

ORDINANCE 11-18

INTRODUCTION DATE: 09-21-11

ADOPTION DATE: 10-19-2011

**AN ORDINANCE AMENDING AND SUPPLEMENTING CHAPTER XXXV
"LAND USE AND DEVELOPMENT REGULATIONS" OF THE REVISED
GENERAL ORDINANCES OF THE TOWNSHIP OF MILLSTONE COUNTY OF
MONMOUTH, STATE OF NEW JERSEY, BY AMENDING SECTION 4-9.3, "HEIGHT
RESTRICTIONS", BY ADDING A NEW 4-9.11, "BUILDING SIZE RESTRICTIONS",
AND BY AMENDING SECTION 4-9.8, "SOLAR COLLECTORS", IN ARTICLE 4,
"REGULATIONS APPLICABLE TO ALL ZONING DISTRICTS", AND SECTION 5-
13.1, "PERMITTED PRINCIPAL USES" IN THE "BP" BUSINESS PARK ZONE, IN
ARTICLE 5, "ZONING DISTRICT REGULATIONS", IN ORDER TO PROVIDE
REGULATIONS FOR "WIND, SOLAR & PHOTOVOLTAIC ENERGY FACILITIES"
WITHIN MILLSTONE TOWNSHIP**

WHEREAS, it is the purpose of this ordinance to promote the safe, effective and efficient use of solar and small wind energy systems to reduce the on-site consumption of utility-supplied electricity; and

WHEREAS, the Township Committee of the Township of Millstone has determined the following:

1. Solar and wind energy is an abundant, renewable, and nonpolluting energy resource.
2. Converting solar rays and wind to electricity will reduce our dependence on nonrenewable energy resources and decrease air and water pollution that results from the use of conventional energy sources.
3. Solar and small wind energy systems also enhance the reliability and quality of the power grid, reduce peak power demands, and help diversify the State's energy supply portfolio.
4. Solar and small wind energy systems make the electricity supply market more competitive by promoting customer choice; and

WHEREAS, New Jersey's Renewable Portfolio Standards (RPS) require each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey to provide a percentage of their retail electricity sales from renewable energy sources, i.e., 7.4 percent as of June 1, 2010 and increasing to 22.5 percent by June 1, 2021; and

WHEREAS, one of the stated purposes of the Municipal Land Use Law at N.J.S.A. 40:55D-2.n. is "to promote utilization of renewable energy sources"; and

WHEREAS, in accordance with P.L.2009, c.44 and P.L.2009, c.35, the Municipal Land Use Law sets forth certain standards to govern municipal ordinances regulating small wind energy systems at N.J.S.A. 40:55D-66.12, and further requires that both wind and solar facilities are to be permitted on industrially zoned lands comprising 20 or more contiguous acres that are owned by the same person or entity at N.J.S.A. 40:55D-66.11; and

WHEREAS, the Township Committee finds that it is necessary to establish standards for the installation and operation of solar and small wind energy systems and other photovoltaic systems so that this clean, renewable energy resource can be utilized in appropriate locations and in a cost-effective manner in the municipality in accordance with recognized safety standards, and without jeopardizing or being inconsistent with Millstone Township's accomplishments to preserve farmland and open space lands; and

WHEREAS, the Millstone Planning Board adopted a Master Plan on November 13, 2002 which states that one of the objectives of the Master Plan is "to promote the utilization of renewable energy resources"; therefore, the creation of an ordinance governing and reasonably limiting alternative energy sources is consistent with the Master Plan and promotes the goals and objectives of the plan.

BE IT ORDAINED BY THE TOWNSHIP COMMITTEE OF THE TOWNSHIP OF MILLSTONE in the County of Monmouth and the State of New Jersey, that Chapter XXXV, the "Land Use And Development Regulations" ordinance, Article 4, "Regulations Applicable To All Zoning Districts", and Article 5, "Zoning District Regulations", are hereby amended and supplemented as follows:

SECTION 1. Change the height restrictions for accessory buildings and structures in Section 4-9.3, "Height Restrictions", by eliminating the words "and may occupy no more than nine hundred (900) square feet of lot area" so that the section reads in its entirety as follows:

"4-9.3 Height Restrictions. Accessory buildings and structures on residential lots shall not exceed sixteen (16) feet in height. Buildings in excess of sixteen (16) feet in height, but less than twenty (20) feet, shall be permitted providing the Construction Official, after review of the planned accessory

building or structure and the conditions existing on the lot upon which the accessory building or structure is to be built, concludes the following:

- a. The building or structure is no higher than the principal residence on the lot.
- b. The building or structure is architecturally compatible with the principal residence on the lot."

