

TOWNSHIP OF FRANKLIN
GLOUCESTER COUNTY, NEW JERSEY

O-11-22

**ORDINANCE OF THE TOWNSHIP OF FRANKLIN, COUNTY OF
GLOUCESTER, AND STATE OF NEW JERSEY,
AMENDING CHAPTER 253-83 ENERGY CONSERVATION OF
THE CODE OF THE TOWNSHIP OF FRANKLIN**

WHEREAS, Chapter 253 of the Code of the Township of Franklin, entitled “LAND DEVELOPMENT,” promotes orderly development, limits congestion on streets, protects against hazards, regulates intensity of use, regulates location of buildings, establishes standards of development, encourages good aesthetics, prohibits incompatible uses, regulates alterations of existing buildings, conserves taxable value of land and implements the Master Plan of the Township; and

WHEREAS, Article VIII, Chapter 253-86 establishes Energy Conservation within the Township of Franklin; and

WHEREAS, the Township of Franklin supports Energy Conservation uses in all areas of the Township; and

WHEREAS, pursuant to N.J.S.A. 40:48-2, the Governing Body is authorized to enact and amend ordinances as deemed necessary for the preservation of the public health, safety and welfare and as may be necessary to carry into effect the powers and duties conferred and imposed upon the Township by law; and

WHEREAS, it has come to the attention of the Township that certain sections of Article VIII, Chapter 253-86 needs to be amended in order to to include Solar Energy Systems.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Township Committee of the Township of Franklin, County of Gloucester and State of New Jersey, as follows:

SECTION 1

§253-83-1 - Residential Solar Energy Systems

A. **Residential Solar Energy Systems** shall be permitted as an accessory use to a Single-Family Dwelling on residentially zoned properties throughout the Township of Franklin as governed pursuant to the terms of this Chapter to be incorporated into the Township’s Land Use Code, 253-83.

B. **Definitions.** The following definitions shall govern small wind and solar energy systems in the Township of Franklin.

Solar Panel. A structure containing one or more receptive cells or collector devices, the purpose of which is to use solar radiation to create usable electrical energy.

Solar Energy System. One or more solar panels and all associated equipment involved in the conversion of solar radiation to electrical energy which functions as the only principal use on the land on which such system is situated, said land constituting ten or more acres in size.

Solar Panels. A structure containing one or more receptive cells, the purpose of which is to convert solar energy into usable electrical energy by way of a solar energy system.

C. **Generally applicable standards**

1. The primary purpose of a solar panel energy system will be to provide power

for the principal use of the property whereon said system is to be located and shall not be for the generation of power for commercial purposes, although this provision shall not be interpreted to prohibit the sale of excess power generated from time-to-time from a wind or solar energy system designed to meet the energy needs of the principal use. For the purposes of this section, the sale of excess power shall be limited so that in no event an energy system is generating more energy for sale than what is otherwise necessary to power the principal use on the property.

2. Solar energy systems shall only be permitted as an accessory use on the same lot as the principal use. All energy systems require approval from the Zoning Officer and Building Department prior to installation. Applications for an energy system shall include information demonstrating compliance with the provisions of this section. In the event that the Zoning Officer or Building Department does not believe the provisions of this section will be satisfied, an applicant may request a variance.

D. Permitted as an accessory use to residential property as an accessory to a single-family dwelling.

1. **Rooftop Solar energy Systems.** Solar panels shall be permitted as a rooftop installation in any zoning district, in accordance with the following: the solar panels shall not exceed a height of 12 inches or overhang from the rooftop. In no event shall the placement of the solar panels result in a total height, including building and panels, then what is permitted in the zoning district where they are located for the principal or accessory building.

