Borough of Teterboro
Ordinance No. 545

An Ordinance to Add an Article VII B to Chapter 185 of the Zoning Code Entitled "Solar Panels"

Be it ordained by the Governing Body of the Mayor and Borough Council of the Borough of Teterboro, County of Bergen and State of New Jersey, as follows:

185-19.10: DEFINITIONS

ACCESSORY SOLAR ENERGY SYSTEM: An area of land or other area used for a solar collection system used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for on-site use. An accessory solar energy system consists of one (1) or more free-standing ground, or roof mounted solar arrays or modules, or solar related equipment and is intended to primarily reduce on-site consumption of utility power or fuels.

GLARE: The effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

PRINCIPAL SOLAR ENERGY SYSTEM: An area of land or other area used for a solar collection system used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for off-site use. Principal solar energy systems consists of one (1) or more free-standing ground, or roof mounted solar arrays or modules, or solar related equipment and other accessory structures and buildings including light reflectors, concentrators, and heat exchangers, substations, electrical infrastructure, transmission lines and other appurtenant structures.

SOLAR EASEMENT: A solar easement means a right, expressed as an easement, restriction, covenant, or condition contained in any deed, contract, or other written instrument executed by or on behalf of any landowner for the purpose of assuring adequate access to direct sunlight for solar energy systems.

SOLAR ENERGY: Radiant energy (direct, diffuse and/reflective) received from the sun.

SOLAR PANEL: That part of portion of a solar energy system containing one or more receptive cells or modules, the purpose of which is to convert solar energy for use in space heating or cooling, for water heating and/or for electricity.

SOLAR RELATED EQUIPMENT: Items including a solar photovoltaic cell, module, panel, or array, or solar hot air or water collector device panels, lines,

pumps, batteries, mounting brackets, framing and possibly foundations or other structures used for or intended to be used for collection of solar energy.

1. SOLAR ARRAY: A grouping of multiple solar modules with purpose of harvesting solar energy.
2. SOLAR CELL: The smallest basic solar electrical device, which generates electricity when exposed to light.
3. SOLAR MODULE: A grouping of solar cells with the purpose of harvesting solar energy.

185-19.11: GENERAL REQUIREMENTS

1. Accessory Solar Energy Systems shall be permitted as a rooftop installation in any zoning district. The panels shall not exceed eight inches in height from the surface of a sloping roof pitched more than three inches in twelve inches, and shall not exceed the total height of a building by more than five feet. In no event shall the total height of the building with the Accessory Solar Energy Systems exceed the height limitations within the applicable zoning district or established by Federal Aviation Airport height standards and restrictions.
2. Accessory Solar Energy Systems shall be permitted as a ground mounted or wall mounted installation in the Light Industrial Zone only and shall not be more than 12 feet in height above the ground.
3. Ground solar arrays shall not emit glare onto adjoining property or onto adjoining roadways.
4. Ground arrays shall not exceed 50% of the principal building floor area.
5. Ground solar arrays shall not be used for advertisement, political or social statement. No signage of any type shall be permitted, with the exception of any mandated warnings required by the State building or fire code or any other standard.
6. All solar arrays shall be installed in accordance with the State of New Jersey adopted codes and regulations in effect at the time of installation, or the most recent version of the International Building Code.
7. Where a subdivision or land development involves the use of solar energy systems, solar easements may be provided. Said easement shall be in writing and shall be subject to the same conveyance and instrument recording requirements as other easements. A solar easement shall include:
    a. A description of the dimensions of the easement including vertical and horizontal angles measured in the degrees or the hours of the day, on specific dates, during which direct sunlight to a specified surface of structural design feature may not be obstructed.
    b. Restrictions on the placement of vegetation, structures, and other objects, which may impair or obstruct the passage of sunlight through the easement.

c. Enumerate terms and conditions, if any, under which the easement may be revised or terminated;
d. If required an Accessory Solar Energy System Owner and /or operator must obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreement(s) with adjacent property owner(s).

8. Prior to the issuance of any approval, or permit, applicants must acknowledge in writing that the issuing of said permit for a solar energy system shall not an does not create in the property owner, its, his, her, or their successors and assigns in title or, create in the property itself: (a) the right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or (b) the right to prohibit the development on or growth of any trees or vegetation on such property.
9. Decommissioning
    a. Each Accessory Solar Energy System and all solar related equipment shall be removed by the Owner of the property 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 Accessory Solar Energy Systems 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. The Accessory Solar Energy System owner shall, at the request of the Borough Official provide information concerning the amount of energy generated by the Accessory Solar Energy System in the last 12 months.
10. Permit requirements
    a. Site plan approval shall be required prior to the installation of any Accessory Solar Energy System.
        i. Applications shall document compliance with the Section an shall be accompanied by drawings showing the location of the system on the building or property, including property lines, and all required zoning data, schedules, and bulk requirements.
    b. Building permits shall be issued only after Site Plan approvals and other governmental prior approvals have been obtained by the property Owner.
    c. All approvals shall be in conformance with this Ordinance.
    d. The Accessory Solar Energy System must be properly maintained and be kept free from all hazards, including but not limited, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. In the event of a violation of any of the foregoing provisions, the Zoning Officer or Construction Official shall give written notice specifying the violation

to the Owner of the Accessory Solar Energy System to conform or to remove the violation under penalty of the law.