SECTION 2. Add a new Section 4-9.11, to be entitled "Building Size Restrictions", for a limitation on the size of accessory buildings to read in its entirety as follows:

"4-9.11 Building Size Restrictions. Accessory buildings on residential lots shall not occupy more than nine hundred (900) square feet of lot area."

SECTION 3. Change the existing accessory use provisions in Section 4-9.8, "Solar Collectors", in its entirety to read as follows:

"4-9.8 WIND, SOLAR OR PHOTOVOLTAIC ENERGY FACILITIES.

a. *Purpose.*

The primary purpose of an accessory wind, solar or photovoltaic energy system is to provide power for the principal use of the property, whether residential, nonresidential or farming, whereon said system is to be located, and shall not be for the generation of power for commercial sale purposes, although this provision shall not be interpreted to prohibit the sale of excess power generated from time to time from a wind, solar or photovoltaic energy system designed to meet the energy needs of the principal use. For the purposes of this subsection concerning accessory energy systems, 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.

The primary purpose of these zoning ordinance provisions is to establish standards and limitations for the installation and operation of solar and small wind energy systems and other photovoltaic systems as permitted accessory uses and permitted accessory structures in all zoning districts within the Township of Millstone.

This ordinance is adopted in compliance with the following:

1. N.J.S.A. 40:55D-66.12, entitled "Municipal Ordinances Relative To Small Wind Energy Systems", which was approved on January 16, 2010 as P.L.2009, Chapter 244, and which limits the restrictions municipalities can require for the installation and operation of small wind energy systems so as not to unreasonably hinder the performance of such installations.

2. N.J.S.A. 52:27D-141.1, entitled "Residential Development Solar Energy Systems Act", which was approved on March 31, 2009 as P.L.2009, Chapter 33, and which provides for regulations for the installation of solar energy facilities in new residential developments consisting of 25 or more residential dwelling units.

3. N.J.S.A. 4:1C-32.4, entitled "Certain Generation Facilities, Structures, Equipment Permitted on Preserved Farmland", which was approved January 16, 2010 as P.L.2010, Chapter 213, and which provides that a person who owns preserved farmland may construct, install, and operate biomass, solar, or wind energy generation facilities, structures, and equipment on the farm, and may make improvements to agricultural, horticultural, residential, or other buildings or structures on the land for that purpose, provided that the biomass, solar, or wind energy generation facilities, structures, and equipment meet specific requirements.

4. N.J.A.C. 2:76-A.12, entitled "Agricultural Management Practice For The Construction, Installation, Operation Or Maintenance Of Solar Energy Generation Facilities, Structures And Equipment On Commercial Farms", which was adopted on July 20, 2011 and which provides for regulations for the installation and operation of solar energy facilities on commercial farms with reference to the "Right To Farm Act".

While Millstone Township intends to comply with the prevailing law, it also wishes to safeguard the farmland within its bounds, much of which has been preserved via State, County and local funding. Millstone Township also does not wish to jeopardize the use or tranquility of the preserved open space lands within its bounds by any neighboring inappropriate development.

Millstone Township notes that a new 2011 State Energy Master Plan has been prepared as a basis to fulfill the State's energy needs for the next ten (10) years. The Township agrees with a policy of the plan to focus the development of large renewable energy resource facilities on large commercial, landfill and/or brownfield sites and discourage the development of such facilities which will adversely impact the preservation of farmland and open space lands.

b. *Definitions.*

COLLECTOR SURFACE: Any part of a solar collector that absorbs solar energy for use in the collector's energy transformation process but does not include frames, support and mounting hardware.

METEOROLOGICAL TOWER: A structure designed to support the gathering of wind energy resource data and includes the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow and characterize the wind resource at a given location. For the purpose of this ordinance, meteorological towers shall conform to the requirements for small wind energy systems.

RENEWABLE ENERGY FACILITY: A facility that engages in the production of electric energy from solar technologies, photovoltaic technologies, or wind energy.

ROTOR DIAMETER: The cross sectional dimension of the circle swept by the rotating blades of a wind-powered energy generator.

