

OF TEWKSBURY  
ORDINANCE NO. 07-2014

AN ORDINANCE OF THE TOWNSHIP OF TEWKSBURY, COUNTY OF HUNTERDON, STATE OF NEW JERSEY TO AMEND AND SUPPLEMENT THE TOWNSHIP OF TEWKSBURY DEVELOPMENT REGULATIONS ORDINANCE, SPECIFICALLY ARTICLE II, "PURPOSES" TO ADD NEW SUBSECTION 'U'; ARTICLE III, "DEFINITIONS" TO ADD NEW DEFINITIONS TO SECTION 301, "WORDS AND TERMS DEFINED"; AND ARTICLE VII, "ZONING PROVISIONS" TO ADD "SOLAR OR PHOTOVOLTAIC ENERGY FACILITIES AND STRUCTURES" AS A NEW CATEGORY IN THE PERMITTED ACCESSORY USES FOR THE LAMINGTON DISTRICT, FARMLAND PRESERVATION DISTRICT, PIEDMONT DISTRICT, R-1.5 RESIDENTIAL DISTRICT, SOUTH OLDWICK RESIDENTIAL DISTRICT, VILLAGE RESIDENTIAL DISTRICT, VILLAGE RESIDENTIAL-1 DISTRICT, VILLAGE BUSINESS DISTRICT, VILLAGE OFFICE DISTRICT, RESEARCH OFFICE/MIXED USE DISTRICT, AND MINING DISTRICT; AND TO SUPPLEMENT § 725 "PROHIBITED USES" WITH A NEW CATEGORY TO PROHIBIT SOLAR OR PHOTOVOLTAIC ENERGY SYSTEMS DESIGNED TO PRODUCE FOR OFF-SITE ENERGY POWER CONSUMPTION; AND TO MODIFY SECTION 726, "ADDITIONAL ACCESSORY USE PROVISIONS" WITH NEW SUBSECTION 'C' TO BE ENTITLED "SOLAR OR PHOTOVOLTAIC ENERGY SYSTEMS" SETTING FORTH SPECIFIC ZONING AND REGULATORY STANDARDS FOR SAID ACCESSORY USES.

**WHEREAS**, the Tewksbury Township Committee is desirous of establishing existing ordinance provisions pertaining to the installation of solar or photovoltaic energy facilities and structures in a manner that serves the public interest and general goals and objectives of the Tewksbury Township Master Plan; and

**WHEREAS**, the Tewksbury Township Committee seeks to achieve uniformity and balance in the application of standards for the utilization of solar and photovoltaic energy facilities and structures with the Township's existing land use provisions pertaining to the maintenance of the Township's rural and historic community character, and the protection and retention of farmland, open space, agricultural uses, forests, streams and riparian corridors, steep slopes and natural resource lands including floodplains, wetlands and wetland transition areas; and

**WHEREAS**, the Township Committee acknowledges and recognizes that alternative energy systems development, particularly solar or photovoltaic energy systems, has gained currency in the current economic climate as landowners seek to augment the cost of electricity through on-site development of solar and photovoltaic energy facilities and structures and that local regulations are needed to allow for such facilities to be installed in as inconspicuous and unobtrusive a manner as reasonably possible while balancing the need for electricity with the wider community interest of preserving and promoting the rural and historical characteristics of the Township; and

**NOW, THEREFORE BE IT RESOLVED**, by the Township Committee of the Township of Tewksbury that of the Development Regulations Ordinance of the Township of Tewksbury shall be revised and amended to add a new clause regarding renewable energy sources to "Purposes" in Article II; to add new definitions for solar or photovoltaic energy system, solar panel, and net metering to "Words and Terms Defined" in Article III;

