

## **CHAPTER 408: RENEWABLE ENERGY SYSTEMS**

Renewable Energy Systems are accessory uses which include Solar Energy Systems and Wind Energy Systems that provide supplemental energy to residential, non-residential, and mixed-use buildings.

### **SECTION 408.100: PURPOSE STATEMENT**

The purpose of this Section is to provide standards for the installation and use of Renewable Energy Systems as accessory uses within the Village of Wardsville. This Section seeks to protect properties from incompatible uses in the interest of property values, public health and the welfare of the community while promoting the use of alternative energy sources, where appropriate. This Section provides a process to facilitate the use of these systems in a manner that minimizes adverse impacts and the potential for nuisance.

### **SECTION 408.200: ACCESSORY USE**

Renewable Energy Systems shall be considered as an accessory use subject to the provisions of this Section. Solar Energy Systems and Wind Energy Systems are a conditional accessory use and shall be considered an accessory structure in all zoning districts subject to the approval of a Conditional Use Permit.

### **SECTION 408.300: REQUIREMENTS**

The requirements set forth in this Section shall govern the construction and/or installation of all Renewable Energy Systems:

1. Solar Energy Systems, General
  - a. Solar Energy Collectors shall be located in the least visible location from perspectives outside the property lines where panels would be reasonably, though not necessarily optimally, functional.
  - b. Solar Energy Collectors shall be documented by the manufacturer as being non-reflective pursuant to recognized engineering standards showing reflectivity of less than 30 percent or shall be placed such that concentrated sunlight or glare shall not be directed onto nearby properties or streets.
  - c. Solar energy equipment must comply with all setback and lot coverage requirements for the zoning district in which the property is located.
  - d. Building-integrated Solar Energy Systems shall be allowed regardless of visibility, provided the building-integrated system meets all required

setback, height and land use requirements for the district in which the building is located and is approved by the Planning and Zoning Committee.

2. Solar Energy Systems, Residential

a. Ground-mounted Solar Energy Systems:

(i) Ground-mounted Solar Energy Systems shall only be located in the side or rear yard of a property.

(ii) Ground-mounted Solar Energy Systems and supporting structures may not exceed a total height of 10 feet as measured from the average grade at the base of the supporting structure to the highest edge of the system.

(iii) Ground-mounted Solar Energy Systems must be substantially screened from public view (including adjacent properties and public rights-of-way) by fencing walls, plantings, or other architectural feature or any combination thereof; provided, however, that the screening shall not be required to be so dense, so tall, or so located as to render the equipment essentially non-functional.

b. Building-mounted Solar Energy Systems:

(i) Building-mounted Solar Energy Collectors installed in residential zoning districts shall be: (a) installed in the plane of the roof (flush mounted); or (b) made part of the roof design (capping or framing compatible with the color of the roof or structure); or (c) Building-integrated system. Mounting brackets shall be permitted to be placed parallel on the slope of a rear facing roof if the applicant can demonstrate that the existing pitch of the roof would render the solar energy equipment ineffective or incapable of reasonable operation.

(ii) When located on a sloped roof, Solar Energy Collectors shall be located on a rear or side facing roof, as viewed from a fronting street. In cases of corner lots or lots with more than one (1) street frontage the side roof fronting a street shall be considered a front facing roof.

(iii) Solar Energy Systems shall not project vertically above the peak of a sloped roof to which it is attached.

(iv) When located on a sloped roof, Solar Energy Collectors shall be positioned in a symmetrical fashion and centered on the plane of the roof on which they are located.

(v) When located on a sloped roof, Solar Energy Collectors shall be set back at least two (2) feet from any outside edge, ridge, or valley of the roof.

(vi) Solar Energy Collectors installed on a flat roof must be screened by the use of a parapet or other architectural feature to screen the view from the street or from ground level on adjoining properties.

(vii) All exterior electrical or plumbing lines must be painted in a color scheme that matches as closely as possible the color of the structure and the materials adjacent to the lines when visible from the street.

### 3. Solar Energy Systems, Non-residential

#### a. Ground-mounted Solar Energy Systems

(i) Ground-mounted Solar Energy Systems shall only be located in the side or rear yard of a property.

(ii) Ground-mounted Solar Energy Systems and supporting structures may not, in total, exceed the accessory structure height limitations for the zoning district in which the property is located. In commercial districts with no such requirement, a maximum height of 20 feet is hereby established. Height shall be measured from average grade at the base of the supporting structure to the highest edge of the system.

(iii) Ground-mounted Solar Energy Systems must be substantially screened from public view (including adjacent properties and public rights-of-way) by fencing, walls, plantings or other architectural feature or any combination thereof; provided, however, that screening shall not be required to be so dense, so tall or so located as to render the equipment essentially non-functional.