SMALL WIND ENERGY SYSTEM: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity consistent with applicable provisions of the State Uniform Construction Code promulgated pursuant to the "State Uniform Construction Code Act," P.L.1975, c.217 (C.52:27D-119 et seq.) and technical bulletins issued pursuant to section 2 of P.L.2009, c.244 (C.40:55D-66.13), and which will be used primarily for onsite consumption.

SOLAR COLLECTOR: A device, structure or part of a device or structure in which a substantial purpose is used to transform solar energy into thermal, mechanical, chemical or electrical energy.

SOLAR ENERGY: Direct radiant energy received from the sun.

SOLAR ENERGY SYSTEM: A solar energy system and all associated equipment including any generator, base, foundation, structural support, wire, batteries or other components necessary to convert solar energy into useable electrical energy through the use of solar panels.

SOLAR PANEL: 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.

SYSTEM HEIGHT: For small wind energy systems, the height above grade of the tower plus the wind generator.

TOWER HEIGHT: The height above grade of the fixed portion of the tower, excluding the wind generator.

VAWT SYSTEMS: A vertical axis wind turbine which utilizes vertical panels as opposed to horizontal propellers.

WIND GENERATOR: Blades and associated mechanical and electrical conversion components mounted on top of the tower.

WIND, SOLAR OR PHOTOVOLTAIC ENERGY FACILITY OR STRUCTURE: A facility or structure for the purpose of supplying electrical energy produced from wind, solar, or photovoltaic technologies, whether such facility or structure is a principal use, a part of the principal use or an accessory use or structure.

WIND TOWER: The monopole, freestanding, or guyed structure that supports a wind generator.

c. *Solar Energy Systems.*

1. Rooftop or building mounted solar collectors are permitted as accessory uses and structures in all zoning districts in the Township and for all principal permitted buildings in the Township, subject to the following requirements:

(a) On residential properties, solar panels and all accessory equipment for the solar energy system shall not exceed a height of twelve (12) inches beyond the edge of the roofline or above the highest point of the roof structure or surface upon which the panels and equipment are located.

(b) On all other properties, solar panels and all accessory equipment for the solar energy system shall not exceed a height of twelve (12) inches above the highest point of the roof surface upon which they are located, but in no event shall the placement of the solar panels or any related accessory equipment result in a total height, inclusive of the building, exceeding that height which is otherwise permitted in the applicable zoning district.

(c) Any ground-mounted accessory equipment associated with the rooftop or building mounted solar collectors shall be no higher than ten feet (10') in height and shall be located within ten feet (10') of the building upon which the panels are located and shall conform to the accessory building setbacks and the coverage requirements of the applicable zoning district.

(d) For all residential properties, a zoning permit for a compliant rooftop or building mounted solar energy system on a residential property is required from the Township Zoning Officer in accordance with Section 3-7.1 of this chapter, and all information required by the Zoning Officer to determine compliance with the provisions of this ordinance shall be provided for the permit.

(e) In the instance where a proposed rooftop or building mounted solar energy system on a residential property is not compliant with the provisions of this ordinance, and for all other properties, see Section 4-9.8 h. of this ordinance for site plan approval requirements.

2. Ground-mounted or freestanding solar collectors are permitted as accessory uses and structures in all zoning districts of the Township subject to the following requirements:

(a) Ground-mounted arrays and freestanding solar collectors may be located only on properties at least one (1) acre or greater in area.

(b) The total surface area of all ground-mounted or freestanding solar collectors on a residential lot shall not exceed a maximum aggregate area of 900 square feet on lots 1 acre to 5 acres in area, 1,050 square feet on lots 5 acres to 10 acres in area, and 1,200 square feet on lots 10 acres or larger in area.

(c) The solar collectors and accessory equipment shall not be permitted in front yard areas.

(d) The location of any ground-mounted or freestanding solar collectors or other structures or equipment associated with a solar energy system on a residential lot shall be set back a distance of 40 feet from all side and rear property lines; for non-residential lots, the setback shall be 50 feet or the accessory building setback requirement of the applicable zoning district, whichever distance is greater.

(e) The height of the solar collectors and any mounts shall not exceed twelve (12) feet when oriented at maximum tilt, except where topographic or other conditions require a greater height.

(f) The solar collectors shall be located so that any glare is directed away from an adjoining property or street; landscaped vegetative screening may be required between the solar energy system and adjacent properties or streets where insufficient screening exists to obscure or shield the view, year-round from the street or adjacent property, particularly in the instance of an adjacent residential use or district or an historic site or district.

