



MEMO

From: Dan DiVito

Subject: Permit Application Procedure for Alternative Energy Systems

Permit application procedures and fees have been modified to comply with the text amendments approved by the county Commissioners. Please review Ordinance #ORD-09-04 (attached). We have tried to simplify the process as much as possible to facilitate easy application process for both the public and our staff.

Solar Panels

1. Electrical permit only is required
 - a. Application shall include:
 - i. Scaled Plot Plan (ONLY IF FREE STANDING)
 - ii. Physical size and number of panels (see section 4.25)
 - iii. Size of the system in KW's (Kilowatts)
 - iv. Drawing showing the "foot print" of the existing building (see section 4.25 (3))
 - v. If system is to be installed on or attached to an existing structure, sealed engineering design indicating structural sufficiency to accommodate additional loading.
 - vi. Manufacturer's installation instructions (including engineering if required)
 - vii. Make sure that the question referring to solar easement has been answered. (Section 4.25 #(8)) on both application and on table screen. (yes/no check box)
 - viii. If system is less than 373 KW and is installed with equipment that prevents the flow of electricity to the system when the system is out of service, Public Service Commission approvals NOT required.
 - b. Fees
 - i. Residential - \$80 plus \$50 for 1- 10 KW. - \$75 for every additional 20 KW
 - ii. Commercial - \$165 plus \$100 for first 25 KW - \$75 for every additional 20 KW

Wind Turbines

2. Electrical permit only is required
 - a. Application shall include:
 - i. Scaled Plot Plan
 - ii. Physical size and number of turbines (see section 4.24(a)(1-12)
 - iii. If system is to be installed on or attached to an existing structure, sealed engineering design indicating structural sufficiency to accommodate additional loading.
 - iv. Manufacturer's installation instructions (including sealed engineering)
 - v. If the Wind Energy System is to be connected to the main power grid and system is less than 373 KW and is installed with equipment that prevents the flow of electricity to the system when the system is out of service, Public Service Commission approvals NOT required.
 - vi. Sealed Engineered design for foundation construction.
3. Fees
 - a. Residential - \$80 plus \$100 for each turbine
 - b. Commercial - \$165 plus \$300 for each turbine

There will be several variables on each project that will require additional information. When in doubt, please ask me or a plan reviewer for guidance.

ORDINANCE NO. ORD-09-04

**AN ORDINANCE TO AMEND CERTAIN PROVISIONS TO THE
ZONING ORDINANCE FOR WASHINGTON COUNTY, MARYLAND
AND TO REENACT SAID ORDINANCE WITH CHANGES RELATING
TO ITS TEXT**
(RZ-09-004)

RECITALS

The Board of County Commissioners of Washington County, Maryland (the "Board") adopted the Zoning Ordinance for Washington County, Maryland (the "Ordinance") on January 23, 1973, and it became effective on April 2, 1973.

The Division of Planning and Community Development filed an application requesting that amendments be made to the text of the Ordinance. The amendments consist of adding Sections 4.24 (Small Wind Energy Systems) and 4.25 (Solar Collection Systems) and amending Article 28A (Definitions) to allow for alternative energy sources as accessory uses under the Zoning Ordinance.

The Board believes it to be in the best interests of the citizens of Washington County for the amendments to be enacted.

The Washington County Planning Commission (the "Planning Commission") held a public meeting for the purpose of taking testimony on the proposed amendments on March 2, 2009, pursuant to public notice duly given.

The Board held a public hearing for the purpose of taking testimony on the proposed amendments on April 20, 2009, pursuant to notice duly given.

Following the hearings, the Board considered the recommendations of the Planning Commission and the Planning Department staff, and materials received as part of the public hearings. The Board conducted this review in a public session.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED that certain provisions of the Zoning Ordinance, as amended, be further amended as follows:

RZ-09-004

(1) **ARTICLE 4 – GENERAL PROVISIONS is amended as follows:**

Section 4 is amended by adding Sections 4.24 (Small Wind Energy Systems) and 4.25 (Solar Collection Systems) which shall read as follows:

Section 4.24 Small Wind Energy Systems

A Small Wind Energy System, as defined in Article 28A, shall be considered an accessory use in all zoning districts. The purpose of this section is to establish regulations to facilitate the installation and construction of Small Wind Energy Systems in Washington County for private

landowners, subject to reasonable restrictions which will preserve the public health and safety.

