**ORDINANCE NO. 11-05**

**ORDINANCE OF THE TOWNSHIP OF WASHINGTON, COUNTY OF WARREN, STATE OF NEW JERSEY TO AMEND, REVISE AND SUPPLEMENT CHAPTER 123, "ZONING," OF THE CODE OF THE TOWNSHIP OF WASHINGTON TO CREATE A RENEWABLE ENERGY SECTION**

**WHEREAS**, the Committee of the Township of Washington, County of Warren, State of New Jersey, has determined that Chapter 123, "Zoning," of the Code of the Township of Washington shall be amended, revised and supplemented to create a renewable energy section.

**NOW, THEREFORE, BE IT ORDAINED** by the Committee of the Township of Washington, County of Warren, State of New Jersey that Chapter 123, "Zoning," of the Code of the Township of Washington shall be amended, revised and supplemented as follows:

**SECTION 1**

**§123-2. Definitions and word usage.**

"Renewable Energy Facility" (REF) shall mean a facility that engages in the production of electric energy from solar technologies, photovoltaic technologies, or wind energy.

"Rotor diameter" shall mean the cross sectional dimension of the circle swept by the rotating blades of a wind-powered energy generator.

"Solar Energy System and Solar Energy Facility" is a system and all associated equipment which converts solar energy into usable electrical energy, heats water, or produces hot air or similar function through the use of solar panels. This includes solar as well as photovoltaic technologies.

"Wind Energy System" shall mean a wind generator and all associated equipment, including any base, blade, foundation, nacelle, rotor, tower, transformer, vane, inverter, batteries or other component necessary to fully utilize the wind generator.

"Small Wind Energy System" shall mean a wind energy system that is used to generate electricity and has a nameplate capacity of 20 kilowatts or less or a system height of 150 feet or less.

"Large Wind Energy System" shall mean a wind energy system that is used to generate electricity and has a nameplate capacity of greater than 20 kilowatts or less or a system height greater than 150 feet.

"Wind Generator" shall mean equipment that converts energy from the wind into electricity. This term includes the rotor, blades and associated mechanism.

"Wind, solar or photovoltaic energy facility or structure" shall mean a facility or structure for the purpose of supplying electrical energy produced from wind, solar, or photovoltaic electrical energy produced or from wind, solar or photovoltaic technologies, whether such a facility or structure is a principal use, a part of the principal use, or an accessory use or structure.

**SECTION 2**

**§123-43. Renewable Energy Facilities (REF)**

A. General

1. Accessory use REF is to provide power for the principal use(s) of the property whereon said system is to be located.

2. For an Accessory use REF, the system shall not be for the generation of power for residential or commercial purposes in excess of that needed for the principal use; 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.

3. For an Accessory use REF, 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.

4. Wind renewable energy systems shall be permitted as a principal or accessory use on lots larger than 20 acres and located in industrial zones only and with requirements as provided herein.

5. Solar and photovoltaic systems are permitted in all zones. Systems are permitted to be ground mounted and roof-mounted, principal or accessory structures, with requirements as provided herein.

6. All energy systems require approval from the Zoning Officer and construction office prior to receiving a building permit. Applications for an energy system shall include information demonstrating compliance with the provisions of this ordinance. In the event that the zoning officer or construction office does not believe the provisions of this ordinance will be satisfied an applicant may request a variance.

7. Site Plan Required. Roof mounted solar energy systems, whether for residential or non-residential uses, shall not require a plan approval from the Board; however all residential ground mounted solar energy systems shall require plan review from the Board, with public notice; all ground mounted solar energy systems serving non-residential uses and all wind energy systems shall require site plan approval.

8. There shall be no signs posted on any Renewable Energy Facility or any associated building or structure, except for the manufacturer's or installer's identification, appropriate warning signs, or owner identification. No such signs shall be of a size which is able to be read from a public road or abutting property.

9. Wind energy systems and Principal use ground mounted solar energy systems in shall have the electrical and control equipment labeled and secured to prevent unauthorized access.

10. Any wind energy system shall be designed and installed so as not to provide ladder, step bolts, or other publically accessible means of climbing the tower, for a minimum height of eight feet above the ground.