185-19.12: SETBACKS

1. The minimum yard setbacks from side and rear property lines shall be equivalent to the principal structure setback in the zone district.
2. A ground mounted Accessory Solar Energy System shall not be located in front yards or between the principal building and the public street.
3. A ground mounted Accessory Solar Energy System may be located in the portion of the yard in front of the principal building and outside of the required front yard set back provided that vegetative screening is provided.

185-19.13: HEIGHTS

1. Ground mounted Accessory Solar Energy Systems shall not exceed 12 feet in height above the ground elevation surrounding the systems.

185-19.14: COVERAGE

1. The area beneath the ground mounted Accessory Solar Energy System is considered pervious cover and shall be maintained as such. However, use of impervious construction materials under the system shall cause the area to be considered impervious and subject to the impervious coverage limitations for the underlying zoning district.
2. The area beneath the ground mounted Accessory Solar Energy System shall be maintained and subject to the property maintenance ordinance of the Borough of Teterboro.
3. The total surface are of the arrays of ground mounted Accessory Solar Energy Systems on the property shall not exceed more than 15% of the lot area or 50% of the principal building floor area.
4. The applicant shall submit a storm water management plan that demonstrates compliance with the Borough Engineers recommendations and/or the Borough storm water management regulations.

185-19.15: SCREENING

1. 1. Ground mounted Accessory Solar Energy Systems shall be screened from any adjacent property or public right of way in the following manner.
    a. Screening along front yards shall consist of double row evergreen planted material staggered 6'-0" on centers in front of or on top of earth berms. Behind the landscaped berm there shall be an additional decorative brick masonry wall constructed to a minimum height of 8'-0" above the grade along the front yard. A combination

of an earth berm and decorative brick masonry wall may be installed to achieve the minimum height of 8'-0" all along the front yard grade.

b. Screening along rear and side yards shall consist of single row evergreen planted material a minimum of 6'-0" high at time of installation spaced no more than 6'-0" on center of the appropriate species as approved by the Borough Engineer.
c. Where a property is adjacent to a residential zone, screening shall consist of a 15 foot wide buffer of plant materials with provide a visual screen or a solid decorative fence and 15' buffer.
d. Appropriate safety/warning signage concerning voltage shall be placed at ground mounted electrical devised, equipment, and structures. All electrical control devices associated with the Accessory Solar Energy System shall be locked to prevent unauthorized access or entry.
e. Ground mounted Accessory Solar Energy System shall not be placed within any legal easement or right-of-way location, or placed within any storm water conveyance system or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system.

185-19.16: PRINCIPAL SOLAR ENERGY SYSTEMS

1. Principal Solar Energy Systems shall be permitted by special exception as a conditional use in the Light Industrial zone.
2. Principal solar energy systems shall receive prior approval from the State of New Jersey and shall be subject to applicable industry safety standards including Underwriters Laboratories, American National Standards Institute, the American Society for Testing and Materials, Institute of Electrical and Electronics Engineers, Solar Rating and Certification Corporation, and other standards deemed to be appropriate by the authority having jurisdiction.
3. All on-site transmission and plumbing lines shall be placed underground to the extent feasible.
4. The Owner of a Principal Solar Energy System shall provide the Borough written confirmation from the State of New Jersey that the public utility company to which the Principal Solar Energy System will be connected has been informed of the customer's intent to install a grid connected system and approved of such connection .

185-19.17: GLARE

1. All Principal Solar Energy Systems shall be placed such that concentrated solar radiation or glare does not project onto nearby structures or roadways.

2. The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation.

185-19.18: NOISE

1. A noise study will be performed and included in the application. The noise study will be performed by an independent noise study expert and paid for by the applicant. Noise from a Principal Solar Energy System shall not exceed 45 dBA, as measured at the property line.
2. The Principal Solar Energy System owner and operator shall maintain a phone number and identify a person responsible for the public to contact with inquiries and complaints throughout the life of the project and provide this number and name to the Borough. The Principal Solar Energy System owner and / or operator shall make reasonable efforts to respond to the public's inquiries and complaints.

185-19.19: DECOMMISSIONING

1. Each Principal Solar Energy System and all solar related equipment shall be removed by the Owner of the property 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.
2. The Principal Solar Energy Systems 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. The owner of the Principal Solar Energy System shall then have (12) months in which to dismantle and remove the Principal Solar Energy System including all solar related equipment, buildings, cabling, electrical components, roads, foundations, and other associated facilities from the property. If the Owner fails to dismantle and/or remove the Principal Solar Energy System within the established timeframes, the Borough may complete the decommissioning at the owners expense.