to supplement Article VII, "Zoning Provisions" to add "Solar and Photovoltaic Energy Systems" as a new category under the Permitted Accessory Uses for the Lamington District (§710), Farmland Preservation District (§710.1), Piedmont District (§710.2), R-1.5 Residential District (§711), South Oldwick Residential District (§714.1), Village Residential District (§715), Village Residential-1 District (§715.1), Village Business District (§716), Village Office District (§716.1), Research Office/Mixed Use District (§717), and Mining District (§718); to supplement § 725 "Prohibited Uses" with a new category to prohibit solar or photovoltaic energy systems designed to produce for off-site energy power consumption; and to create a new subsection C in §726 "Additional Accessory Use Provisions" to be entitled "Solar or Photovoltaic Energy Systems" setting forth specific zoning and regulatory standards for solar or photovoltaic energy systems as accessory uses.

### **Section 1**

Purpose Statement: The purpose of this Ordinance is to amend and supplement the Development Regulations Ordinance to regulate solar or photovoltaic energy facilities and structures.

### **Section 2**

Article II, § 200 entitled "Purpose" is hereby amended and supplemented by adding new subsection 'U':

To promote the conservation of energy through the use of planning policies and practices designed to reduce energy consumption and to provide for maximum utilization of renewable energy sources provided such utilization is accessory to and directly supportive of a use permitted by the Tewksbury Development Regulations Ordinance and further provided that such utilization will not undermine the intent and purposes of Tewksbury's Master Plan and Development Regulations Ordinance.

Article III, § 301, "Words and Terms Defined" is hereby amended and supplemented by adding the following new definitions as follows:

NET METERING - means, as defined in N.J.A.C. 14:8-1.2 as may be amended from time to time, - means a system of metering and billing for electricity in which the supplier/provider and/or the EDC:

1. Credits a customer-generator at the full retail rate for each kilowatt-hour produced by a class I renewable energy system installed on the customer-generator's side of the electric revenue meter, up to the total amount of electricity used by that customer during an annualized period determined under N.J.A.C. 14:5.3; and
2. Compensates the customer-generator at the end of the annualized period determined under N.J.A.C. 14:8-5.3 for any remaining credits, at a rate equal to the supplier/provider's avoided cost of wholesale power.

SOLAR PANEL – means an elevated panel or plate, or a canopy or array thereof, that captures and converts solar radiation to produce power, and includes flat plate, focusing solar collectors, or photovoltaic solar cells and excludes the base or foundation of the panel, plate, canopy, or array.

**SOLAR OR PHOTOVOLTAIC ENERGY SYSTEM** - means a system of solar or photovoltaic modules, panels or arrays for the production of electrical energy that:

- (1) (a) generates electrical power by converting solar radiation into electricity;  
(b) Is located on the power beneficiary's premises;  
(c) Is designed and intended primarily to offset part or all of the beneficiary's requirements for electric energy consumption on site; and  
(d) Is accessory to the beneficiary's principal use of the premises for other lawful purpose(s); and/or
- (2) Qualifies as a "net-metering" system as determined by the electric distribution retailer serving the area in which the property upon which the system is located.

### **Section 3**

Article VII, § 700 "Zoning Provisions," is hereby amended and supplemented, as follows:

1. § 710, "LT" Lamington District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  12. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Ground-mounted solar or photovoltaic energy systems.
2. § 710.1, "FP" Farmland Preservation District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  13. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Ground-mounted solar or photovoltaic energy systems.
3. § 710.2, "PM" Piedmont District, C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  12. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Ground-mounted solar or photovoltaic energy systems.
4. § 711, "R-1.5" Residential District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  6. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Ground-mounted solar or photovoltaic energy systems.

5. § 714.1, "SO" South Oldwick Residential District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  5. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Ground-mounted solar or photovoltaic energy systems
6. § 715, "VR" Village Residential District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  4. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
7. § 715.1, "VR-1" Village Residential-1 District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  4. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
8. § 716, "VB" Village Business District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  3. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
9. § 716.1, "VO" Village Office, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  3. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
10. § 717, "RO/MXD" Research Office/Mixed Use District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by adding the following new subsection, as follows:
  7. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
    - a. Roof mounted solar or photovoltaic energy systems.
    - b. Parking lot canopy mounted solar or photovoltaic energy systems for non-residential use.
    - c. Ground-mounted solar or photovoltaic energy systems.