E. Conditional use to residential property as an accessory to a single-family dwelling.

1. Ground Mount Solar Energy System.

- a) Solar panels shall be located so that any glare is directed away from an adjoining property, or the applicant must provide evidence that the solar panels do not emit glare.
- b) Solar panels shall be permitted as ground arrays in any residential zoning district in accordance with the following:
 - 1) Minimum lot size: three acres.
 - 2) All ground arrays shall be set back a distance of fifty (50) feet from all property lines. A fifty (50) foot wide densely planted perimeter landscaped buffer that includes a combination of evergreen trees and shrubs.
 - 3) Ground arrays shall not be permitted in a front yard.
 - 4) Ground arrays shall not exceed a height of eight feet.
 - 5) Exposed hardware, supporting structures, frames and piping shall be finished in nonreflective surfaces.
- c) Noise. All residential solar energy systems shall comply with the following:
 - 1) Between a residential use or zone sound levels of the solar energy system shall not exceed 35 dBA at a common property line or 30 dBA to the closest occupied structure.
 - 2) In all other cases at a common property line, sound levels of the solar energy system shall not exceed 45 dBA.

§253-83-2 – Commercial Solar Energy Systems

A. Solar energy Systems shall be a Conditional Permitted Use, subject to meeting all of the following requirements:

1. **Site plan required.** A site plan shall be submitted for review and approval showing all elements of the proposed facility as required herein and complying with all of the checklist requirements for submission of a site plan in the IC Industrial Commercial Zone.
2. **Locational/site qualification regulations for a solar energy facility.**
 - a) The site proposed for a solar energy facility shall have a minimum lot area of at least 5 contiguous acres and a maximum of 20 contiguous acres that are owned by the same person or entity and shall otherwise comply with the lot width, lot depth and other dimensional requirements of the zoning district.
 - b) Except pursuant to a permit issued by NJDEP, no portion of such facility shall occupy any area of land designated and regulated by NJDEP as floodplain, flood hazard area, wetlands, wetlands transition area or riparian corridor. An applicability determination from the NJDEP shall be provided as a condition of approval to document the presence and/or absence of these regulated areas at the time a site plan is submitted. This applicant shall also maintain the minimum required riparian buffer along any C-1 waterway in accordance with the Surface Water Quality Standards rules at N.J.A.C. 7:9B-1.4, even if the riparian buffer area was previously disturbed for agricultural purposes.
 - c) Such facilities shall not occupy areas of land designed by the NJDEP as critical habitat for State threatened and/or endangered species of flora and fauna. Moreover, no land having slopes over 30% shall be occupied by such facilities.
 - d) Woodlands shall not be clear cut to accommodate such facilities. Any removal of more than ten (10) trees having a diameter in excess of 12 inches dbh (diameter at breast height) shall require replacement onsite of all but the first ten (10) trees.
 - e) An applicant seeking approval of a solar energy facility (major/commercial) shall provide documentation and evidence of a firm commitment from the electric utility that the alternative electrical energy to be generated by the solar and photovoltaic energy facilities and structures shall be purchased or utilized by an improvement onsite and/or purchased or utilized by the electricity utility provider.
3. **Bulk/buffering regulations.**
 - a) Such facility shall not occupy any area outside the required principal building setback lines for the zoning district in which the facility is to be located except that utility poles for outside connections to the electrical power grid may be placed outside the required principal building setback lines. A security fence is required around the entire perimeter of the facility. The security fencing shall be located within or at the required principal building setback lines; however, landscaping, buffering and berms may be located outside the required principal building setback lines.
 - b) The maximum building coverage limits for principal and accessory structures in this zoning district shall not apply to such facilities; provided, however, that all setback and buffering requirements of this

section and for this zoning district shall be met and further provided that no development shall be permitted to occur in any area of the lot in which development is prohibited by regulation of either this Township or the State of New Jersey.

