

Referred to the Planning
Board on: 7-19-17

**THE TOWNSHIP OF EWING
COUNTY OF MERCER, NEW JERSEY**

ORDINANCE NO. 17-23

1st Reading 7-11-17

Date to Mayor 9-13-17

2nd Reading &
Public Hearing 9-12-17

Date Returned 9-13-17

Date Adopted:
9-12-17

Date Resubmitted to Council _____
Approved as to Form of Legality

Effective Date:
10-02-17

Township Attorney

**ORDINANCE OF THE TOWNSHIP OF EWING, IN THE COUNTY OF MERCER,
AMENDING ZONING OF SOLAR ENERGY RESOURCES WITHIN THE TOWNSHIP**

First Reading

MEMBER	AYE	NAY	ABSENT	ABSTAIN	MOVE	SECOND
Baxter	X					X
Keyes-Maloney	X				X	
Schroth	X					
Wollert	X					
Steward			X			

Second Reading

MEMBER	AYE	NAY	ABSENT	ABSTAIN	MOVE	SECOND
Baxter	X					X
Keyes-Maloney	X				X	
Schroth	X					
Wollert	X					
Steward	X					

By _____ Date _____ Accepted _____ Rejected _____
Mayor

Reconsidered
By Council _____ Override Vote YEA _____ NAY _____

President of the Council

Municipal Clerk

**TOWNSHIP OF EWING
ORDINANCE NO. 17-23**

**ORDINANCE OF THE TOWNSHIP OF EWING, IN THE COUNTY OF MERCER,
AMENDING ZONING OF SOLAR ENERGY RESOURCES WITHIN THE TOWNSHIP**

“Interpretive Statement”

This ordinance will amend Chapter 215, Article II, Section 215-8 of the Township Code, entitled “Definitions”, and amend Chapter 215, Article II, Section 215-35 “Conditional Uses”,

WHEREAS, the Mayor and Council of the Township of Ewing wish to implement the Township’s Master Plan through updating the Township’s Land Development Ordinance; and

WHEREAS, the Mayor and Council of the Township of Ewing wish to enhance and create a sense of place that encourages economic vitality and environmental stewardship through well-designed land development that is consistent with established and planned land use patterns and preserves the community’s suburban and urban landscapes alike, which make Ewing Township a unique and desirable place to both live and work; and,

WHEREAS, the Township’s Master Plan and subsequent Reexamination Reports identify the need to implement the recommendations that address renewable energy; and

WHEREAS, the Mayor and Council of the Township of Ewing has determined that;

- Solar energy are abundant, renewable, and non-polluting energy resources;
- Converting solar rays to electricity will reduce our dependence on non-renewable energy resources and decrease air and water pollution that results from the use of most conventional energy uses;
- Solar energy systems enhance the reliability and quality of the power grid, reduce peak power demands, and help diversify the State’s energy supply portfolio;
- Solar energy systems make the electricity supply market more competitive by promoting customer choice

WHEREAS, the purpose of this ordinance is to promote the safe, effective and efficient use of solar energy systems in appropriate locations in the Township in a way that is consistent with duly enacted State legislation, recognizes safety standards, minimizes potential land-use conflicts while facilitating alternative forms of energy production; and

WHEREAS, the ordinance seeks to:

- Preserve areas with an established rural and/or historic character by avoiding siting facilities on land within areas of rural and/or historic character, particularly on land which is exposed to public view and where, by reason of topography or other natural features, the facility cannot be effectively screened from public view;
- Protect the quality of life in residential districts by avoiding siting ground mounted facilities in locations where they would be visible or accessible from adjacent residential areas from the ground, and within reason.;
- Provide standards for buffering and screening, and accessibility of renewable energy facilities to protect surrounding properties from contact and glare and to mitigate the negative visual impact of ground mounted facilities from adjacent residential zone; and
- Provide for the proper decommissioning of the renewable energy facility after its useful life.