11. All moving parts of the wind energy system shall be sufficiently raised above the ground to afford adequate safety.

12. All Renewable Energy Facilities requiring Board review shall submit a Decommissioning Plan.

13. Noise from all Renewable Energy Facilities shall comply with the following:

    b. Sound levels from the facility in or abutting a residential use or zone shall not exceed 40 dBA at a common property line during the daytime and 55 dBA at night.

    c. Sound levels from the facility in or abutting an industrial or commercial zone shall not exceed 65 dBA.

B. Roof Mounted Solar and Photovoltaic Facilities

1. Roof Mounted Systems shall not be permitted to have the support structure to be a height greater than twelve (12) inches above the roof unless the structure has a parapet which will screen the support structure.

2. The finished height of the roof mounted array may not exceed the maximum principal or accessory building height applicable for the zone district in which the property is located.

C. Ground Mounted Solar and Photovoltaic Systems

1. In no event shall more than 5% of the lot area be covered with a ground mounted system accessory use.

2. Ground Mounted Systems which exceed 5% of the lot area shall provide two times the minimum yard setback requirements for principal structures. However, in no case shall the setback be less than 40 feet.

3. Ground systems which cover 5% or less of the lot area shall provide two times the minimum yard setback requirements for accessory uses. However, in no case shall the setback be less than 30 feet.

4. No ground mounted system shall be placed in any front yard area.

5. Landscaping of the setback area shall be sufficient to achieve a visual screen of the array, to the greatest extent feasible. See Landscaping in Buffer Areas.

**SECTION 3**

**§123-44. Solar energy systems-**

A. Generation System-principal use.

1. Solar energy systems may be installed on lots of a minimum area of at least 20 acres.
2. Solar energy systems shall not be placed in any front yard or in any minimum front yard area.
3. Security. All inverters, transformers and such other system components that are designed to convert or modify electric current, or transmit electric flow to the transmission or distribution system, shall be secured by with of the following methods:

    a. Entirely contained within a structure, building secured with an operating lock; or
    b. Entirely contained within an area fenced with steel, including the area above the equipment, secured with an operating lock.

4. Required Setbacks
    a. Where the generation facility occupies two acres or less:
        - 300’ setback from an existing residence not on the property; and
        - 150’ from all property lines and rights of way.
        - Minimum Buffer width required is 100’. See Landscaping in Buffer areas for detailed requirements.
    b. Where the generation facility occupies more than two acres:
        - 350’ setback from an existing residence; and
        - 200 ‘from all property lines and rights of way.
        - Minimum buffer width required is 150’. See Landscaping in Buffer areas for detailed requirements.
5. Maximum height of ground mounted solar arrays is 20 feet.
6. Solar reflection. The energy generation facilities, structures and equipment shall be constructed to avoid solar reflection as much as practicable.

B. Requirements for all Ground Mounted Solar Energy Systems

1. Other than footings, which may be computed as impervious cover, systems shall not be counted in the calculation of maximum impervious cover, unless the area

under the equipment consists of an impervious material layer, such as pavement or stone.

2. The design of the ground mounted system shall comply with all Township storm water, grading, and soil disturbance regulations and the applicant shall take appropriate measures to prevent a concentrated flow of runoff.
3. Ground mounted systems shall provide one or more of the following beneath the structures: grasses or agricultural area for crops or grazing farm animals.
4. The height of the ground mounted solar or photovoltaic panels shall not exceed twenty (20) feet.
5. To the extent feasible, ground mounted solar energy systems and substations shall be screened from view. See Landscaping in Buffer Areas.
6. Site Plan approval is required for all ground mount systems which shall depict the following:
    a. Property lines and physical dimensions of the property by a licensed land surveyor.
    b. Locations, dimensions and use of all existing structures on the property
    c. Location of the solar or photovoltaic system and dimension to all property lines.
    d. Location of proposed and existing overhead utility lines.
    e. Location of any proposed or existing substation, inverter or transformer.
    f. Description and design of how the energy generated by the facility will be transmitted to the larger electrical distribution system.
    g. For projects over 20 kilowatts, the location and elevations and design details of all transmission lines, support structures and attachments to a substation(s).
    h. Decommissioning Plan
    i. Landscaping Plan