- c) The maximum permitted vertical height about ground for the highest point of any ground-mounted solar and photovoltaic energy panels shall be ten (10) feet or fourteen (14) feet at the lower part of a grade if located on a slope.
- d) The minimum vegetated visual buffer width for such facility shall be the greater of fifty (50) feet or the minimum requirement for other uses in the same zone.
- e) Such facility shall be screened by topography and/or natural vegetation, supplemented by additional plantings as needed, or by berms and landscaping, from public traveled ways (public roads, navigable waterways, and publicly available trails on land owned by or held by easement of a public entity), residential buildings on an adjoining lot, open space owned by or subject to easement of a public entity, and historic sites and buildings listed in the State and/or National Registers of Historic Places.
 - 1) To the extent feasible, installations shall be sited behind existing vegetation, supplemented with landscaping, using berms and landscaping only where existing vegetation is nonexistent or sparse.
 - 2) The extent feasible, installations shall be sited where natural topography can provide or at least add screening.
 - 3) Berms shall be constructed with a width at base of at least twenty-five (25) feet to allow for proper growth of root structure and to lend a more natural appearance.
 - 4) Landscaping shall include an even blend mix of coniferous and deciduous trees and shrubs that are indigenous to the area avoiding invasive species. Such plantings shall be depicted on a plan, presented in and approved as part of the site plan, prepared by a licensed landscape architect. At the time of planting, deciduous trees shall be not less than two (2) inches to two and a half (2 ½) inches dbh and coniferous trees shall be a minimum of eight (8) feet to ten (10) feet in height or at least five (5) feet higher than the height of the highest solar or photovoltaic panel.
 - 5) All ground areas of the lot occupied by the facility that are not utilized for access to operate and maintain the installation, for berms and landscaping, for existing additional principal uses on the lot, or for agricultural uses, or that will remain forested, shall be planted and maintained with shade tolerant grasses for the purpose of soil stabilization. A seed mixture of native, noninvasive shade-tolerant grasses shall be utilized and specified in the landscaping plan. If it can be demonstrated by the applicant that an alternative vegetative ground cover consisting of a seed mix of native, noninvasive plant species and nonnative, noninvasive shade-tolerant species is acceptable for soil erosion control and soil stabilization and can be better sustained over the life of the facility, the approving authority may approve such an alternative to the requirement for native, noninvasive shade-tolerant grass mix. The use of stone, gravel, wood chips or shavings or any artificial material shall not be permitted for soil erosion control and soil stabilization. If land

having a slope of greater than twenty percent (20%) is proposed to be disturbed, additional soil erosion and sediment control measures may need to be implemented, and shall be subject to approval, based upon the recommendations of the Township Engineer.

- 6) A maintenance plan shall be submitted for approval as part of the site plan that provides for the continuing maintenance of all required plantings, including a schedule of specific maintenance activities to be conducted. Maintenance of the required berms and landscaping shall be a continuing condition of any approval that may be granted. The use of herbicides shall not be permitted as an acceptable maintenance practice.

4. **Installation and site development requirements.**

- a) Only nonglare glass shall be used to minimize the potential for reflective glare.
- b) No portion of the facility or its component parts shall be used for displaying any advertising. Signage shall be limited to the identification and safety signage permitted elsewhere in this section.
- c) All new distribution or transmission power lines on site shall be placed underground except as necessary to connect to already existing aboveground power towers, poles and lines. Feeder lines and collection lines may be placed overhead near substations or points of interconnection to the electric grid.
- d) No soil shall be removed from any site upon which such a facility is constructed. Necessary grading shall be accomplished so that no offsite soil removal or offsite fill is required.
- e) Land disturbance, grading and the construction of site improvements associated with the installation of such a facility, on any lot that has been and will continue to be used for agricultural purposes, shall be directed, insofar as is feasible, to portions of the lot that contain neither prime agricultural soils nor soils of statewide significance. Where land disturbance, grading or the construction of site improvements on such soils are unavoidable, it shall be limited to the minimum intrusion necessary to construct required access roads, inverter and switching equipment pads and other facilities required for connection to the grid.
- f) A barrier or fence having a height of at least eight (8) feet (unless a greater height is required by law) shall be installed around the entire perimeter of the installation and entirely within the required building setback lines, which barrier shall secure the facility at all times; restrict access to all electrical wiring, transformers and high voltage equipment; and comply with applicable Uniform Construction Code requirements. One or more locked access gates (not less than twenty (20) feet in width) to the facility shall be provided. Each locked access gate shall include a sign identifying the responsible parties for operation of the major solar and photovoltaic energy facilities and structures; for maintenance of the facility; and for maintenance of the berm, landscaping and security fence; and for ownership of the land upon which the facility is located.
- g) The site plan shall provide for adequate and appropriate drainage facilities, which shall be designed such that site grading and construction shall not alter the natural drainage patterns of stormwater originating both within and beyond the property boundaries, which is not inconsistent with Stormwater Management Regulations.