(g) All electrical wires servicing a ground-mounted solar system, other than wires necessary to interconnect the solar panels, and the grounding wires shall be located underground.

(h) If the solar collectors and ground-mounted equipment are to be surrounded by a fence, all such fencing shall be set back at least fifteen feet (15') from any property line and shall be at least four feet (4') but no greater than six feet (6') in height.

(i) The installation of the solar collectors or panels and any accessory equipment shall be outside any land area exhibiting freshwater wetlands, wetland transitional buffers, 100-year flood plains, topographic slopes fifteen (15) percent or greater, and/or stream corridor buffers.

(j) In order to ensure that there will be minimal disturbance and impact to the land and to promote easy removal and rehabilitation of the site, the preferable method of installation of the solar collectors or panels is by removable earth screws, auger driven piers or a similar system that does not require concrete footings or other relatively permanent foundations. The installation shall respect the natural contours and no grading shall be permitted for the system itself. The area below the solar collectors or panels shall be field seeded with native plantings to promote biodiversity and a natural habitat.

(k) All ground-mounted or freestanding solar energy systems with a total surface area not exceeding the applicable maximum aggregate area permitted in Subsection 4-9.8 c.2.(b) herein shall be submitted for review and approval by the Township Engineer and the Township Land Use Planner.

(1) Once approved by the Township Engineer and the Township Land Use Planner, the plans shall be signed by the Township Engineer, and no construction permit shall be issued by the Township Construction Official until he or she is in receipt of such signed plans.

(2) An escrow account of fifteen hundred dollars (\$1,500) shall be established by the applicant with Millstone Township to pay for the time expended by the Township Engineer and the Township Land Use Planner, and an application fee of two hundred fifty dollars (\$250) also shall be provided.

- (1) For any ground-mounted or freestanding solar energy system with a total aggregate surface area which exceeds the applicable maximum aggregate area permitted in Subsection 4-9.8 c.2.(b) herein, see Section 4-9.8 h. of this ordinance for site plan approval requirements.
3. For residential developments of 25 or more dwelling units, see Subsection 4-9.8 e. herein below for additional provisions, requirements, limitations and standards.
4. For farms, see Subsection 4-9.8 f. herein below for additional provisions, requirements, limitations and standards.

d. *Small Wind Energy Systems.*

1. Small Wind Energy Systems are permitted as accessory uses on lots in all zoning districts in the Township, subject to the following requirements:

(a) A minimum lot size of five (5) acres shall be required to install a small wind energy system, and no more than one (1) small wind energy system shall be permitted on a lot.

(b) Small wind energy systems shall not be located within any front yard area.

(c) Towers shall be set back a distance equal to one and one-half (1.5) times the height of the tower from all property lines, public roads, dwellings, and overhead power lines. The distance shall be measured from the center of the tower.

(d) The maximum total height of any small wind energy system shall not exceed a one hundred (100) feet; the total height shall include the vertical distance from the ground to the tip of a wind generator blade when the tip is at its highest point.

(e) Small wind energy systems shall be placed in such a manner as to minimize visual impacts to adjacent residential zoning districts and/or existing residential uses.

(f) Access restrictions shall be designed as follows:

(1) All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.

(2) The tower shall be designed and installed so as not to provide permanent step bolts, ladders, or other publicly accessible means of climbing the tower for a minimum height of ten (10) feet above the ground.

(g) A small wind energy system shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration or other applicable authority.

(h) A small wind energy system shall remain painted or finished in a grey or white color that was originally applied by the manufacturer unless the approving authority determines that their visual impact on the surrounding landscape will be minimized by another color or finish.

(i) The level of noise produced by a small wind energy system shall not exceed 55 dBa beyond the ambient noise levels prior to construction as measured at the property boundaries of the property on which the small wind energy system is to be located.

(1) The noise level limit shall not apply during short-term events such as utility outages and/or severe wind storms.

(2) The applicant shall provide technical information on noise levels prepared by a qualified professional.

(j) No small wind energy system shall be roof mounted, except that a VAWT system may be installed upon any portion of a roof, provided that the total height of the system shall not extend beyond ten (10) feet above the roof line and provided further that the said VAWT system shall be setback no less than fifty (50) feet from any property line.

(k) All wind energy systems, except for a VAWT system permitted to be constructed on a roof, shall be mounted on a monopole, shall not utilize a truss frame construction, and shall not require a wired guyed system.

