIP OF TILDEN, BERKS COUNTY,  
PENNSYLVANIA, AMENDING THE ORDINANCES OF TILDEN TOWNSHIP BY  
ADDING TO CHAPTER 32, TITLED “ZONING ORDINANCE,” PART 17, TITLED  
“PERFORMANCE STANDARDS” AS SECTION 1733, TO BE TITLED “SOLAR  
ENERGY SYSTEMS AND FACILITIES,” ESTABLISHING SPECIFIC STANDARDS  
AND REGULATING PRINCIPAL AND ACCESSORY SOLAR ENERGY SYSTEMS  
WITHIN THE TOWNSHIP**

**SECTION 1.:** The Code of Ordinances of the Township of Tilden, Chapter 32, titled “Zoning Ordinance,” Part 17, titled “Performance Standards,” is hereby amended to add the following as Section 1733 titled “Solar Energy Systems and Facilities” as follows:

Section 1733. Solar Energy Systems and Facilities

**(a) Definitions:**

“Accessory Solar Energy System (ASES)” is an alternative energy system consisting of any solar collector, solar energy device, or any structural design feature mounted on a principal building, accessory building, or on the ground, and whose primary purpose is the collection of solar energy to generate electricity, or otherwise convert solar energy into mechanical energy for space heating or cooling, or for water heating for the primary purpose of reducing on-site consumption of purchased power.

“Agrovoltaics (a/k/a/ “Agrophotovoltaics” or “Agrisolar”): The simultaneous use of areas of land for both solar voltaic power generation and agriculture, including the growing of crops for food, clothing, or commercial or industrial use in the shade of solar panels.

“Glare” is the effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

“Principal Solar Energy System (PSES):” An alternative energy system consisting of ground mounted solar collection devices and solar energy related equipment to generate electricity or otherwise convert solar energy into mechanical or other forms of energy for the primary purpose of using the energy for commercial or other off-site use or a system existing solely to generate energy for sale back into the energy grid system, rather than being consumed on site.

“Solar Energy” means radiant energy (direct, diffuse and reflected) received from the sun.

“Solar Panels” – a structure containing one or more receptive cells, the purpose of which is to convert solar energy into useable electrical energy by way of a Solar Energy System.

“Solar array” – a group of photovoltaic solar panels or cells that convert sunlight into electricity, arranged and linked in such a way as to operate as a single unit. The term also refers to a similar set of reflecting mirrors used for directing and focusing sunlight onto such a group of photovoltaic units.

For terms not specifically defined herein, the definitions shall be those contained in the most recent Tilden Township Zoning Ordinance, as amended.

**(b) Applicability.**

(1) This ordinance applies to Accessory Solar Energy Systems and Principal Solar Energy Systems to be installed and constructed after the effective date of the ordinance, and all applications for Solar Energy Systems for erection on existing structures or property.

(2) Accessory or Principal Solar Energy Systems constructed prior to the effective date of this ordinance shall not be required to meet the requirements of this ordinance.

**(c) Classification.** This Ordinance shall prescribe the location and circumstances for the installation of all Solar Energy Systems and Facilities in the Township

(1) Accessory Solar Energy Systems (ASES) shall be a permitted use by right in any district, with the exception of the Open Space District and may be installed upon receipt of the necessary construction, electrical and/or mechanical permit(s). This ordinance applies to Solar Energy Systems to be installed and constructed for residential or commercial use as an accessory use to a primary residential or commercial use. Accessory Solar Energy Systems shall be added to Sections 302(l), 402, 502, 603(d), 702(b)(3), 8-102(a)(13), 8-202(a)(12), 902(c)(2), 1002(c)(2), 1103(l), 1302(j), and 1402(j), as a permitted use by right in accordance with the provisions of Section 1733 in each zoning district.