- h) The site plan shall include a construction/staging plan identifying the location, size and configuration of the areas to be used on a temporary basis during construction for the delivery and storage of materials and equipment and for the off-street parking of construction workers' vehicles. The construction/staging plan shall include a plan and timetable for the restoration for these areas upon completion of construction.

5. **Performance standards.**

- a) Wind velocities. All components of solar energy facilities (major/commercial) shall be designed to withstand a ground-level wind velocity of at least ninety (90) miles per hour, unless a higher standard for wind-loading is specified in the New Jersey Uniform Construction Code.
- b) Hazardous materials. The use of lead-acid batteries shall not be permitted in major solar energy systems (minor) and facilities, except for such batteries as are needed to store electricity to power emergency lights in the event of a power outage.
- c) Noise. The total daytime operational mechanical or aerodynamic noise, including turbine, inverter or transmission line noise from the solar energy facility shall not exceed fifty (50) dBA, measured from the nearest property line.

B. Commercial Solar Energy Projects must seek a use variance and site plan approval when they do not meet the above conditions and are not located in the IC Industrial Commercial Zone.

A site plan application for a solar energy system shall address, and not be limited to, buffering, care and maintenance of all property associated with the installation, security, visual impacts, drainage, traffic to and from the site.

Installations shall be subject to the following requirements.

1. The location of ground mounted arrays and free-standing collectors shall be setback a distance of one hundred fifty (150) feet from all property lines.
2. Ground mounted arrays shall not exceed twenty (20) feet in height when oriented at maximum tilt.
3. A fifty (50) foot wide densely planted perimeter landscaped buffer that includes a combination of evergreen trees and shrubs with a six (6) foot tall black vinyl-coated chain link fence located inside the landscape perimeter.

Plantings shall not be a lesser height than that of the solar array at time of plantings. No more than eighty percent (80%) of the total lot area shall be utilized for a solar energy system installation. To the extent reasonably possible, solar energy panels, regardless of how they are mounted, shall be oriented and/or screened year-round so that glare is directed away from adjoining properties and streets.

To the extent reasonably possible, solar energy systems shall be designed using such features as colors, materials, textures, screening and landscaping so as to blend into their settings and avoid visual blight.

The solar energy systems shall remain painted or finished in the color or finish that was originally applied by the manufacturer. The exterior surface of any visible components shall be non-reflective, neutral color like white, grey or another non-obtrusive color. Finishes shall be matte or non-reflective.

Solar energy systems shall not be used for the display of advertising.

C. Abandonment and Decommissioning.

1. Any application for Solar Energy Fields that have obtained a Site Plan Approval shall be required to post a decommissioning bond in the amount determined by the Township Engineer.
2. Abandonment is defined as the facility being out of service for a continuous twelve-month period.
3. Decommission Process Description.
 - a) The decommissioning and restoration process comprise removal of above-ground structures; grading, to the extent necessary; restoration of topsoil (if needed) and seeding. The process of removing structures involves evaluating and categorizing all components and materials into categories of recondition and reuse, salvage, recycling and disposal. The Project consists of numerous materials that can be recycled, including steel, aluminum, glass, copper and plastics. In the interest of increased efficiency and minimal transportation impacts, components and material may be stored on-site until the bulk of similar components or materials are ready for transport. The components and material will be transported to the appropriate facilities for reconditioning, salvage, recycling, or disposal. Above-ground structures include the panels, racks, inverters, pads and any interconnection facilities located on the property. The above-ground structures and below -ground structures are collectively referred to herein as the "Project Components."
 - b) Temporary erosion and sedimentation control best management practices will be used during the decommissioning phase of the project. Control features will be regularly inspected during the decommissioning phase and removed at the end of the process.
4. Project Component Removal: Control cabinets, electronic components, and internal cables will be removed. The panels, racks and inverters will be lowered to the ground where they may be transported whole for reconditioning and reuse or disassembled/cut into more easily transportable sections for salvageable, recyclable, or disposable components.
5. PV Module Removal: Solar photovoltaic modules used in the project are manufactured within regulatory requirements for toxicity based on Toxicity Characteristic Leaching Procedure (TCLP). The solar panels are not considered hazardous waste. The panels used in the Project will contain silicon, glass, and aluminum which have value for recycling. Modules will be dismantled and packaged per manufacturer or approved recyclers specifications and shipped to an approved off-site recycler.
6. Component Pad Removal: Pads will be excavated to a depth sufficient to remove all anchor bolts, rebar, conduits, cable, and concrete to a depth of 24 inches below grade. The remaining excavation will be filled with clear subgrade material of quality comparable to the immediate surrounding area. The sub-grade material will be compacted to a density similar to surrounding subgrade material. All unexcavated areas compacted by equipment used in decommissioning shall be de-compacted in a manner to adequately restore the topsoil and sub-grade material to the proper density consistent and compatible with the surrounding area.
7. Electric Wire Removal: DC wiring can be removed manually from the panels to the inverter. Underground wire in the array will be pulled and removed from the ground. Overhead cabling for the interconnection will be removed from poles. All wire will be sent to an approved recycling facility.
8. Racking and Fencing removal: All racking and fencing material will be

