

## Proposed Amendments from National Grid Renewables

### Current Regulation:

#### 8.08.06 Setbacks

All towers shall adhere to the setbacks as measured from the hub established in the following table:

	WECS Wind Turbine – Commercial/Utility WECS	Meteorological Towers
Property Lines	Diameter plus applicable building setback; however, setback may be less when two adjoining property owners are within the aggregate project.	One times the total height
Dwelling units owned by non-participating landowners. *	2,000 ft.***	One times the total height
Road Rights-of-Way**	1.1 times the total height	One times the total height
Other Rights-of-Way	1.1 times the total height	One times the total height
Public Conservation Lands including Wildlife Management Areas and State Recreation Areas	1.1 times the total height	600 ft. or a distance established by any state or Federal agency.
Wetlands, USFW Types III, IV, and V	1.1 times the total height	600 ft. or a distance established by any state or Federal agency.
Other structures not on the applicant's site	One times the total height	One times the total height
River Bluffs of over 15 feet	One times the total height	One times the total height

\* The setback for dwelling units shall be reciprocal in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System.

\*\* The setback shall be measured from any future Rights-of-Way if a planned change or expanded right-of-way is known.

\*\*\* Unless an Impact Easement has been granted by the non-participating landowner

### Proposed amendment from National Grid Renewables:

In the setback chart at section 8.08.06, we propose a commercial wind turbine setback from “Wetlands, USFW Types III, IV and V” of “200 feet.”

That is consistent with the industry standard and with federal law. The federal Clean Water Act already regulates wetlands and requires developers to site turbines a certain distance from wetlands. In many cases, the federal setback will be even greater than 200 feet. Thus, to allow wind developers flexibility in working around federal requirements, we suggest a 200-foot wetlands setback under Knox County’s requirements.

## Proposed Amendments from National Grid Renewables

### Current Regulation:

#### 8.08.03 Definitions

The following are defined for the specific use of this section.

**Aggregate Project** shall mean projects that are developed and operated in a coordinated fashion, but which have multiple entities separately owning one or more of the individual WECS within the larger project. Associated infrastructure such as power lines and transformers that service the facility may be owned by a separate entity but are also part of the aggregated project.

### Proposed amendment from National Grid Renewables: (8.08.08 should be 8.08.03)

Standalone versus Associated Storage Systems. In our experience, the most effective regulations distinguish between stand-alone storage systems and associated storage systems that electrically connect to a wind or solar facility. The Nebraska Power Review Board, for instance, requires a separate permit for stand-alone storage systems but allows associated storage systems under the wind or solar facility's permit. See [Guidance Document No. 14](#). So, while we welcome the opportunity to work with you and Keith Marvin to prepare a separate section of regulations for stand-alone storage systems, we recommend permitting associated storage systems under the wind or solar facility's conditional use permit (like the Power Review Board does). The wind or solar facility's approval process and safety restrictions would thus likewise apply to the associated storage system. Specifically, we propose:

Amending section 8.08.08 as follows: Aggregate Project shall mean projects that are developed and operated in a coordinated fashion, but which have multiple entities separately owning one or more of the individual WECS within the larger project. Associated infrastructure such as power lines, batteries or other energy storage systems and transformers that service or store energy from the facility may be owned by a separate entity but are also part of the aggregated project.

## Proposed Amendments from National Grid Renewables

### Current Regulation definition:

**SOLAR CONVERSION SYSTEM (SCS):** An assembly, structure, or design, including passive elements, used for gathering, concentrating or absorbing direct or indirect solar energy, specifically designed for holding a substantial amount of useful thermal energy and to transfer that energy to a gas, solid or liquid or to use that energy directly; this may include, but is not limited to, a mechanism or process used for gathering solar energy through thermal gradients, or a component used to transfer thermal energy to a gas, solid or liquid or to convert into electricity.

### Proposed amendment from National Grid Renewables:

Amending section 8.23.01 as follows: SOLAR CONVERSION SYSTEM (SCS): An assembly, structure or design, including passive elements, batteries or other energy storage systems, used for gathering, concentrating, storing or absorbing direct or indirect solar energy, specifically designed for holding a substantial amount of useful thermal energy and to transfer that energy to a gas, solid or liquid or to use that energy directly; this may include, but is not limited to, a mechanism or process used for gathering solar energy through thermal gradients or a component used to transfer thermal energy to a gas, solid or liquid or to convert into electricity.

Definition of Solar Conversion Systems. While the matrix in section 4.07 uses the term “solar farm,” other provisions use and define “solar conversion system.” To maintain consistent usage, we propose replacing “solar farm” in section 4.07 with the defined term, “solar conversion system.”

## Proposed Amendments from National Grid Renewables

### Current Regulation definition:

#### 8.23.05(5)

##### 5. Discontinuation.

A CSCS shall be considered abandoned after one year without energy production. The solar equipment owner shall remove all SCS equipment and appurtenances within 90 days of abandonment.

#### 8.23.02(6)

6. Repowering: If any SCS is no longer operating for purposes of Repowering, replacement, or maintenance, Decommissioning provisions will not apply for up to six months. However, an SCS that is not operating or is operating at a substantially reduced capacity for more than six months will be considered abandoned and Decommissioning provisions will apply.

#### 8.23.03(5)(B)

B. Whenever, a ground mounted SCS is no longer operating, the property owner shall have six months to completely remove the structure and wiring. The location of the SCS shall be returned to a usable state based upon the surrounding property.

### Proposed amendment from National Grid Renewables:

Decommissioning of Commercial Solar Conversion Systems. Section 8.23.05(5) deems a commercial solar conversion system abandoned “after one year” without energy production. But section 8.23.02(6) deems any solar conversion system abandoned after “six months” without operation. To make these consistent, we propose making both “one year.” (That will also require updating section 8.23.03(5)(B) for individual solar conversion systems.)

### Current Regulation definition p.182:

C. Height: The average height of the solar panel arrays shall not exceed 12 feet.

### Proposed amendment from National Grid Renewables:

Height of Commercial Solar Conversion Systems. Section 8.23.05(2)(C) limits the average height of solar panel arrays to “12 feet.” To accommodate modern racking, we propose a limit of “20 feet” instead. Setbacks, landscape buffers and other restrictions would still provide adequate visibility protection to neighbors.