11. § 718, "M" Mining District, Subsection C Permitted Accessory Uses, is hereby amended and supplemented by eliminating the term "none" and adding the following new subsection, as follows:

1. Solar and Photovoltaic Energy Systems in accordance with standards set forth in § 726 C, as established herein.
  - a. Roof mounted solar or photovoltaic energy systems.
  - b. Parking lot canopy mounted solar or photovoltaic energy systems for non-residential use.
  - c. Ground-mounted solar or photovoltaic energy systems.

#### **Section 4**

§ 726 "Additional Accessory Use Provisions" is hereby amended and supplemented by adding the new subsection 'C', entitled Solar or Photovoltaic Energy Systems, as follows:

#### **SOLAR OR PHOTOVOLTAIC ENERGY SYSTEMS**

- a. In order to maintain a desirable visual environment throughout Tewksbury by preserving and promoting the rural and historical characteristics of the Township, it is the intention of this section that the installation of solar or photovoltaic energy systems be installed in as inconspicuous and unobtrusive a manner as reasonably possible.
- b. Roof mounted solar or photovoltaic energy systems. Installation or construction of roof mounted solar/ or photovoltaic energy systems shall be subject to the following requirements:
  1. A roof mounted solar or photovoltaic energy system may not be placed on any lot which does not contain a permitted principal structure. A roof mounted system may be installed upon permitted principal and accessory buildings.
  2. A roof mounted solar or photovoltaic energy system shall serve only the lot where it is located. All supporting equipment, such as transformers, inverters, power line interconnections, etc. shall in the first instance be installed only in the rear yard area of any lot. The proposed location for all supporting equipment shall conform to the rear yard and side yard setback requirements for a principal permitted structure in the zone in which the property is located (and in no case shall be located in the front yard).
  3. Roof mounted solar or photovoltaic energy system panels shall not extend above the existing height of the roof, (1) more than 12" on structures with pitched roofs with 3% slope or greater, or (2) more than 24" on structures with flat roofs (flat roof shall be defined as a roof pitch less than 3% slope). Notwithstanding, roof mounted facilities shall not exceed the maximum building height in the zone district.
  4. All solar photovoltaic equipment shall be screened from public view, except for roof-mounted solar or photovoltaic panels as permitted herein, with one or a combination of the following: non-deciduous indigenous deer resistant plantings, fences, and/or walls and shall blend with the immediately surrounding area.

5. All supporting equipment shall not be any located closer than twenty feet (20) to any other building or structure.
  6. Electrical wiring extending between roof top mounted solar panel arrays, system transformers, inverters, and buildings shall be installed underground.
  7. Installations proposed within a municipally designated historic district or on a historic site shall be subject to the provisions of § 629. In addition, roof-mounted panels shall not be visible from any public right-of-way. Where, upon review by the Historic Preservation Commission, an applicant can demonstrate that roof mounted solar or photovoltaic energy system panels would be rendered ineffective with strict adherence to this provision, such as lack of southern exposure or structural appurtenances e.g. chimneys, dormers, etc. the use of solar shingles (photovoltaic shingles) or solar panels compatible in color to established roof materials may be installed with visibility to the public right-of-way.
- c. Parking lot roof canopy mounted solar or photovoltaic energy systems. Installation or construction of roof canopy mounted solar or photovoltaic energy systems shall be subject to the following requirements:
1. Site plan approval is required.
  2. An applicant for a parking lot roof canopy mounted solar or photovoltaic energy system shall obtain all permits required by the Uniform Construction Code.
  3. Parking lot roof canopy mounted solar photovoltaic energy systems may be constructed above existing parking spaces and shall conform to setback requirements for parking for the zone in which the system is to be located.
  4. The parking lot roof canopy mounted solar or photovoltaic energy system shall serve only the lot upon which it is located. All supporting equipment, such as transformers, inverters, power line interconnections, etc. shall only be placed in the rear or side yard and shall conform to the side and rear setback requirements for that zone.
  5. The proposed location for all supporting equipment shall conform to the rear yard and side yard setback requirements for an accessory building in the zone in which the property is located (and in no case shall be located in the front yard).
    - i. All supporting equipment shall be screened from public view, except for roof-mounted solar or photovoltaic panels as permitted herein, with one or a combination of the following: non-deciduous indigenous deer resistant plantings, fences, and/or walls which shall blend with the immediately surrounding area.
  6. Electrical wiring extending between solar panel arrays, system transformers, inverters, and buildings shall be installed underground.
    - i. A power disconnect and system shut-down device accessible to emergency services personnel shall be installed and marked conspicuously with a sign, which shall identify an emergency contact person and an emergency contact telephone number. The property owner shall provide annual training to local emergency first responders on power disconnect and system shut-down procedures that may be required in the case of an emergency. System diagrams shall be provided to first responders and updated annually.