WHEREAS, amending the Township’s Land Development Ordinances to be consistent with its Master Plan is within the purpose and intent of the Municipal Land Use Law, N.J.S.A. 40:55D- et.seq, and;

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of the Township of Ewing, County of Mercer, State of New Jersey, as follows:

1. Chapter 215, Article II, Section 215-8 of the Township Code, entitled “Definitions” of the Land Development Ordinance, is amended as follows:

Definitions - ADD

Photovoltaic System (also referred to as Photovoltaic Installation): An active solar energy system that converts solar energy directly into electricity.

Rated Nameplate Capacity: The maximum rated output of electric power production of the photovoltaic system in watts of Direct Current (DC).

Solar Access: The access of a solar energy system to direct sunlight. Space open to the sun and clear of overhangs or shade including the orientation of streets and lots to the sun so as to permit the use of active and/or passive solar energy systems on individual properties

Solar Collector: A device, structure or a part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical energy.

Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Energy System Active: A solar energy system or facility whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

Solar Energy System, Grid-Intertie: A photovoltaic system or facility that is connected to an electric circuit served by an electric utility.

Solar Energy System, Freestanding or Ground-Mounted: An Active Solar Energy System or facility that is structurally mounted to the ground and is not roof-mounted; may be of any size (small-, medium- or large-scale). While systems placed over commercial parking fields are ground mounted for the most part, for the purpose of this ordinance they are treated differently.

Solar Energy System, Large-Scale: An Active Solar Energy System or facility that occupies more than 40,000 square feet of lot area (equivalent to a rated nameplate capacity of about 250kW DC or greater).

Solar Energy System, Medium-Scale: An Active Solar Energy System or facility that occupies more than 1,750 but less than 40,000 square feet of lot area (equivalent to a rated nameplate capacity of about 10 - 250 kW DC).

Solar Energy System, Off-Grid: A photovoltaic solar energy system or facility in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility.

Solar Energy System, Passive: A solar energy system or facility that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

Solar Energy System, Roof-Mounted: An Active Solar Energy System or facility that is structurally mounted to the roof of a building or structure; may be of any size (small-, medium- or large-scale).

Solar Energy System, Small-Scale: An Active Solar Energy System or facility that occupies 1,750 square feet of surface area or less (equivalent to a rated nameplate capacity of about 10 kW DC or less).

Solar Energy System, Residential-Scale: An Active Solar Energy System or facility that occupies 500 square feet of surface area or less

Solar Thermal System: An Active Solar Energy System or facility that uses collectors to convert the sun's rays into useful forms of energy for water heating, space heating, or space cooling.

Excess energy: is that energy produced beyond the annual average energy residential use.

2. Solar Energy Systems are permitted on rooftops in all zones, not without exception, provided that;
 - a. Panels are situated not to fully obstruct fire suppression accessibility.
3. Conditional Uses in the following zones will be amended to include (17) Solar Energy Systems.
 - i. BH
 - ii. BN
 - iii. TC
 - iv. RM
 - v. R-TH
 - vi. IP-1, IP-2, IP3
 - vii. OP-1, OP-2
 - viii. OARP all subareas
4. Chapter 215, Article II, Section 215-35(c) of the Township Code, *Conditional Uses*, is amended to include the following addition:

(17) Solar Energy Systems

A. Generally

1. Abandonment. A solar energy facility that is out-of-service or not functional for a continuous eighteen-month period will be deemed to have been abandoned

- i. The Township may issue a Notice of Abandonment to the owner of a solar energy facility that is deemed to have been abandoned. The Notice shall be sent return receipt requested.
- ii. The owner shall have the right to respond to the Notice of Abandonment within 30 days from the Notice receipt date.
- iii. If the owner provides information that demonstrates the solar energy facility has not been abandoned, the Township shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn.
- iv. If the Township determines that the solar energy facility has been abandoned, the owner of the solar energy facility shall remove the solar energy facility and properly dispose of the components at the owner's sole expense within six months after the owner receives the Notice of Abandonment or 6 months following the appeal by the owner, whichever is longer..
- v. 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.