Section 11: Prior to the issuance of any approval, or permit, applicants must acknowledge in writing that the issuing of said permit for a solar energy system shall not an does not create in the property owner, its, his, her, or their successors and assigns in title or, create in the property itself: (a) the right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or (b) the right to prohibit the development on or growth of any trees or vegetation on such property.

185-19.20: PERMIT REQUIREMENTS

1. Principal Solar Energy Systems shall comply with Borough subdivision and land development requirements. The installation of the Principal

Solar Energy System shall be in compliance with all applicable permit requirements, codes, and regulations.

2. The Principal Solar Energy Systems owner and / or operator shall repair, maintain and replace the Principal Solar Energy Systems and related solar equipment during the term of the permit in a manner consistent with industry standards as needed to keep the Principal Solar Energy System in good repair and operating condition.

185-19.21: GROUND MOUNTED PRINCIPAL SOLAR ENERGY SYSTEMS

1. Minimum lot size
    a. The Principal Solar Energy System shall meet the lot size requirements of the Light Industrial Zone district
2. Setbacks
    a. Principal Solar Energy Systems shall comply with all the setbacks of the Light Industrial Zone district for principal buildings and structures.
3. Height
    a. Ground mounted Principal Solar Energy Systems shall comply with all applicable building height restrictions in the Light Industrial Zone, but in no case shall they exceed 15'-0" in height.
4. Impervious Coverage
    a. The area beneath the ground mounted Principal Solar Energy System is considered pervious cover. However, use of impervious construction materials under the system shall cause the are to be considered impervious and subject to the impervious surfaces limitations for the Light Industrial Zone.
    b. The applicant shall submit a Storm Water Management Plan that demonstrates compliance with the Borough storm water management regulations, or the applicable standards required by the Borough Engineer.
5. Screening
    a. Ground mounted Principal Solar Energy Systems shall be screened from any adjacent property or public right of way in an approved manner.
    b. Screening along front yards shall consist of double row evergreen planted material of the appropriate size and species staggered 6'-0" on centers or by decorative masonry walls or by a combination of both as may be approved by the Borough Engineer.
    c. Screening along rear and side yards may consist of single row evergreen planted material of the appropriate size and species as approved by the Borough Engineer.
    d. Where a property is adjacent to a residential zone, screening shall consist of a 15 foot wide buffer of plant materials with provide a visual screen or a solid decorative fence and 15' buffer.

e. Appropriate safety/warning signage concerning voltage shall be placed at ground mounted electrical devised, equipment, and structures. All electrical control devices associated with the Accessory Solar Energy System shall be locked to prevent unauthorized access or entry.
f. Ground mounted Principal Solar Energy Systems shall not be placed within any legal easement or right-of-way location, or placed within any storm water conveyance system or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system.

6. Security
   a. All ground mounted Principal Solar Energy Systems shall be completely enclosed by a minimum eight(8) foot high fence with self locking gate.
   b. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence on the surrounding area warning of potential voltage hazards.
7. Access
   a. At a minimum, a 25' wide access road must be provided from a state, county, or local roadway into the site.
   b. At a minimum, a 20' wide cartway shall be provided between the solar arrays to allow access for maintenance vehicles and emergency management vehicles including fire apparatus and emergency vehicles. Cartway width is the distance between the bottom edge of a solar panel to the top edge of the solar panel directly across from it.
   c. The ground mounted Principal Solar Energy Systems shall not be artificially lighted except to the extent required for safety or applicable federal, state, or local authority.
   d. If a ground mounted Principal Solar Energy System is removed, any earth disturbance resulting from the removal must be graded and reseeded.
8. Roof and Wall mounted Principal Solar Energy Systems
   a. For roof and wall mounted systems, the applicant shall provide evidence that the plans comply with the Uniform Construction Code and adopted building code of the State of New Jersey and that the roof or wall is capable of holding the load imposed on the structure.
   b. Principal Solar Energy Systems mounted on the roof or wall of any building shall be subject to the maximum height regulations of the Light Industrial Zone.

185-19.16: SEVERABILITY

Each section, subsection, sentence, clause and phrase of this article is declared to be independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this article to be

unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this article.

185-19.17: REPEALER

All other ordinances of the Borough, or parts thereof, which are in conflict with this article are hereby repealed to the extent of such conflict.

185-19.20: EFFECTIVE DATE

This article shall be in full force and effect from and after its adoption and any publication as may be required by law.

APPROVED BY: JOHN P. WATT
MAYOR

ATTESTED BY: VIRGINIA A. ALCURI, RMC
MUNICIPAL CLERK

INTRODUCTION DATE: JANUARY 14, 2014

ADOPTION DATE: FEBRUARY 11, 2014