(l) All wind energy systems shall be designed with an automatic braking system and an over-speed control to prevent over-speeding and excessive pressure on the tower structure during periods of excessively high winds.

(m) The blades on the small wind energy system shall be constructed of a corrosive resistant material, and the tower shall not be constructed of aluminum.

(n) There shall be a minimum ground clearance of at least fifteen (15) feet between the finished grade and bottom of any rotor, blade or moving part of a wind energy system.

(p) A meteorological tower shall be permitted under the same standards and requirements as a small wind energy system.

(o) See Section 4-9.8 h. of this ordinance for site plan approval requirements.

2. For farms, see Subsection 4-9.8 f. herein below for additional provisions, requirements, limitations and standards.

e. *Solar Energy Systems in Residential Developments of 25 or More Dwelling Units.*

1. Residential developments of 25 or more dwelling units for owner occupancy shall conform to the provisions of the "Residential Development Solar Energy Systems Act" (N.J.S.A. 52:27D-141.1 et seq.) and standards relative to solar energy systems adopted by the Commissioner of the Department of Community Affairs pursuant to N.J.S.A. 52:27D-141.7.

2. Where technically feasible, as determined by the Commissioner of the Department of Community Affairs in consultation with the Board of Public Utilities, a developer shall offer to install, or to provide for the installation of, a solar energy system into a dwelling unit when a prospective owner enters into negotiations with the developer to purchase a dwelling unit.

f. *Energy Generation Facilities As Accessory Uses on Preserved Farmland, Commercial Farms & Other Farms.*

1. Preserved Farmland.

(a) Notwithstanding any law, rule or regulation to the contrary, a person who owns preserved farmland may construct, install, and operate biomass, solar, or wind energy generation facilities, structures, and equipment on the farm, whether on the preserved portion of the farm or on any portion excluded from preservation, for the purpose of generating power or heat, and may make improvements to any agricultural, horticultural, residential, or other building or structure on the land for that purpose, provided that the biomass, solar, or wind energy generation facilities, structures, and equipment:

(1) Do not interfere significantly with the use of the land for agricultural or horticultural production as determined by the State Agriculture Development Committee;

(2) Are owned by the landowner, or will be owned by the landowner upon the conclusion of the term of an agreement with the installer of the biomass, solar, or wind energy generation facilities, structures, or equipment by which the landowner uses the income or credits realized from the biomass, solar, or wind energy generation to purchase the facilities, structures, or equipment;

(3) Are used to provide power or heat to the farm, either directly or indirectly, or to reduce, through net metering or similar programs and systems, energy costs on the farm; and

(4) Are limited in annual energy generation capacity to the previous calendar year's energy demand plus ten percent (10%), in addition to energy generated from facilities, structures or equipment existing on the roofs of buildings or other structures on the farm as of January 16, 2011 pursuant to N.J.S.A. 4:1C-32.4 b., or, alternatively and at the option of the landowner, occupy no more than one percent (1%) of the area of the entire farm, including both the preserved portion and any portion excluded from preservation.

(b) The person who owns the farm and the energy generation facilities, structures, and equipment may only sell energy through net metering or as otherwise permitted under an agreement allowed pursuant to Subsection 4-9.8 f.1.(a)(2) above.

(c) For the purposes of this ordinance subsection, the following definitions apply:

(1) "Biomass" means an agricultural crop, crop residue, or agricultural byproduct that is cultivated, harvested, or produced on the farm and which can be used to generate energy in a sustainable manner.

(2) "Net metering" means the same as that term is used for purposes of subsection e. of section 38 of P.L.1999, c.23 (C.48:3-87).

(3) "Preserved farmland" means land on which a development easement was conveyed to, or retained by, the committee, a board, or a qualifying tax exempt nonprofit organization pursuant to the provisions of section 24 of P.L.1983, c.32 (C.4:1 C-31), section 5 of P.L.1988, c.4 (C.4:1C-31.1), section 1 of P.L.1989, c.28 (C.4:1C-38), section 1 of P.L.1999, c.180 (C.4:1C-43.1), sections 37 through 40 of P.L.1999, c.152 (C.13:8C-37 through C.13:8C-40), or any other State law enacted for farmland preservation purposes.

(d) Required State Approvals.

(1) A landowner shall seek and obtain the approval of the State Agriculture Development Committee before constructing, installing, and operating biomass, solar, or wind energy generation facilities, structures, and equipment on the farm as allowed pursuant to Subsection 4-9.8 f.1.(a) above.