2. All applications for a solar or photovoltaic systems or facility as a principal and accessory use shall be accompanied by a Decommissioning Plan to be implemented upon abandonment in conjunction with removal of solar energy facilities. Before beginning any decommissioning activities the applicant must submit a performance bond in a form and amount satisfactory to the Township, which shall be based upon an estimate approved by the Township Engineer assuring the availability of adequate funds to restore the site to a useful non-hazardous condition in accordance with the Decommissioning Plan. Single-family homeowners are exempt from the need to obtain a bond for roof-mounted systems. Notwithstanding the differing needs between roof and ground mount systems, the Decommissioning Plan shall include the following provisions where applicable:

- i. Full restoration of the roof and the associated materials designed to cover it (ie shingles, membranes, etc).
- ii. Removal of all electric components associated with the systems.
- iii. Restore the surface grade and soil after removal of above ground structures and equipment when applicable.
- iv. Restore soil areas with native seed mixes, agricultural crops and/or plant species suitable to the area and which do not include any invasive species .
- v. The Plan may provide for restoration of agricultural crops or forest resource land.
- vi. The Plan may provide for the retention of access roads, fences, gates, buildings and buffer plantings at the discretion of the Township.

B. Siting Preferences

1. Where a solar facility is sited, as well as placement on the site once selected, is an important consideration, particularly in regard to large-scale ground mounted facilities. The Township strongly discourages locations that result in significant loss of land and natural resources, including farm and forest land, and encourages rooftop siting, over-surface and structured parking lot facilities, as well as locations in industrial and commercial districts, or on vacant, disturbed land. Tree cutting above 100 SF is prohibited given the important water management, cooling, and climate benefits trees provide.

2. In Residential zones that permit Solar Energy Systems, and those zones which are adjoining residential, design integration is mandatory in order to protect the quality of life in residential districts where they would be visible or accessible from adjacent residential areas and to protect surrounding properties from contact or glare and to mitigate the negative visual impact of ground mounted facilities from adjacent residential areas. Stand-alone Freestanding or Ground Mounted arrays are discouraged unless over parking lots. Solar Energy Systems on residential properties are generally intended to produce energy for use primarily onsite, and shall not be installed or allowed to operate as a commercial enterprise with the intent to sell excess energy. Excess energy is that energy produced beyond the annual average energy residential use. Notwithstanding, Small-scale ground mounted solar energy systems may be permitted but only on site where proper screening can be accomplished as described in D.7 below, and whereby the residents in that immediate neighborhood are potentially the beneficiaries of the system.

3. Farm and large properties of 5-acres or more, rooftop application are preferable. If roof space is inadequate, non-productive farmland, and parking lot facilities are preferred. No Freestanding or Ground Mounted Large-Scale Solar Energy System will be permitted.