(2) Principal Solar Energy Systems shall be permitted as a Conditional Use only within the C-1, C-2, C-3, L-1, L-2, R-1, and R-2 Districts, subject to the standards set forth in this ordinance. Principal Solar Energy Systems shall be added to Sections 302(m), 402, 702(e), 8-102(f), 8-202(f)(16), 902(f), and 1002(g) as a use permitted by Conditional Use in accordance with the provisions of Section 1733 in each zoning district.

(3) Any upgrade, modification or structural change that materially alters the size or placement of an existing Solar Energy System shall comply with the provisions of this Ordinance.

**(d) Design and Installation for Accessory Solar Energy System.**

(1) An Accessory Solar Energy System may be roof-mounted, ground-mounted, or pole-mounted as set forth herein. A roof-mounted system may be installed on a principal or accessory building as defined by the Zoning Ordinance.

(2) The placement of all features and system components constituting the ASES shall comply with the principal building setback, height, lot coverage, and other bulk requirements of the applicable underlying zoning district. If this Section conflicts with a greater standard elsewhere in this Ordinance, the greater of the standards shall apply.

(3) No component of a ground-mounted system may be located within the front yard setback as specified for each Zoning District.

(4) An ASES shall provide power for the principal use of the Property on which it is located and shall not be used for the generation of power for the sale of energy to other users.

(5) ASES roof-mounted systems shall not extend beyond the roof edge in any direction, nor above the ridgeline of any slopes roof to which the system is attached. ASES roof-mounted systems on flat roofs shall not exceed twelve feet (12') in height.

(6) ASES ground mounted systems shall not exceed twelve feet (12') in height. Pole-mounted systems may not exceed the height requirement for an accessory building for the zoning district in which the system is to be located.

(7) The maximum permitted area, which is the combined surface area of all individual solar panels constituting the system, shall not exceed two thousand (2,000) square feet.

(8) For ground-mounted systems, all utilities, lines, cable, wires, plumbing pipes, and other connections of, to, or from the system and any related structure shall be at or below grade and placed in conduits.

(9) Any mechanical equipment associated with an ASES shall be screened from any adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of shrubbery, trees, or other plant materials, or an opaque fence that provides a visual screen. No mechanical equipment shall be located in the required front yard setback of the underlying zoning district, and all mechanical equipment shall be setback at least ten (10) feet from the rear and side property lines. If this Section conflicts with a greater standard elsewhere in this Ordinance, the greater of the standards shall apply.

(10) The system shall be installed in compliance with the most current building and construction code requirements adopted by the Township.

(11) ASES ground mounted systems shall be in compliance with the Tilden Township Stormwater Management Ordinance.

Note: Solar Panels are not to be considered impervious for stormwater management calculations. The calculations shall utilize the proposed cover type beneath the Solar Panels.

(12) The design, installation, and operation of any ASES shall comply with all applicable federal, state, and local laws and regulations, including but not limited to building, construction, fire and life safety requirements and conform to the applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), and other similar certifying organizations.

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

(14) ASES installers must certify they are listed as a certified installer on the PA Department of Environmental Protection's (DEP) approved solar installer list.

(15) An ASES shall not be used to display advertising, including signage, streamers, pennants, spinners, reflectors, ribbons, tinsel, balloons, flags, banners or similar materials. The manufacturer's or installer's identification and any appropriate warning signs and placards may be displayed on the system provided they comply with the Township's sign regulations.

(16) Decommissioning.

(a) Each ASES and all solar related equipment shall be removed within twelve (12) months of the date when the use has been discontinued or abandoned by system owner and/or operator, or upon termination of the useful life of same.

(b) The ASES shall be presumed to be discontinued or abandoned if no electricity is generated by such solar collector for a period of twelve (12) continuous months.

(c) Any location where a ground-mounted ASES is removed must be restored to its pre-development condition, including seeding and mulching.

(17) Waivers.