- (a) The following standards shall apply to the development of Small Wind Energy Systems:
1. **Setbacks.** A wind tower for a Small Wind Energy System shall be set back a distance equal to its total height plus an additional twenty (20) feet from:
 - a. any State or County right-of-way or the nearest edge of a State or County roadway, whichever is closer;
 - b. any right of ingress or egress on the owner's property;
 - c. any overhead utility line;
 - d. any property line;
 - e. any existing guy wire, anchor or other Small Wind Energy tower on the property; and
 2. **Access.**
 - a. All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
 - b. The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of fifteen (15) feet above the ground.
 3. **Electrical Wires.** All electrical wires associated with a Small Wind Energy System, other than wires necessary to connect the wind generator to the wind tower wiring, the wind tower wiring to the disconnect junction box, and the grounding wires shall be located underground.
 4. **Clearance.** The blade tip or vane of any Small Wind Energy System shall have a minimum ground clearance of fifteen (15) feet as measured at the lowest point of the arc of the blades.
 5. **Lighting.** A wind tower and generator shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration (FAA). Lighting of other parts of the Small Wind Energy Systems, such as appurtenant structures, shall be limited to that required for safety purposes, and shall be reasonably shielded from abutting properties.
 6. **Appearance, Color and Finish.** The wind generator and wind tower shall remain painted or finished the color of finish that was originally applied by the manufacturer.
 7. **Signs.** All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, wind tower, building, or other structure associated with a Small Wind Energy System visible from any public road shall be prohibited.
 8. **Code Compliance.** A Small Wind Energy System and all of its components shall comply with all applicable construction and electrical codes.

9. Utility notification and interconnection. Small Wind Energy Systems that connect to the electric utility shall comply with applicable Public Service Commission regulations.
10. Small Wind Energy Systems attached to any building shall not exceed the permitted height for principal structures within the zoning district plus twelve feet.
11. Meteorological towers shall be permitted under the same standards, permit requirements, restoration requirements, and permit procedures as a Small Wind Energy System.
12. Each property is eligible for two Small Wind Energy Systems only. In the A(R), EC and P Zoning Districts, additional Small Wind Energy Systems shall be permitted. The total number shall not exceed what is necessary to generate two times the amount of electricity for the established uses on the property in a calendar year.

(b) Public Service Commission

In accordance with the Maryland Annotated Code, Public Utilities Companies, Section 7-207.1, any property owner seeking to construct a Small Wind Energy System and connect such system to the main power grid with the capability of transporting energy back to their main power company shall apply to the Public Service Commission (PSC) for approval and provide documentation of such approval to Washington County prior to construction and issuance of a building permit.

(c) Noise

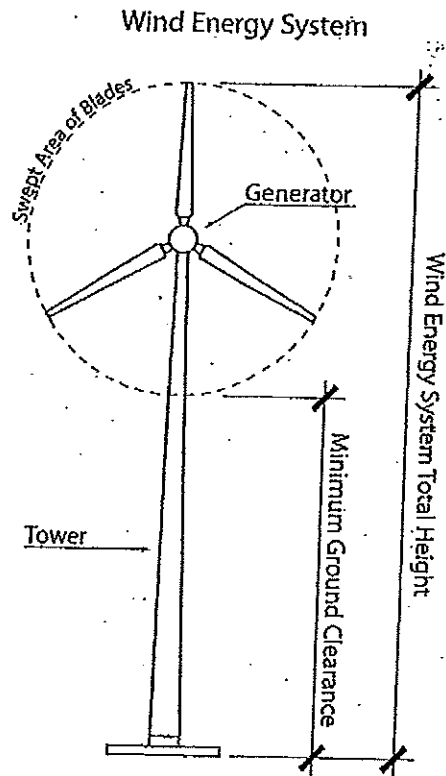
Audible sound due to Small Wind Energy System operations shall not exceed fifty-five (55) dBA for any period of time, when measured from the property line of any adjacent property improved with a dwelling unit at the time of the issuance of the zoning certificate. The level however may be exceeded during short-term events such as utility outages and/or severe windstorms.

(d) Electromagnetic Interference

The system shall be operated so that no disruptive electromagnetic interference is caused to off-site telecommunications, surveillance or other similar systems. If it has been demonstrated that a system is causing such disruptive interference, the system owner shall promptly eliminate the disruptive interference or cease operation of the system.

(e) Violations

It is unlawful for any person to construct, install, or operate a Small Wind Energy System that is not in compliance with this section or with any condition contained in a building permit issued pursuant to this section.