(2) In the case of biomass energy generation facilities, structures, or equipment, the landowner shall also seek and obtain the approval of the Department of Agriculture as required pursuant to section 5 of P.L.2009, c.213 (C.4:1C-32.5) if the land is valued, assessed and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.).

(e) See Section 4-9.8 f.3. hereinbelow for additional provisions and requirements.

2. Commercial Farms.

(a) Notwithstanding the provisions of any municipal or county ordinance, resolution, or regulation to the contrary, the owner or operator of a commercial farm, located in an area in which, as of December 31, 1997 or thereafter, agriculture is a permitted use under the Township Land Use And Development Regulations and is consistent with the Township Master Plan, or which commercial farm is in operation as of July 2, 1998, and the operation of which conforms to agricultural management practices recommended by the State Agriculture Development Committee and adopted pursuant to the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), or whose specific operation or practice has been determined by the Monmouth County Agricultural Development Board to constitute a generally accepted agricultural operation or practice, and all relevant federal or State statutes or rules

and regulations adopted pursuant thereto, and which does not pose a direct threat to public health and safety may engage in the generation of power or heat from biomass, solar, or wind energy, provided that the energy generation is consistent with P.L.2009, c.213 (C.4:1C-32.4 et al.), as applicable, and the rules and regulations adopted therefor and pursuant to section 3 of P.L.2009, c.213 (C.4:1C-9.2).

(b) No land used for biomass, solar, or wind energy generation shall be considered land in agricultural or horticultural use or actively devoted to agricultural or horticultural use for the purposes of the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.), except as provided in section 6 of P.L.1983, c.31 (C.4:1C-9), and no generated energy from any source shall be considered an agricultural or horticultural product.

(c) Land used for biomass, solar, or wind energy generation may be eligible for valuation, assessment and taxation pursuant to P.L.1964, c.48 (C.54:4-23.1 et seq.) with the provisions of subsection b. of C.54:4-23.3c, as specifically determined by the Township Tax Assessor in consultation with the Township Attorney, as necessary.

(d) A landowner shall seek and obtain the approval of the State Department of Agriculture before constructing, installing, or operating biomass energy generation facilities, structures, and equipment on any land that is valued, assessed and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.), in addition to any other approvals that may be required by law.

(e) The installation of any biomass, solar, or wind energy generation facility on a commercial farm shall abide by the rules, standards and regulations, including N.J.A.C. 2:76-2A.12, that are, or may be, established by the State Agriculture Development Committee (SADC) as well as those set forth in this ordinance, provided that the latter are not in conflict with any rules, standards and regulations established by the SADC or State Department of Agriculture.

(f) See Section 4-9.8 f.3. herein below for additional provisions and requirements.

3. Additional Provisions & Requirements For Any Farm:

Notwithstanding anything to the contrary in this ordinance, the following requirements shall also be applicable to any accessory wind, solar or photovoltaic energy system on any preserved farmland, commercial farmland or on any other farm:

(a) The minimum distance between any portion of a solar or photovoltaic energy facility and a street line shall be 75 feet and the minimum distance from any other property line shall be 50 feet, unless a greater setback is required by the SADC or any other outside agency.

(b) Wind towers shall be set back a distance equal to one and one-half (1.5) times the height of the tower from all property lines, public roads, dwellings, and overhead power lines. The distance shall be measured from the center of the tower.

(c) The maximum total height of any small wind energy system shall not exceed one hundred twenty (120) feet; the total height shall include the vertical distance from the ground to the tip of a wind generator blade when the tip is at its highest point.

(d) No portion of any wind, solar or photovoltaic energy system shall be constructed or installed on prime farmlands as defined by the USDA Natural Resources Conservation Service and/or identified in an "Agricultural Development Area", unless the applicant can show that there is no other option for the location of such accessory structures on the farm.

(e) The construction and installation of any energy system shall be designed to minimize any adverse impacts on the productivity of the soil.

(f) See Section 4-9.8 h. of this ordinance for site plan approval requirements.

(g) Where site plan approval is required for any energy management system on a farm, a plan that prescribes the conservation and natural resource management measures for the conservation, protection and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of non-point pollution shall be required as part of the site plan application.

g. *General Requirements for Wind, Solar or Photovoltaic Energy Systems.*

1. Solar panels shall not be included in any calculation of impervious surface or impervious cover in accordance with N.J.S.A. 40:55D-38.1.