(a) Upon request, the municipality in a conditional use hearing may grant modification of the setback or height requirements, provided that the applicant can demonstrate specific site conditions that prevent him/her from complying with the setback and height requirements. Requests for modifications shall be made in writing to the Board of Supervisors.

(b) The municipality may take into consideration the support or opposition of adjacent property owners in granting modifications of setback or height requirements.

(18) Multiple Solar Energy Systems. In the event that a property owner seeks to install more than one roof mounted or ground mounted solar energy system, the second or subsequent apparatus shall follow the same process as stated above.

(19) Agrovoltatics is permitted in conjunction with an ASES beneath and in close proximity to the system.

**(e) Principal Solar Energy Systems (PSES)**

(1) The placement of all facilities and system components comprising the PSES shall comply with the dimensional, setback, and maximum lot coverage requirements of the district in which it is proposed.

(2) No PSES shall be located within one hundred feet (100') of a property line or the right-of-way of a public road and three hundred feet (300') from any residential building.

(3) The minimum lot size for installation of a PSES shall be five (5) acres.

(4) PSES ground-mounted systems shall not exceed sixteen (16) feet in height above the ground at maximum tilt. Buildings associated with the system shall comply with the maximum building height requirements of the district in which the system is to be located.

(5) A lot where a PSES is proposed to be constructed may contain an existing or proposed single-family dwelling. In this very specific case, the PSES shall be considered an accessory use; however, the regulations of subsection (e) shall apply.

(6) The PSES shall be enclosed with a chain-link fence at least eight (8') feet tall and having self-locking gates with a gap at the bottom to allow for passage of small wildlife of no more than eight inches (8") in height by eight inches (8") in width.

(7) Installation of a PSES shall require submission of a Land Development Plan to the Township that shall comply with all applicable sections of the Tilden Township Subdivision and Land Development Ordinance (SALDO).

(8) PSES shall be in compliance with the Tilden Township Stormwater Management Ordinance.

Note: Solar Panels are not to be considered impervious for stormwater management calculations. The calculations shall utilize the proposed cover type beneath the Solar Panels.

(9) Landscape screening shall be installed between the property line and required fence that abuts a residential district or use. Said screening shall include two staggered rows of

evergreen trees, a minimum of six (6') feet tall at the time of planting, placed fifteen (15') feet on center.

(10) Design, Installation, and Operational Regulations:

(i) It shall be the responsibility of the Owner of the system to design, install and operate any PSES in compliance with all applicable federal, state, and local laws and regulations.

(ii) The PSES shall have conspicuously and clearly labeled warning about voltage and other important electrical safety information upon all system components.

(iii) All panels shall have an anti-reflective coating--

(iv) On wooded lots, the maximum area that may be cut and cleared for the installation of a PSES is thirty percent (30%). Solar arrays shall not be located in FEMA-designated flood hazard areas, wetlands and wetland buffer areas, slopes in excess of 15% and prime agricultural land as described in USDA Soils Map.

(v) The noise level for any PSES facilities shall be in compliance with the restrictions of the Township Ordinance for the Zoning District in which the PSES facility is located, and battery storage, inverters, transformers, and other mechanical equipment associated with the PSES facilities shall be located near the middle of the array.

(vi) At a minimum, a twenty-four (24') feet wide access road must be provided from a state or township roadway into the site. The applicant shall be responsible for procuring any highway occupancy permits for access onto state highways required by the Pennsylvania Department of Transportation, or driveway permits from the Township for access onto Township roads. At a minimum, a twenty (20') foot wide cartway shall be provided between solar arrays to allow access for maintenance vehicles and emergency management vehicles including fire apparatus and emergency vehicles.

(11) Submission Requirements: An applicant proposing to construct and operate a PSES shall submit the following items to the Township:

(i) A Land Development Plan conforming with the requirements of the Tilden Township Subdivision and Land Development Ordinance (SALDO), Ordinance No. 27, which must be approved by Township officials.