7. Installations proposed within a designated historic district or on a historic site shall be subject to the provisions of Section 629.
  8. Facilities mounted above parking lots shall be designed to provide adequate space for access by emergency vehicles whenever necessary.
- d. Ground-mounted solar or photovoltaic energy systems. Ground-mounted solar or photovoltaic energy system shall be subject to the following requirements, which shall be documented by the applicant prior to the issuance of a construction permit:
1. Accessory to principal permitted use.
    - i. A ground-mounted solar or photovoltaic energy system shall not be constructed on any lot which does not contain a permitted principal structure.
    - ii. A ground-mounted solar or photovoltaic energy system shall serve only the permitted principal structure and permitted accessory buildings located on the tax lot upon which the energy system is located.
    - iii.
  2. Nonresidential and commercial agricultural ground mounted solar or photovoltaic energy systems shall require site plan approval.
  3. Issuance of a construction permit. An applicant for a ground-mounted solar or photovoltaic energy system permit shall obtain a Zoning Permit and all permits required by the Uniform Construction Code (UCC).
  4. Access. No new driveway access shall be created. Access shall be provided utilizing existing driveways. Any interior access road required between and among ground-mounted solar or photovoltaic energy system arrays and components shall be designed as grassed roadways to minimize the extent of soil disturbance, water runoff and soil compaction.
  5. Maximum height. The maximum height of solar panel arrays and system components from existing ground level shall not exceed six feet (6).
  6. Yard placement & visual buffering. All components of a ground-mounted solar or photovoltaic energy system (solar panel arrays, supporting equipment including transformers, inverters, electric utility line connections, etc.) shall be installed only in the rear yard area and shall not be located closer to the side property line than the existing side yard setback of the principal building upon the lot, subject to the following visual compatibility, placement and design standards.
    - i. The ground mounted system and its components shall be shielded with landscape buffering from adjoining residences, preserved open space and farmland, the public traveled way, including public rights-of-way, roads and publicly accessible trails, and commonly traveled ways, such as, but not limited to bridle paths.
    - ii. Perimeter landscaped buffer. The ground-mounted system and its components shall be shielded from offsite view by the establishment of a landscaped buffer planted along the perimeter of the installation and

designed to blend with the immediately surrounding area. Buffer areas shall be graded and planted to visually screen the installation from adjoining residential property(s).

iii. Where existing features may effectively serve to shield portions of the installation and its components from view, such features may be substituted for portions of the required perimeter landscaped buffer. Such features include, but are not limited to:

(a) Existing hedgerows or forested areas, which may be supplemented with additional plantings to achieve year-round effective visual screening of the installation and its components;

(b) Existing buildings, such as barns, garages, greenhouses, outbuildings, etc,

(c) Existing topographic features or structures such as changes in elevation, ridgelines, retaining walls and similar features.

