CITY OF DOVER
ORDINANCE #2011-01

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF DOVER, IN COUNCIL MET:

That Appendix B - Zoning, Article 5 – Supplementary Regulations be amended by adding a new section 20 as follows:

Section 20. Solar and Small Wind Energy Systems.

Solar energy systems and small wind energy systems shall be permitted as accessory uses within all zones subject to the following requirements:

20.1Residential Zones

20.11Solar panels shall be affixed to the roof of the structure and shall not be free-standing structures

20.12Small wind energy systems in residential zones shall be subject to the following restrictions:

a. Small wind energy systems shall be setback 1.0 times the turbine height from adjoining property line. Turbine height means the height of the tower plus the length of 1 blade.
b. The aggregate noise or audible sound of a small wind energy system shall not exceed 5 decibels above the existing average noise level of the surrounding area and shall be restricted to a maximum of 60 decibels measured at any location along the property line to the parcel where the wind system is located.
c. Small wind energy systems shall be free from signage, advertising, flags, streamers, any decorative items or any item not related to the operation of the wind turbine. Electric wiring for the turbines shall be placed underground for non-building integrated systems.
d. Small wind energy systems shall not be permitted within the H (Historic District) Zone.
e. Any small wind energy system shall be **visually screened** from any properties or structures included on the National Register of Historic Places.

20.2Non-Residential Zones

20.21 Solar energy systems shall be subject to the following restrictions:

a. Ground-mounted solar energy systems shall not occupy more than **30** percent of the lot area.
b. If ground-mounted solar energy systems are proposed to occupy more than **30** percent of the lot area, their placement shall be subject to conditional use approval by the Planning Commission.

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c. Ground-mounted solar energy systems shall not be located between the principal structure and the street.
d. Solar energy systems, whether roof-mounted or ground-mounted, must comply with all building setback and height requirements for the zoning district where the system is to be installed.

20.22Small wind energy systems shall be subject to the following restrictions:

a. Small wind energy shall be setback 1.0 times the turbine height from adjoining property line. Turbine height means the height of the tower plus the length of 1 blade.
b. The aggregate noise or audible sound of a wind system shall not exceed 5 decibels above the existing average noise level of the surrounding area and shall be restricted to a maximum of 60 decibels measured at any location along the property line to the parcel where the small wind energy system is located.
c. Small wind energy systems shall be free from signage, advertising, flags, streamers, any decorative items or any item not related to the operation of the wind turbine. Electric wiring for the turbines shall be placed underground for non-building integrated systems.
d. Small wind energy systems shall not be permitted within the H (Historic District) Zone.
e. Any small wind energy system shall be **visually screened** from any properties or structures included on the National Register of Historic Places.

20.3Decommissioning
Solar energy systems and/or small wind energy systems must be maintained and kept in a state suitable for immediate operation. When it can be demonstrated that a solar energy system or small wind energy system as approved in accordance with this section is in a state of disrepair and is not suitable for immediate operation, that System shall be removed and the accessory use terminated.

BE IT FURTHER ORDAINED:

That Appendix B – Zoning, Article 12 – Definitions, be amended to add the following definitions:

Solar energy system – any solar collector or other solar energy device, or any structural design feature, mounted on a building or on the ground, and whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating or cooling, for water heating, or for electricity.

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 of not more than 100 kilowatts (kW) and which is intended to primarily reduce on-site consumption of utility-supplied energy.

SYNOPSIS

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The proposed ordinance adds solar energy systems and small wind energy systems as accessory uses within all zoning districts; sets standards for these systems to ensure protection of the character of the zones, as well as public health, safety and welfare; and adds definitions for such systems to the *Zoning Ordinance*.

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DSEC
Delaware Solar Energy Coalition

Proposed Ordinance #2011-01 - Amendment to Appendix B - Zoning, Article 5 - Supplementary Regulations, (New) Section 20 - Solar and Small Wind Energy Systems

Comments to Utility Committee for January 10, 2011 meeting

The Delaware Solar Energy Collation applauds the City of Dover's efforts to standardized and simplify the process of permitting solar power installations.

We have reviewed the draft ordinance and would like to make three comments.

1. **Section 20.11 restricts the installation of solar panels in residential areas to roof mounted only, prohibiting ground mounted solar arrays.**

Prohibiting free standing solar panels in residential zones is in direct opposition to Delaware Title 25, Chapter 3, Section 318, which states:

(f) No covenant, restriction, or condition contained in a deed, contract, or other legal instrument which affects the transfer, sale, or any other interest in real property, which is zoned for residential use and the lot or lots are 1/2 of an acre or greater in size, that prohibits or unreasonably restricts the owner of the property from installing or using a ground mounted system for obtaining solar energy on that owner's property shall be allowed in any deed, contract or other legal instrument. A covenant, restriction, or condition which requires that fencing, landscaping, or other appropriate means be used to shield the system from view, so that it is not readily visible from adjacent streets shall be deemed to be a reasonable restriction.

We request that the blanket prohibition be removed from the draft ordinance.

2. **Section 20.21 (a) limits ground mounted solar to a maximum of 25% of the lot size in non residential zonings.**

Ground mounted solar arrays do not have sufficiency unique properties to justify placing additional lot coverage restrictions that are in excess of coverage restrictions for other uses. This provision, if adopted, would prohibit property owners from fully enjoying the best use of their property despite compliance with all other zoning regualtions.

3. **Section 20.21 (c) prohibits ground mounted solar from being installed between the primary structure and the street on non-residential properties.**

As ground-mounted solar arrays must comply with existing setbacks per 20.21 (d.), they should not be subject to this additional restriction. It is possible a non residential parcel could be bounded by streets on two or more sides, rendering it useable under this provision. Also, on a large parcel, an existing "principle structure" may be located in such a manner as to make significant portions of the parcel unusable, even though those portions would be usable by setback requirements. As it would not be prohibited to build other structures on these sections of the parcel, it should not be prohibited to build a solar energy structure.

Thank you for considering of these comments.

Dale Davis

President
Delaware Solar Energy Coalition

Ground Mount Solar Array Quick Facts

- **Low profile**
  - Minimal to no visual blight (see following pictures)
- **No noise pollution**
  - Large utility scale arrays may have axis tracker motor to follow the sun
- **No moving parts** to create potentially hazardous conditions
  - IE: wind blades and wind towers

Manufacturing, labor, installation, financial and other considerations play an important role in solar pricing. Maximizing potential land area for ground mounted solar positively impacts the various factors above and lowers the final cost to the owner.

Limiting useable area would essentially discourage future development of solar in the City.

Basic rules of thumb:

- Roughly 100 square feet needed for 1 kilowatt of solar installed
- Roughly 4-5 acres for 1 megawatt of solar installed

Utilizing appropriate building setbacks and height requirements for the respective zoning district would properly reduce and limit the impacts, if any, of solar ground arrays.

AERCA
ADVISORS