**SECTION 4**

**§ 123-45. Wind Energy Systems**

A. General

1. System height shall be defined as the height above grade of the tower plus the wind generator, including rotor diameter.
2. Tower height shall be defined as the height above grade of the fixed portion of the tower, excluding the wind generator and rotor diameter.
3. The tower shall be designed and installed so as not to provide step bolts, a ladder, or other publicly accessible means of climbing the tower, for a minimum height of eight feet above the ground.
4. The site plan application shall be accompanied by a plot plan which includes the information for site plans submission as well as the following:
    a. Written description of the system, describing the system's provisions as cited in the Purpose of the Renewable Energy Facility Ordinance, identified in this section
    b. Property lines and physical dimensions of the property;
    c. Location, dimensions, and types of existing structures on the property;
    d. Identification of whether lighting will be required by the Federal Aviation Administration (FAA).
    e. Location of the proposed wind energy system tower;
    f. The right-of-way of any public road that is contiguous with the property;
    g. Location of existing and proposed overhead utility lines;
    h. System specifications, including manufacturer and model, rotor diameter, system height, tower type (freestanding or guyed);
    i. Location of any proposed substation or transformer; and
    j. Description of how the energy generated by the facility will be transmitted to the larger electrical distribution system.

For large wind energy systems, the location and elevations of all transmission lines, support structures and attachments to a substation(s).

B. Large Wind Energy Systems

1. The minimum lot size shall be 20 contiguous acres and located in an industrial zone.
2. Unless otherwise stated, all buildings and structures shall comply with the standards of the zone district.
3. A wind tower and generator shall be set back a minimum distance of 150% of the system height from all property lines. However, the setback to a residential use or zone district shall conform to the above, but shall be no less than 200 feet
4. Notwithstanding setback requirements which are applicable, no large wind energy system shall be located in a front yard.
5. The wind energy system shall not be lighted unless required by the Federal Administration Aviation.
6. Substations shall be setback a minimum of 150 feet from a property line. However, the setback to a residential use or residential zone district shall be no less than 200 feet.
7. See Landscaping in Buffer Areas for additional requirements.
8. A wind energy system shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.
9. The wind generator and the tower shall be a neutral color that is appropriate for its location and will allow the tower to be as unobtrusive as possible, unless otherwise required by the FAA.

C. Small Wind Energy Systems requirements

1. Small wind energy systems that connect to the electric utility shall comply with the New Jersey's Net Metering and Interconnection Standards for Class I Renewable Energy Systems at N.J.A.C. 14:4-9
2. Wind energy systems shall be limited to one monopole for each 20 acres of land.
3. No wind tower shall be located on a property which is less than 6 acres in size and 500 feet in width.
4. A small wind energy system and generator for shall be set back from all property lines a minimum distance of 200% of the system height.
5. No wind tower in a residential zone shall be located in the front yard area.
6. No portion of the wind generator or turbine shall be set back at such a distance to be able to fall into a public right-of-way or across a property line.

7. A small wind energy system shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.

8. The wind generator and the tower shall be a neutral color that is appropriate for its location and will allow the tower to be as unobtrusive as possible, unless otherwise required by the FAA.

**SECTION 5**

**§ 123-46. Landscaping in buffer areas**

A. All landscaping, as installed, shall conform to and be in accordance with the plan approved and signed by the Board. Prior to the issuance of a permanent certificate of occupancy, completion or compliance (whichever is applicable) and prior to the release of any performance guarantee, the landscaping shall be installed and a two (2) year maintenance guarantee in a form acceptable to the Township Attorney shall be posted in an amount acceptable to Township Engineer. If the applicant applies for a certificate of occupancy during a non-planting season, the applicant may obtain a temporary certificate of occupancy without installation of the landscaping, but if the applicant posts a performance guarantee in a form acceptable to the governing body and in an amount acceptable to the Township Engineer guaranteeing installation of the landscaping during the next planting season and further guaranteeing the subsequent posting of a two (2) year maintenance guarantee. The applicant shall have a continuing obligation to maintain all landscaping for its intended purpose (i.e., for screening if planted for buffering purposes or for aesthetics if planted for enhancement purposes), which shall include but not be limited to repairing and/or replanting to the satisfaction of the Township Planner/Engineer any and all landscaping that becomes damaged and/or dies. (This continuing maintenance obligation is in addition to, and notwithstanding, the fact that a maintenance guarantee may or may not be required in any particular application.) In the event that Township Zoning Officer determines that utilization of an outside expert (e.g. landscape architectural expert) is necessary to fulfill the intent of this section, all reasonable costs and expenses of such outside experts shall be reimbursed to the Township by the applicant.