(d) Where any of the above features may be substituted for the required perimeter landscaped buffer, such features shall be maintained for as long as ground-mounted solar or photovoltaic energy system remains on site. Where such features may be removed over time by will or act of God, the required perimeter landscaped buffer shall be provided within either two (2) months of the removal of such features.

(e) Perimeter fence. A safety fence or suitable barrier shall be installed inside the perimeter landscaped buffer. The fence or barrier shall include a locked gate or other secure suitable means of access to the system.

7. Critical areas. No portion of a ground-mounted solar or photovoltaic energy system (solar panel arrays and supporting equipment such as, but not limited to transformers, inverters, power line interconnections, etc.) shall be located in a Critical Areas or Environmentally Sensitive Areas as defined in §301.
8. Solar panel array ground mounting. The use of concrete, asphalt or other impervious surface, including gravel, shall be limited to the location for the installation of the panels and ancillary equipment and the ancillary facilities for the panels, including but not limited to the base or foundation of the panel, plate, canopy, or array shall adhere to the applicable zone district lot coverage restrictions. Panels shall not be included in any calculation of impervious surface or impervious cover pursuant to N.J.S.A. 40:55D-38.1. The design of the facilities shall comply with all NJDEP and Township stormwater, grading and soil disturbance regulations, whichever is more restrictive.
9. Grading. The ground-mounted system and its components should be designed to follow the natural topography to the greatest extent possible to minimize the disturbance of soils. Grading and Surface Water Management Plan Ordinance approval may be required.
10. Soil erosion control, soil stabilization. All ground areas occupied by the ground-mounted solar or photovoltaic energy system shall be planted and



maintained with shade tolerant grasses for the purpose of soil stabilization. A seed mixture of native, non-invasive shade tolerant grasses shall be utilized to promote biodiversity and natural habitat.

11. Solar energy systems shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the system. In no case shall any identification be visible from the property line.
- e. Decommissioning, removal, restoration. All solar or photovoltaic energy systems shall be maintained in continuous operation.
1. Solar and photovoltaic energy facilities and structures (roof, parking lot roof canopy or ground) which have not been in active and continuous service for a period of twelve (12) months shall be decommissioned and removed from the property to a place of safe and legal disposal.
  2. Upon cessation of activity or abandonment, the energy system shall be decommissioned, all equipment removed and all areas disturbed to construct and operate the energy system shall be restored. The property owner shall obtain a demolition permit from the Township of Tewksbury construction official to decommission and remove the energy system and restore all areas disturbed to construct and operate the system.
  3. Removal of the system shall be conducted in conformance with UCC requirements.
  4. Solar energy system structures and equipment (including fencing) shall be removed and, where applicable, surface grade shall be restored.
  5. Where applicable, surface grade shall be re-vegetated with native seed mixes and or plant species suitable to the area, which shall not include any invasive species. Agricultural activities may be conducted in farmland areas.
  6. The lot owner shall document that system decommissioning, removal and restoration activities have been completed in accordance with the requirements of this section with a certification from Township code official(s).
  7. In the event that the owner fails to remove the solar energy facility, the Township and/or its employees and/or contractors may enter the property to remove the solar energy facility (but shall not be obligated to remove same) and, in the event that the Township performs the removal, all costs of such removal shall be reimbursed to the Township by the owner. In the event the owner fails to reimburse the Township, the Township may place a lien on the property in the amount of the costs of said removal and, in the event that the Township incurs any additional costs in enforcing the lien and/or collecting the money owed, the owner shall be obligated to reimburse the Township for the additional costs and expenses, including reasonable attorneys fees.

f. In addition to those items required for an application to be deemed complete, a site plan application including a solar or photovoltaic energy generating facility shall include the following:

1. Location of proposed and existing underground or overhead utility or transmission lines.
2. Location of any proposed or existing substation, inverter or transformer.
3. Description of any necessary upgrades or modifications to existing substations or the necessity for a new substation.
4. Description of how the energy generated by the facility will be connected to the electrical distribution or transmission facility or the electrical facility of the intended energy user.
5. Location of existing hedgerows and vegetated windbreaks. Trees on the site that have a caliper of 12" (dbh) or greater shall be identified by species and overall condition.
6. Photographic simulation of the view of the proposed facility from ground level from all public roads abutting the property and from adjacent residential uses.
7. Maintenance plan which describes the applicant's approach to maintaining the facility after construction, including the panels and associated supporting structures, as well as the property on which the facility is installed.

g. Safety and Emergency Provisions

1. Solar or photovoltaic roof, parking lot roof canopy and ground mounted systems servicing residential dwellings shall comply with the following safety and emergency response provisions:
  - a. All residential roof mounted systems shall be provided with adequate area on the roof for firefighters to ventilate all planes of the roof upon which solar panels are installed, as follows:
    - i. At least four (4) feet of clear area across the top of the roof along the ridge line and four (4) feet on both sides of the roof leading to the ridgeline shall remain clear of any solar or photovoltaic panels. Roofs with cross gable / valley shall provide four (4) feet clear of any panels, to allow firefighters access to the roof, which shall be provided as at least two (2) feet clear of panels on either side of the center of all valleys.
  - b. Residential solar or photovoltaic systems shall be fitted with a 'safety mode' system capable of switching off live DC current from the system in the event that fire or rescue services are required. Safety mode switching shall be readily accessible to and clearly marked for emergency response personnel operation.
  - c. Security fencing and gates shall be fully erected and operational prior to the installation of solar or photovoltaic energy facility installation.
  - d. An exterior electrical disconnect / emergency shutoff which de-energizes the system shall be provided, which shall be plainly marked with a reflective placard identification.

- e. Site labeling – Each site containing a solar or photovoltaic energy facility shall include a sign indicating that the energy facility exists on site, indicating whether the system is a roof or ground mounted system. Such sign shall be conspicuously mounted at the driveway entry to the site.
  - f. In accordance with the latest edition of the National Electrical Code update, all conduit extending between solar or photovoltaic panel arrays and inverters and transformers shall be marked every 10 feet to indicate electrical danger to firefighters and EMT personnel in the event conduit is accidentally or must be intentionally cut as part of emergency response.
  - g. Safety Data Sheets (SDS) shall be submitted to emergency response providers for all component materials comprising of the solar modules, panels, or arrays or other equipment which contain hazardous or flammable substances.
2. Solar or photovoltaic roof, parking lot roof canopy and ground mounted systems servicing non-residential uses shall comply with the following safety and emergency response provisions:
- a. Individual roof mounted solar or photovoltaic panel arrays shall not exceed 150' x 150' in area. Where more than one panel array is to be installed, 8' separation areas between panel arrays shall be provided such that adjacent panel arrays shall be located not less than 8' from adjacent panel arrays. Each 8' separation area shall be reinforced so as not to cause damage to the roof while maintenance is performed and to ensure that adequate support for firefighter access is provided in the event of an emergency. If skylights or roof hatches are installed in the roof, each skylight or roof hatch shall have a four (4) feet wide walkway leading to each and be clear of solar panels for four (4) feet in all directions.
  - b. Nonresidential roof installations shall provide ventilation access points in the roof, which shall be not less than eight (8) feet x four (4) feet, at intervals in the roof that are not less than 20' distant from each.
  - c. Ground mounted systems shall provide emergency vehicle access to all components and shall include access roads not less than twenty (20) feet in width, which shall be reinforced or suitably improved to support the weight of typical fire department apparatus. Turning areas shall be provided and each bend or turn in the access road shall provide an adequate turning radius for firefighting apparatus maneuvering.
    - i. Reinforced access roads shall extend to within 50' of all exterior doors, which provide access to the interior of a building.
    - ii. Where it can be demonstrated to the satisfaction of the Fire Company and First Aid and Rescue Squad that the access road is not required to extend to within 50' of a building, such distance may be increased in accordance with applicable building and fire access codes.