2. Solar energy systems shall be designed to sustain wind loads up to 110 miles per hour (mph) and snow loads of 50 pounds per square foot (psf).

3. Wind, solar or photovoltaic energy systems or any associated structure shall not be used for displaying any advertising or signage, except for reasonable identification of the manufacturer, installer, or operator of the system and appropriate warning signs, all not to exceed, in aggregate, four (4) square feet in area.

4. The design of a wind, solar or photovoltaic energy system shall, to the extent possible, use materials, colors, textures, screening and landscaping that will blend into the natural setting and existing environment.

5. When a new driveway or road is required for access to the wind, solar or photovoltaic systems, the surface shall be either pervious pavement or gravel and shall be the minimum width to accommodate maintenance as well as emergency vehicles.

6. All wind, solar or photovoltaic energy system installations must be performed by a qualified installer, and prior to operation the electrical connections must be inspected by the Township or other appropriate electrical inspection agency, as determined by the Township. In addition, any interconnection to the public utility grid must be inspected by the appropriate public utility.

(a) All power lines from a wind, solar or photovoltaic energy system to onsite interconnection equipment shall be located underground and installed by a certified professional and must meet all applicable national, state, and local electrical codes.

(b) The installation of any energy system shall conform to the National Electric Code as adopted by the NJ Department of Community Affairs and the State Uniform Construction Code.

(c) Wind, solar or photovoltaic energy systems that connect to the electric utility grid shall comply with the New Jersey Net Metering and Interconnection Standards for Class I Renewable Energy Systems at N.J.A.C. 14:4-9 and as required by the electric utility servicing the property.

7. When batteries are included as part of the wind, solar or photovoltaic energy system, the batteries require a charge controller and must be placed in a secure container or enclosure meeting the requirements of the State Uniform Construction Code when in use and, when no longer used, the batteries shall be disposed of in accordance with the laws and regulations of Monmouth County and other applicable laws and regulations. It is preferable to have the energy system connected to the energy grid in lieu of stand-alone systems relying upon batteries to store excess power.

8. If a wind, solar or photovoltaic energy system ceases to perform its originally intended function for more than 12 consecutive months, the property owner shall remove the tower, collector, mount and/or associated equipment and facilities by no later than 90 days after the end of the twelve-month period and shall restore the property to its original condition.

9. No portion of any wind, solar or photovoltaic energy system shall be located within 250 feet of the closest property line of an historic site or historic district, and the energy system shall be screened from the view of the historic site or historic district.

10. The applications for a wind, solar or photovoltaic energy system shall conform to the provisions of Section 11-25 of this ordinance, entitled "Tree Preservation", with respect to tree removal.

(a) Any trees and/or shrubs to be removed to accommodate the installation of a wind, solar or photovoltaic energy system shall be accompanied by a site plan identifying the location, size and species of trees to be removed and demonstrating the need to remove the trees.

(b) An applicant shall locate a wind, solar or photovoltaic energy system so that tree removal is not required to the extent practical; where trees are to be removed, the Planning Board or Zoning Board, as the case may be, may require the replacement of trees on the subject property at a one-to-one ratio.

11. Where site plan approval is required, the site plan review shall include review of the adequacy, location, arrangement, size, design, and general site compatibility of the proposed wind, solar or photovoltaic energy systems and its components. Applications and permits for a wind, solar or photovoltaic energy system shall include information demonstrating its efficiency and its compliance with the provisions of this ordinance.

h. *Site Plan Application Requirements.*

1. Minor site plan approval from the Planning Board, in accordance with Section 9-2 of this chapter and 4-9.8 h.3. of this ordinance hereinbelow shall be required for the following wind, solar or photovoltaic energy facilities, with any required variance relief being in accordance with N.J.S.A. 40:55D-70 c. of the Municipal Land Use Law:

(a) For any proposed rooftop or building mounted solar energy system on a residential property that is not in compliance with the provisions of Section 4-9.8 c.1. of this ordinance.

(b) For any proposed rooftop or building mounted solar energy system pursuant to Section 4-9.8 c.1. of this ordinance on any property other than a residential property.

(c) For any ground-mounted or freestanding solar energy system pursuant to Section 4-9.8 c.2. of this ordinance which has a total aggregate surface area more than 750 square feet but less than 5,000 square feet.

(d) For any small wind energy system pursuant to Section 4-9.8 d. of this ordinance.