broken down into manageable units and removed from the facility and sent to an approved recycler. All racking posts driven into the ground will be pulled and removed.

9. Concrete Slab Removal: Concrete slabs used as equipment pads will be broken and removed to a depth of two feet below grade. Clean concrete will be crushed and disposed of off-site.
10. Access Road: During decommissioning, the processed stone access roads will be stripped, exposing the geotextile beneath. The geotextile will then be removed and disposed revealing the original soil surface. The compacted soil beneath the road fill may require ripping with a subsoiler plow to loosen it before it can be returned to crop production.
11. Site Restoration Process Description: Following decommissioning activities, the sub-grade material and topsoil from affected areas will be de-compacted and restored to a density and depth consistent with the surrounding areas. If the subsequent use for the project site will involve agriculture, a deep till of the project site will be undertaken. The affected areas will be inspected, thoroughly cleaned, and all construction-related debris removed. Disturbed areas will be reseeded to promote re-vegetation of the area unless the area is to be immediately redeveloped. In all areas restoration shall include, as reasonably required, leveling, terracing, mulching, and other necessary steps to prevent soil erosion, to ensure establishment of suitable grasses and forbs, and to control noxious weeds and pests.
12. Decommissioning Terms: The project shall be decommissioned within 180 days of the end of the project's operational life. Areas disturbed during the decommissioning phase will be seeded with a drought-tolerant grass seed mix appropriate for the area unless such areas are being immediately redeveloped for other uses.
13. The decommissioning plan shall contain the following provisions:
 - a) Provisions for the removal of all components of the facility/system from the site and the full restoration of the site to its predevelopment condition insofar as is feasible; and the safe disposal of all components of the facility/system, including the recycling of all recoverable materials, consistent with prevailing best practices relating to the disposal and recycling of photovoltaic waste.
 - b) Provisions that the Township shall notify the land owner and owner/operator of the facility of the pending determination of abandonment and order proof of the resumption of energy generation to at least eighty percent (80%) of the facility's capacity ore removal of the facilities in accordance with the approved decommissioning plan, subject to the issuance of a demolition permit.
 - c) A provision that within sixty (60) days of service of the notice of abandonment, the land owner or facility operator shall apply for and obtain a demolition permit for the decommissioning in accordance with the decommissioning plan..
 - d) Provisions that, as a condition of site plan approval and prior to the issuance of any building permits, the land owner or operator of the facility shall obtain and submit to the township a performance bond or other agree upon secured funding in a form approved by the Township Attorney to ensure that the decommissioning plan provides financial assurance that there will be sufficient funds available for decommissioning and site restoration. Such bond shall be in an amount, as determined in detail by the Township Engineer, which shall be adequate to cover the estimated cost of such removal. The form of

such bond shall be approved by the Township Attorney. The bond shall not be subject to revocation or reduction prior to the completion of the work covered by the demolition permit and decommissioning plan and the full restoration of the site as required by the decommissioning plan. The decommissioning bond shall be reevaluated to reflect inflation every five (5) years from the start of operations which shall be defined as the date of issuance of the certificate of occupancy for the generation of power. Such reevaluation shall be submitted no fewer than thirty (30) days prior to the end of the five (5) year period by the owner/operator and/or landowner to the Township Attorney and Township Engineer for review and approval. If the anticipated cost of decommissioning increases by ten percent (10%) or more, the property owner or operator of the facility shall deposit additional funds into an escrow account or revise the bond or other surety to reflect the increased amount.