- d. An exterior electrical disconnect / emergency shutoff which de-energizes the system shall be provided, which shall be plainly marked with a reflective placard identification.
- e. Site labeling – Each site containing a solar or photovoltaic energy facility shall include a sign indicating that the energy facility exists on site, indicating whether the system is a roof or ground mounted system. Such sign shall be conspicuously mounted at the driveway entry to the site.
- f. In accordance with the latest edition of the National Electrical Code update, all conduit extending between solar or photovoltaic panel arrays and inverters and transformers shall be marked every 10 feet to indicate electrical danger to firefighters and EMT personnel in the event conduit is accidentally or must be intentionally cut as part of emergency response.
- g. Security fencing and gates shall be fully erected and operational prior to the installation of solar or photovoltaic energy facility installation.
- h. Knox Boxes shall be provided at all locked locations on site (i.e. gates, doors to buildings, etc.)
- i. Ground mounted facilities shall include at least two (2) means of ingress and egress for emergency response. In addition to any fire protection code requirements, all inverter sheds or other electrical equipment buildings shall be fitted with at least two (2) doors with one (1) 20lb CO2 fire extinguisher located immediately inside of each door.
- j. An emergency response plan shall be provided, filed and maintained with the appropriate Fire Companies and emergency squads which shall include site specific training to be provided by the owner of each facility on at least a bi-annual basis if requested by emergency providers. The emergency response plan shall include:
  - i. emergency response procedures to be followed in the event of an emergency, which shall include Fire Company and First Aid and Rescue Squad training, including training before planning an operation.
  - ii. evacuation procedures (on site and for off site neighboring properties and residents),
  - iii. site specific information concerning the location of panels, grid identification diagrams, contact names and numbers for 24/7 availability of contact personnel named,
  - iv. a system of information placards, which shall be conspicuously mounted at eye level, and which shall be updated within two (2) weeks of any changes to contact information, and which shall include information identifying all possible hazards and exit routes from the facility,
  - v. a two-tag identification system for anyone entering the energy facility site, which shall provide for the following procedures:

1. 1 tag shall be kept in the service vehicle indicating the name of the individual and his/her employer,
  2. 1 tag (the second tag) shall be placed at the point of entry of any building or in the case of site roaming service, the point of departure into the site. When roaming in the field, the tag shall be clipped to the gate nearest to the location where service will be performed.
- k. Site address – all sites shall secure a street address from the Township 911 Coordinator, which shall be posted at the main entrance gate to the facility.
- l. Safety Data Sheets (SDS) shall be submitted to emergency response providers for all component materials comprising of the solar modules, panels, or arrays or other equipment which contain hazardous or flammable substances.
- m. Prior to the issuance of a certificate of occupancy, the Fire Department(s) will be provided access to the solar facility to allow for review of existing conditions, their conformance with emergency access and allow for emergency responders to gain familiarity to the site.
- n. The use of lead-acid batteries shall not be permitted in non-residential solar energy systems and facilities. This prohibition shall not extend to residential solar or photovoltaic energy facilities.

Section §725 “Prohibited Uses,” is hereby amended and supplemented to add the following:

- A. Solar or photovoltaic energy systems that are designed for off-site electric power consumption.

### **Section 5**

Severability. The various parts, sections and clauses of this Ordinance are hereby declared to be severable. If any part, sentence, paragraph, section or clause is adjusted unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby.

### **Section 6**

Any ordinances or parts thereof in conflict with the provisions of this Ordinance are hereby repealed as to their inconsistencies only.

### **Section 7**

This Ordinance shall take effect immediately upon final adoption, publication, and publication of a notice for final adoption and the filing of same with the Hunterdon County Planning Board.

Attest

Township of Tewksbury Committee

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Roberta Brassard, Clerk

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Shaun Van Doren, Mayor