B. Where visual screening is feasible, landscape buffers must be sufficient to ensure 75% screening within 3 years and 100% screening within 5 years.

C. Wind energy systems and substations shall be screened from view as follows: A dense or impervious visual screen of a combination of plantings, fence and/or earthen berm shall be provided with a height of eight feet, with evergreen plantings 10 feet on center. A 50 foot wide landscape visual screen shall separate such equipment from property lines. Fencing will be permitted only where installation of a berm is not feasible.

D. For ground mount solar energy systems, a dense or impervious visual screen of a combination of plantings, or earthen berm shall be provided to be maintained at the design height of the ground mount support structure. A landscape or impervious visual screen shall separate such facilities from properties in and abutting residential zones and uses to the greatest extent feasible. Existing vegetation may be credited for buffer if it achieves a year-round visual screen. The width of the buffer is dependent upon the minimum required width needed to achieve visual screening.

E. Fencing may be required where deemed by the approving Board to be necessary for health, safety or welfare and where unique circumstances prevent a landscaped buffer.

**SECTION 6**

**§ 123-47. Abandonment and Decommissioning of a Renewable Energy Facility**

A. A Decommissioning Plan will be submitted, for approval by the municipal engineer, for all Renewable Energy Facilities that require Board review. This plan will outline the requirements below and assure that the facility will be dismantled and describe how the land will be returned to its natural state, including grading and vegetation. The Decommissioning Plan shall specify a time schedule to fully decommission the facility once there has been abandonment, but in no event shall exceed 180 days. A demolition permit shall be secured for decommissioning. A performance bond shall be posted to assure that the entire facility will be removed and the land will be restored.

1. A Renewable Energy Facility that is out-of-service for a continuous 12 - month period will be deemed to have been abandoned.
2. The Township may issue a Notice of Abandonment to the owner of a Renewable Energy Facility that is deemed to have been abandoned. The notice shall be sent return receipt requested, indicating that the owner must actively pursue the requirements of the Decommissioning of the facility.
3. The Owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date.
4. If the owner provides information that demonstrates the Renewable Energy Facility has not been abandoned, the Township shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn.
5. If the designated Township Official determines that the Renewable Energy Facility has been abandoned, the Owner of the wind energy system shall remove the Renewable Energy Facility at the Owner’s sole expense within

180 days after the Owner receives the Notice of Abandonment, in accordance with the Decommissioning plan, if a plan has been submitted.

B. In the event that the applicant fails to remove the Renewable Energy Facility, the Township and/or its employees and/or contractors may enter the property to remove the Renewable Energy Facility (but shall not be obligated to remove same) and, in the event that the Township performs the removal, all costs and expenses of such removal shall be reimbursed to the Township by the applicant. In the event the applicant fails to reimburse the Township, the Township may place a lien on the property in the amount of the costs and expenses of said removal and, in the event that the Township incurs any additional costs and expenses in enforcing the lien and/or collecting the money owed, the applicant shall be obligated to reimburse the Township for the additional costs and expenses, including reasonable attorney's fees

**SECTION 7**

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 adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder off this Ordinance shall not be affected thereby.

**SECTION 8**:

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

**SECTION 9**:

Effective Date. This Ordinance shall take effect upon final passage and publication as provided by law.

## NOTICE

**NOTICE** is hereby given that the foregoing Ordinance was introduced to pass on first reading at a regular meeting of the Committee of the Township of Washington held on February 15, 2011, and ordered published in accordance with the law. Said Ordinance will be considered for final reading and adoption at a regular meeting of the Township Committee to be held on March 15, 2011 or as soon thereafter as the Township Council may hear this Ordinance at the Municipal Building, 211 State Route 31 North, Washington, New Jersey 07882, at which time all persons interested may appear for or against the passage of said Ordinance.

Anna C. Godfrey
Acting Township Clerk