- e) Measures to provide for the protection of public health and safety and for protection of the environment and natural resources during both the removal and site restoration stages, as well as the schedule for the completion of all site restoration work in accordance with the decommissioning plan.
- f) Provisions that, if the performance bond described above, plus any supplemental funding that may have been provided by the owner/operator, is insufficient to fully implement the decommissioning plan or if the owner/operator fails to fully satisfy the obligations described herein, then the landowner shall be held responsible for any and all costs associated with the decommissioning to the extent that such costs are not covered by the performance bond and any supplementary funds provided by the owner/operator, if applicable.
- g) Provisions detailing the anticipated life of the project.
- h) The estimated cost of decommissioning in current dollars and an explanation of how the cost was determined, which shall be prepared by a professional engineer or contractor who has expertise in the removal of solar facilities. Salvage value shall not be considered when determining the estimated decommissioning cost.

D. Permit requirements.

- 1. Permit. A zoning permit and building permit shall be required for the installation of any solar energy system. In all zoning districts located within the Pinelands Area, a certificate of filing shall be obtained when required from the Pinelands Commission prior to the issuance of any zoning permit or building permit or to the installation of any solar energy system.

E. Violations.

- 1. It is unlawful for any person to construct, install, or operate any solar energy system that is not in compliance with this section. Energy systems not expressly approved in this ordinance require a use variance approval and site plan approval by the Zoning Board of Adjustment.
- 2. Existing solar energy systems installed prior to the adoption of this section are exempt from the requirements of this section, except for the provisions regarding abandonment.

F. Administration and enforcement.

- 1. This section shall be administered by the Zoning Officer, Construction Official or other official as designated.

2. The Zoning Officer, Construction Official or other official as designated may enter any property for which a permit has been issued under this section to conduct an inspection to determine whether the conditions stated in the permit have been met.
3. The Zoning Officer, Construction Official or other official as designated may issue orders to abate any violation of this section.
4. The Zoning Officer, Construction Official or other official as designated may issue a citation for any violation of this section.
5. The Zoning Officer, Construction Official or other official as designated may refer any violation

G. Penalties.

1. Any person who fails to comply with any provision of this section shall be subject to enforcement and penalties as stipulated in chapter and section of the appropriate zoning code.
2. Nothing in this section shall be construed to prevent the Zoning Officer/Land Use Administrative Officer of the Township of Franklin from using any lawful means to enforce this section.

SECTION 2. This Ordinance shall be in full force and effect from and after its adoption and any publication as required by law.

SECTION 3. All Ordinances or parts of Ordinances inconsistent herewith are repealed as to such inconsistencies.

SECTION 4. This Ordinance shall be referred to the Township Planning Board for review.

SECTION 5. Upon adoption of this Ordinance after public hearing thereon, the Township Clerk is further directed to publish notice of the passage thereof and to file a copy of this Ordinance with the County Planning Board, the Pinelands Commission and other agencies as required by law.

SECTION 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

SECTION 7. This Ordinance shall take effect upon final passage and publication according to law.

ATTEST:

TOWNSHIP OF FRANKLIN

Barbara Freijomil, Clerk

John Bruno, Mayor

CERTIFICATION

I, Barbara Freijomil, Clerk of the Township of Franklin, County of Gloucester, do here certify that the foregoing Ordinance was introduced at the Regular Meeting of the Township of Franklin held on April 26, 2022 and thereafter duly advertised in the legal newspaper of the Township at least seven (7) days prior to it being considered for final passage and

adoption at a subsequent meeting to be held on May 24, 2022 at which time any person interested therein will be given an opportunity to be heard.

Barbara Freijomil, Municipal Clerk

Introduced April 26, 2022

Name	Motion	Second	Yes	No	Abstain	Absent
Doyle						
Deegan						
Petsch-Wilson						
Flaim						
Bruno						

Adopted May 24, 2022

Name	Motion	Second	Yes	No	Abstain	Absent
Doyle						
Deegan						
Petsch-Wilson						
Flaim						
Bruno						