#### b. Building-mounted Solar Energy Systems

(i) Building-mounted Solar Energy Systems installed in commercial zoning districts shall be installed (a) in the plane of the roof (flush mounted); or (b) made part of the roof design (capping or framing compatible with the color of the roof or structure) or (c) a building integrated system. Mounting brackets shall be permitted if the applicant can demonstrate that the existing pitch of the roof would render the solar energy equipment ineffective or incapable of reasonable operation.

(ii) When located on a sloped roof, Solar Energy Collectors shall be located on a rear or side facing roof, as viewed from a fronting

street. In cases of corner lots or lots with more than one (1) street frontage, the side roof fronting a street shall be considered a front facing roof.

(iii) Solar Energy Systems shall not project vertically above the peak of a sloped roof to which it is attached.

(iv) When located on a sloped roof, Solar Energy Collectors shall be setback at least two (2) feet from any outside edge, ridge, or valley of the roof.

(v) Solar Energy Collectors installed on a flat roof may exceed the height of the building up to five (5) feet.

(vi) All exterior electrical or plumbing lines must be painted in a color scheme that matches as closely as possible the color of the structure and the materials adjacent to the lines when visible from the street.

#### 4. Wind Energy System, General

a. Wind Energy Systems are permitted on any non-residentially-zoned property, except that Building-integrated or Roof-mounted Wind Energy Systems are permitted for schools, universities, parks and other institutional uses located within a residential zoning district on a property containing at least five (5) acres subject to the requirements of this Section.

b. Ground-mounted Wind Energy Systems affixed to a monopole tower are permitted only in the Commercial zoning districts and shall be subject to Site Plan Review pursuant to this Chapter.

c. Noise shall not exceed Village of Wardsville noise ordinance standards as applicable to the building type. The applicant shall provide noise rating information at time of application.

d. A Wind Energy System shall not be located in the front yard of property in any zoning district or affixed to the side of a structure facing the frontage.

e. No more than one (1) Ground-mounted Wind Energy Systems may be installed on any commercially-zoned property. Building-integrated or Roof-mounted Wind Energy Systems shall not be subject to these limitations.

f. Wind Energy Systems shall be painted a neutral color so as to blend into the surroundings and shall not be bright, reflective or metallic. Illumination of Wind Energy Systems shall be prohibited, except as may be

required by any state or Federal agency of competent jurisdiction. No commercial signage or attention-getting device shall be permitted, except regulatory signage required by any local, state or Federal agency of competent jurisdiction.

g. Height: Ground-mounted Wind Energy Systems and their supporting structures are limited to a combined maximum height of one hundred (100) feet (tower mounted). Roof-mounted Wind Energy Systems shall not exceed a height of ten (10) feet above the peak roof height, except as modified through a Planned Unit Development or Special Development District procedure.

h. Setbacks: Wind Energy Systems must meet the principal use and accessory structure setback requirements of the district in which they are located if mounted directly on a roof or other elevated surface of a structure. If the Wind Energy System is attached to a free-standing tower, the setback from all property lines shall be a minimum of fifteen (15) feet. The setback shall be measured from the furthest outward extension of all moving parts.

#### SECTION 408.400: PROCEDURE FOR REVIEW

All applications for Renewable Energy System shall require the issuance of a Conditional Use Permit.

#### SECTION 408.500: BUILDING PERMITS REQUIRED

A building permit issued by the County of Cole is required prior to the installation of any renewable energy system. The owner of a Renewable Energy System shall ensure that it is installed and maintained in compliance with the applicable building, fire and safety codes adopted by the County and any other state or Federal agency of competent jurisdiction. All wiring associated with a Renewable Energy System shall be underground or contained within a raceway that complements the building materials of the principal structure.

#### SECTION 408.600: ABANDONMENT

Any Renewable Energy Systems that are noticeably in disrepair for a period exceeding six (6) months without repair or restoration procedures substantially underway shall be removed from the property and the structure and/or site restored.

#### SECTION 408.700: ALTERNATIVE COMPLIANCE

In unusual circumstances arising from the unique location or character of the proposed site and/or surrounding land uses or structures, if site-specific alternative standards would provide results that are equal to or superior to those which would be provided by the standards in this Section, the Board of Trustees may approve an applicant's request for alternative standards if in the body's judgment and purpose of

these regulations will be satisfied and the alternative standards will have no adverse impact on any other property or unreasonable disturb the peaceful occupancy of adjoining or nearby property.

1. Procedure. An application for alternative compliance standards shall be prepared and submitted to the Board of Trustees. The proposed alternative standards shall clearly identify and discuss the modifications and alternatives proposed and the ways in which the plan will better accomplish the intent of these design standards than would an approach which complies with these design standards. Nothing shall prevent the Board of Trustees from seeking input from the Planning and Zoning Committee and/or Public Works Committee upon receipt of such a request.

2. Review criteria. To approve an alternative approach, the Board of Trustees must find that the proposed alternative approach accomplishes the intent of these standards equally well or better than would an approach which complies with these standards and the alternative standards will have no adverse impact on any other property or unreasonably disturb the peaceful occupancy of adjoining or nearby property.