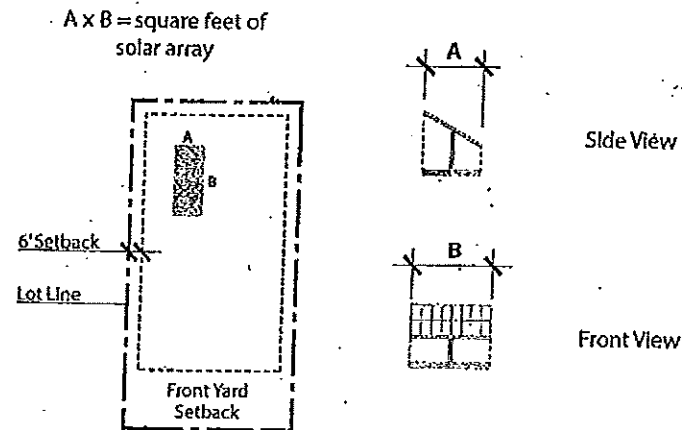
Section 4.25 Solar Collection Systems

Solar Collection Systems as defined in Section 28A shall be considered an accessory use in all zoning districts. The purpose of this section is to establish regulations to facilitate the installation and construction of Solar Arrays.

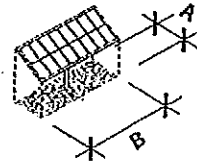
The following standards shall apply to the development of Solar Collection Systems:

1. Setbacks: Six (6) feet from all property lines and other structures.
2. Height: Freestanding Collection systems shall not exceed twenty (20) feet in height.
3. Size: Freestanding Collection systems on residential properties shall not exceed the greater of one-half (1/2) the footprint of the principal structure or six hundred (600) square feet, whichever is greater, except than in the A(R), EC, and P zoning districts, where they may be equal to the footprint of the structure. The size of arrays for non-residential properties shall not exceed the footprint of the principal structure.

SOLAR ARRAY



Area defined by drawing a line around the exterior limit of any individual component of the solar collection system may not exceed one-half of the footprint of the principal structure or 600 square feet, whichever is greater.



4. Solar Collection Systems are permitted to be located on the roof or exterior wall of a structure subject to the following:
 - a) Collection systems shall not extend more than twelve (12) feet above the roof line; and
 - b) Collection systems located on the roof or attached to a structure shall provide, as part of their permit application, a structural certification.
5. Code Compliance: Solar Collection Systems shall comply with all applicable building and electrical codes.
6. Solar collection systems may be located on accessory structures.
7. Collection systems located on an agricultural assessed property shall be permitted to have additional collection systems for each building on the property. The size of the system shall be limited to the need of the building.
8. A property owner who has installed or intends to install a solar collection system shall be responsible for negotiating with other property owners in the vicinity for any necessary solar easement and shall record the easement with the Clerk of the Court. A property owner who fails to secure an easement for the receipt of solar energy acts at his own peril and has no recourse against the person allowing or causing the obstruction of the owner's receipt of solar energy. Other property owners in the vicinity may obstruct solar energy unless a valid easement has been secured.

(2) **ARTICLE 28A– DEFINITIONS** is amended as follows:

The following definitions are added:

Meteorological Tower:

Defined to include the tower, base plate, anchors, guy wires and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment, anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

Small Wind Energy System:

Means a single-towered wind energy system that:

- A. is used to generate electricity;
- B. has a rated nameplate capacity of (50) kilowatts or less; and
- C. has a total height of one hundred fifty (150) feet or less.

Solar Array:

A ground mounted solar collection system consisting of a linked series of photovoltaic modules.

Solar Collection System:

A panel or other solar energy device, the primary purpose of which is to provide for the collection, inversion, storage, and distribution of solar energy for electricity generation, space heating, space cooling or water heating.

Wind Energy System:

Equipment that converts and stores or transfers energy from the wind into electricity or other usable forms of energy. This equipment includes any base, vane, blade, foundation, generator, alternator, tower, transformer, tail, wire, inverter, batteries, guy wire or other component used in the system.

Wind Energy System Rotor Diameter:

The cross sectional dimension of the circle swept by the rotating blades.

Wind Energy System Total Height:

The vertical distance from ground level to the tip of a wind generator vane or blade when the tip is at its highest point.

Wind Generator:


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

Wind Tower:

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

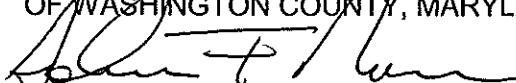
Adopted and effective this 16th day of June, 2009.

ATTEST:



Joni L. Bittner, Clerk

BOARD OF COUNTY COMMISSIONERS
OF WASHINGTON COUNTY, MARYLAND



John F. Barr, President

Approved as to legal
sufficiency:



Kirk C. Downey
Assistant County Attorney

Mail to:
Office of the County Attorney
100 W. Washington St., Rm. 202
Hagerstown, MD 21740