2. Major site plan approval from the Planning Board, in accordance with Section 9-2 of this chapter and 4-9.8 h.3. of this ordinance hereinbelow, shall be required for any ground-mounted or freestanding solar energy system pursuant to Section 4-9.8 c.2. of this ordinance with a total aggregate surface area of 5,000 square feet or more.

3. All site plan applications shall be accompanied by a plot plan survey which shall include the following information in addition to any other information required for the minor or major site plan application pursuant to Section 9-2.1 of this chapter:

(a) Property lines and physical dimensions of the property, as shown on a current survey;

(b) Location, dimension, and types of existing structures and easements on the property;

(c) Location, dimensions and type of the proposed wind, solar or photovoltaic energy system, including manufacturer's specifications and operation requirements, the model of all components, panel height and width, ground elevation and height of the system, and setbacks from property lines and buildings;

(d) Orientation of the wind, solar or photovoltaic energy system;

(e) The right-of-way line of any public or private road contiguous with the property;

(f) Any above ground or overhead utility lines;

(g) Existing and proposed landscaping and fencing for ground-mounted systems, including photographs of the area proposed for the energy system;

(h) The location of any historic site or district within 200 feet of the property upon which an energy system is proposed and the distance between the closest property line of an historic site or district and the proposed energy system;

- (i) For small wind energy systems, verification from a qualified design professional that the proposed location and proposed tower elevation has sufficient wind speeds for operation of the wind energy system;
- (j) For small wind energy systems, tower and tower foundation drawings prepared and sealed by a licensed engineer in the State of New Jersey; and
- (k) For small wind energy systems, noise levels of the proposed wind energy system at all property lines.

4. Upon completion of a small wind energy system, a certified letter from a professional engineer will be required to be submitted by the applicant to the Township Clerk stating that the structure was constructed in accordance with the approved drawings."

SECTION 4. Amend existing Section 5-13.1, "Permitted Principal Uses" in the "BP" Business Park Zone, by the addition of a new Subsection 5-13.1.1. to read as follows:

"1. Wind, solar or photovoltaic energy facilities for the production of electric energy on tracts of land at least twenty (20) contiguous acres or more in size that are owned by the same person or entity as permitted at N.J.S.A. 40:55D-66.11, subject to the following:

- 1. A minimum lot size of twenty (20) acres shall be required.
- 2. The minimum distance between any portion of a solar or photovoltaic energy facility and a street line shall be 75 feet and the minimum distance from any other property line shall be 50 feet.
- 3. Wind towers shall be set back a distance equal to one and one-half (1.5) times the height of the tower from all property lines, public roads, dwellings, and overhead power lines. The distance shall be measured from the center of the tower.
- 4. The maximum total height of any small wind energy system shall not exceed one hundred twenty (120) feet; the total height shall include the vertical distance from the ground to the tip of a wind generator blade when the tip is at its highest point.
- 5. More than one (1) tower for a small wind energy system shall be permitted on a lot as a principal permitted use.
- 6. No rooftop installation is permitted for wind, solar or photovoltaic energy facilities as principal uses.
- 7. Small wind energy systems shall have a nameplate capacity of 10 kilowatts or less.
- 8. All other applicable requirements in Section 4-9.8 of this chapter shall be met, except that there shall be no limitation on the total surface square footage area of any ground-mounted or freestanding solar collectors on a lot.
- 9. Wind, solar or photovoltaic energy facilities as principal permitted uses shall require major site plan approval. In addition to the submission requirements for a minor site plan application set forth in Section 4-9.8 h.3. of this ordinance and all other applicable submission requirements for a major site plan, a visual site distance analysis must be submitted, including photos of the subject property that graphically simulates the appearance of any proposed energy system from at least five (5) locations around and within one (1) mile of the proposed tower(s) or solar arrays."

SECTION 5. All Ordinances and parts of Ordinances inconsistent herewith are repealed.

SECTION 6. If any section, subparagraph, sentence, clause or phrase of this Ordinance shall be held to be invalid, such decision shall not invalidate the remaining portion of this Ordinance.

SECTION 7. This Ordinance shall take effect upon adoption and publication according to law and filing with the Monmouth County Planning Board.

EXPLANATORY STATEMENT: This ordinance proposes Wind, Solar & Photovoltaic Energy Facilities" to promote the safe, effective and efficient use of solar and small wind energy systems to reduce the on-site consumption of utility-supplied electricity.