(ii) A written project summary describing the project that shall include the system and any ancillary facilities; its approximate generating capacity, proposed locations, and the location of any new electric lines to and from the system and their off-site connection point(s) to the electric grid; the approximate number of panels to be

installed, their type, height or range of heights, orientation, dimensions, and manufacturers information;

(iii) A glare analysis report which shows that glare will not be projected onto any public street or any building on a property other than the property where the PSES is located.

(iv) Public Inquiries/Complaints– The facility operator is required to maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints through the life of the project. The facility operator is required to make reasonable effort to respond to the public’s inquiries and complaints.

(v) Decommissioning - Documents related to decommissioning, as more fully described herein below, including by not limited to executed agreement(s), such as a participating landowner agreement between the Township and PSES Owner, operator and/or landowner requiring such owner, operator, and/or landowner to obtain and post financial security for decommissioning as described herein below;

(vi) Grid Connection and Net Metering Policies –The local utility provider shall be contacted by the applicant to determine any grid connection and net metering policies and such information shall be provided to the Township,

(vii) Miscellaneous - Other relevant studies, reports, certifications, approvals, and agreements as may be reasonably requested by the Board of Supervisors to ensure compliance with this Ordinance, including but not limited to: an Operations Agreement to set forth operations and management parameters and policies, require continually updated/submitted contact information for the PSES owner/operator, and mandate inspection protocol and emergency procedures; and a Construction/Deconstruction Mitigation plan.

(12) Certifications and Inspections

(i) National and State Standards. The applicant shall place a statement on the plans submitted to the Township certifying that that all applicable manufacturers, Commonwealth of Pennsylvania and U.S. standards of the construction, operation, and maintenance of the proposed PSES have been/will be met.

(ii) No PSES shall commence operation until the Township has certified in writing that the conditions of this Ordinance have been satisfied and the PSES has been constructed and installed in accordance with the approved plans and specifications.

(13) Local Emergency Services. The applicant shall provide a copy of the project summary to the local fire companies and the Township’s fire safety consultant for their review and comment. Comments and recommendations from the above-mentioned individuals and/or entities shall be addressed by the applicant to the satisfaction of the Township in subsequent

plan reviews. Upon the Township's request, the applicant shall cooperate with emergency services to develop and coordinate implementation of an Emergency Response Plan for the PSES.

(14) Decommissioning

(i) The PSES owner and operator shall, at their expense, complete decommissioning of the PSES within six (6) months after the end of its useful life, or the useful life of the panels, whichever comes first. The PSES and panels are presumed no longer useful when either fails to generate electricity for a continuous period of six (6) months.

(ii) Decommissioning shall include removal of all panels, buildings, cabling, electrical, mechanical, and plumbing components, foundations, and any other associated facilities in their entirety whether above, on, or below ground. Stormwater facilities (BMPs) and healthy landscaping shall remain undisturbed.

(iii) Any earth disturbed during the removal of any components listed above shall be graded and re-seeded and mulched unless the landowner requests in writing that access roads or other land surface areas not be restored.

(iv) An independent, certified professional engineer licensed to practice in the Commonwealth of Pennsylvania shall be retained to estimate the total cost of decommissioning (decommissioning costs), without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment (net decommissioning costs). Said estimate shall be submitted to the Township prior to final approval of the Land Development Plan, after the first year of operation and every fifth year thereafter.

(v) The PSES owner or operator shall post and maintain Financial Security for Decommissioning in an amount equal to Net Decommissioning Costs (the "Financial Security for Decommissioning") before, or simultaneously with the Township's final approval of the Land Development Plan. At no point thereafter shall the Financial Security for Decommissioning be no less than twenty-five percent (25%) of Decommissioning Costs. The funds for the Financial Security for Decommissioning shall be posted and maintained with a bonding company, or Federal or Commonwealth chartered lending institution chosen by the PSES owner, operator, or participating landowner posting the financial security, provided that the bonding company or lending institution is authorized to conduct such business with the Commonwealth, and is approved by the Township.