C. Permitting and Approvals –

1. All systems require Zoning Permits and appropriate Construction permits. Site Plan approval may not be necessary as long as they meet Accessory Use standards, including size and preferred locational requirements of the appropriate zone as well as the applicable Conditional use standards set forth in 215-35(c) (17);
2. Any solar or photovoltaic energy generating facility mounted to a structure above a surface parking area or a roof shall be deemed an accessory use in commercial zones and must adhere to all applicable building setbacks unless they are integrated within the overall site plan and part of the principle structure as in the case of roof-mounts or photovoltaic paneling.
3. Solar and photovoltaic facilities shall not be counted in the calculation of maximum impervious cover unless the area under the panels (excluding any footings) consists of an impervious material. The design of the facilities shall comply with all NJDEP and Township stormwater, grading and soil disturbance regulations, whichever is more restrictive.
4. Residential roof-mounted systems not requiring tree removal permitted in all zoning districts subject to the following conditions.
 - a. Building permits shall be required for installation of all rooftop and building-mounted solar collectors
 - b. Height limitations of the zoning district shall not be applicable provided that the structures are necessary to accomplish the purpose for which they are intended to serve, but not more than 10% of the total permitted height of the zone, and that such structures do not obstruct solar access to neighboring properties.
5. All Freestanding Solar Energy Systems require Site Plan review. Energy collectors must be fully integrated into the site by utilizing site design techniques and architectural integration (e.g. Trellis, decking, canopies, fencing, or any other technologies as they become available).
6. Ground mounted facilities shall be situated so as to obscure views of the said facility generally from public roadways, existing residences not located on site, from neighboring undeveloped residentially-zoned property are preserved utilizing visual barriers including, but not limited to, buildings, trees, hedgerows, natural topography, fences, and combinations thereof to the maximum extent possible, in addition to visual screening described elsewhere in this section and/or combinations thereof. Those systems integrated within the overall site design, such as over parking facilities, are not required to be screened per se. Reasonable view as applied to solar systems is primarily from the ground and general public view, although design efforts should be made to ensure residential views from multi-storied structures is considered.
7. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted outright in all zoning districts.
 - a. Commercial roof-mount systems not exceeding 10'FT in height above the permitted height within the zone, including parking garages.

- b. Commercial and Industrial ground-mounted systems located above a parking facility not fronting a street so long as the sites parking requirements remain met. Existing parking facilities are except from this requirement.
- c. Commercial and Residential systems combined architecturally as a cohesive presentation.
- d. All other systems require Site Plan approval.

D. Conditional Use Requirements for all Zones where permitted by Condition;

- 1. Building permits are required for the installation of all solar systems.
- 2. All Solar Energy System installations must be performed by a qualified solar installer and the installations must conform to the “NJ Uniform Construction Code” (UCC) that is in effect at the time of the installation. Homeowners may install their own systems where applicable under the UCC.
- 3. All electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- 4. Transmission wires shall be underground and otherwise concealed where feasible.
- 5. Sound levels from the energy facility shall not exceed the ambient sound level at the property line prior-to construction of the facility.
- 6. The location of the Solar Energy System meets all applicable setback requirements for accessory structures in the zoning district in which it is located, including height at maximum tilt.
- 7. Freestanding Solar Energy System energy collectors shall be integrated fully into the design of a site by utilizing design techniques and architectural integration (e.g. Trellis, decking, canopies, fencing, or any other technologies as they become available). Landscaping, earth berms, landscaping, and/or combination of various methods of screening, which harmonize with the character of the property and surrounding area will be required to be an effective visual barrier at the time of installation.
- 8. Solar Energy Systems and equipment shall be permitted only if they are determined to not present any unreasonable safety risks, including, but not limited to, the following:
 - a. Weight load
 - b. Wind resistance
 - c. Ingress or egress in the event of fire or other emergency situation
 - d. Proximity and accessibility to potentially dangerous elements of the system such as the renewable structures, wind blades, etc.
- 9. As a condition of Site Plan approval, the applicant and/or landowner shall agree to allow entry to remove an abandoned or decommissioned installation upon vacation per Section 215-35(c) 17.4.v.
- 10. Site Plan must include:
 - a. System Components – The Plan must include documentation of the major system components to be used, for example the panels, mounting system, and inverter.
 - b. The distance between the proposed solar collector installations and all property lines and existing on-site buildings and structures.
 - c. The tallest finished height of the solar collector.
 - d. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures. Materials, quantities, schedule, and planting details.

- 4. Upon introduction and first reading, a copy of this Ordinance shall be referred to the Planning Board for a master plan consistency review in accordance with N.J.S.A. 40:55D-62. This Ordinance shall not be scheduled for public hearing and final adoption until after the Planning Board shall report back to Council in the form of a resolution as to the consistency of this Ordinance with the master plan of the Township of Ewing. The Planning Board shall report on its master plan consistency review within 30 days of the date hereof.