(vi) The Financial Security for Decommissioning may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance that may be acceptable to the Township



(vii) If the PSES owner or operator fails to complete decommissioning with the prescribed period, then the landowner shall have six (6) months to complete decommissioning.

(viii) If neither the owner, operator, nor the landowner complete decommissioning with the herein prescribed periods, then the Township may take such measures as necessary to complete decommissioning through the use of the Financial Security for Decommissioning provided by the PSES owner or operator. The entry into and submission of evidence of a Participating Landowner Agreement to the Township shall constitute consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning plan at the sole expense of the PSES owner, operator and landowner.

(ix) The escrow agent shall only release the Financial Security for Decommissioning to the PSES Owner or operator when such individual(s) demonstrate, and the Township concurs, that decommissioning has been satisfactorily completed, or upon written approval of the municipality in order to implement the decommissioning plan.

(15) Agrovoltaics. Agrovoltaics are permitted in conjunction with a PSES beneath and in close proximity to the system subject to the following:

(i) Only shade tolerant crops may be used.

(ii) Crops must not be tilled in.

(iii) A written erosion and sedimentation control plan must be developed for agricultural plowing or tilling activities or a portion of the overall farm conservation plan must identify BMPs used.

(iv) Any cutting or mowing of the agricultural crop is limited to a height of not less than 4".

(v) Application of chemical fertilizers or herbicides/pesticides is limited to the agronomic needs of the crop.

**(f) Easements.** On new site development plans that propose to provide for Solar Energy Systems, the governing body of the municipality shall require, prior to the approval of the plan, a notation on the plan of any restrictions and/or easements have been placed on the lots in question concerning the placement of structures and vegetation, and access by third parties for purposes of maintenance as they related to the proposed Solar Energy System.

**(g) Zoning Permit.** A zoning permit shall be required prior to commencement of construction of any Solar Energy System. All zoning permits issued for a Solar Energy System shall contain the following statement:

The issuance of this permit by Tilden Township does not create any right to remain free of shadows and/or obstructions caused by development of adjacent or adjoining properties or growth of trees or vegetation on such properties. It is the sole responsibility of the Solar Energy System owner to obtain any solar easement necessary to guarantee unobstructed solar access by agreement with adjacent property owners. This limitation runs with the land and is binding on all successors and assigns.

**SECTION 2. Severability.** In the event that any provision, section, sentence, clause, or part of this Ordinance is held to be invalid, such invalidity shall not affect nor impair any remaining provision, section, sentence, clause, or part of the Ordinance, it being the intent of the Board of Supervisors or Tilden Township that such remainder shall be and shall remain in full force and effect and for this purpose the provisions of this Ordinance are hereby declared to be severable.

**SECTION 3. Repealer.** The Ordinances of Tilden Township, Berks County, Pennsylvania, shall be and remain unchanged and in full force and effect except as amended, supplemented or modified by this Ordinance. This Ordinance shall become a part of the Code of Ordinances of Tilden Township, Berks County, Pennsylvania, upon adoption. All ordinances or parts of ordinances of the Township which are inconstant herewith, are hereby repealed.

**SECTION 4. Effective Date.** This Ordinance shall take effect and be in force after its enactment by the Board of Supervisors as provided by law.

**ORDAINED AND ENACTED** as an Ordinance by the Board of Supervisors of the Township of Tilden, Berks County, Pennsylvania, in lawful session duly assembled this 9<sup>th</sup> day of August, 2023.

TOWNSHIP OF TILDEN, BERKS COUNTY  
PENNSYLVANIA

By: Gene S. Schappell

Gene Schappell, Chairman

Fred Herman

Fred Herman, Vice Chair

Richard DeLong

Richard DeLong, Supervisor

ATTEST:

Monica Flower

Monica Flower, Secretary