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NEW Section 17.61C
Community Wind Energy Systems

17.61C.010 Purpose

The purpose of this Chapter is to facilitate the installation and construction of community wind energy systems in Kittitas County subject to reasonable restrictions to protect life, health and safety.

17.61C.020 Definitions

As used in this Chapter the following terms shall have the meaning indicated:

1. **"Community Wind Energy System" (CWES)** shall mean wind energy conversion system which converts wind energy into electricity through the use of one or more wind turbine generators within the limits of Distributed Generation including a wind turbine, rotor blades, tower, foundation, and met tower, and associated control or conversion electronics, which is connected to a local utility grid and which is intended primarily to provide electricity commercially and provides ecological benefit and local economic benefit, lease payments and tax revenue associated with commercial projects, including local financing, local employment, and income to local owners of the CWES.
2. **"Conditional Use Permit" (CUP)** shall mean a special use permit as described in Ch. 17.60A KCC
3. **"County"** shall mean Kittitas County Government.
4. **"Distributed Generation"** shall have the same meaning as in RCW 19.285.030(9): an eligible renewable resource where the facility or any integrated cluster of generating units has a generating capacity of not more than five megawatts (5 MW). An eligible renewable resource or group of similar eligible renewable resources cannot be subdivided into amounts less than five megawatts solely to be considered distributed generation.
5. **"FAA"** shall mean the Federal Aviation Administration.
6. **"Met Tower"** (short for Meteorological) shall mean a temporary tower erected to measure wind speed and other atmospheric characteristics including all booms, guy wires, sensors, cables, power supply, and data logging equipment. The tower may be guyed or free-standing.
7. **"Primary Wind Direction"** shall mean the direction which the preponderance of wind energy enters a site, which will have a default value in Kittitas county of 300 degrees from true north (west by northwest), but a site-specific direction which can be proven by measurement, computer modeling, or the preponderance of tree flagging may be used instead of the default.
8. **"Rotor Diameter"** shall mean the diameter of a circle swept by a wind energy system's rotor.

9. **"Setback Easement"** shall mean a legal document from a neighboring property owner granting the owner of a CWES a waiver of one or more of the setback requirements in this Chapter or other municipal, county, state, or federal rule for the duration of the life of the CWES (including repowering with a substantially similar system).
10. **"Total Height"** shall mean, when referring to a Wind Turbine, the distance measured from the grade plane to the rotor blade tip when extended vertically to its highest point.
11. **"Wind Turbine"** shall mean the parts of the Community Wind Energy System, including the rotor blades, generator, housing, tower, etc.
12. **"Wind Farm"** shall mean wind energy projects exceeding the State definition of Distributed Generation. This definition supersedes and replaces the definition of Wind Farm given in *Kittitas County Zoning Code, Chapter 17.61A Wind Farm Resource Overlay Zone, 17.61A.020 Definitions.*
13. **"Contiguous Acres"** shall mean the total combined acreage of taxable parcels within Kittitas County that are adjacent and share a common property boundary or boundaries and are owned by the same participating landowner(s).

17.61C.030 Applicability

The requirements set forth in this Chapter shall govern the siting and permitting of Community Wind Energy Systems (CWES) used to generate mechanical or electrical energy to perform work, and which may be connected to the utility grid, such as pursuant to the Revised Code of Washington, Chapter 80.60 (Net Metering of Electricity), and serve as an independent source of energy, serve as part of a hybrid system, or feed the local electrical distribution system.

The requirements of this Chapter shall apply to Community Wind Energy Systems (CWES) proposed after the effective date of this Chapter. Any CWES for which a required permit has been properly issued prior to the effective date of this Chapter shall not be required to meet the requirements of this Chapter. No modification that increases the height of the CWES shall be allowed without full compliance with this Chapter.

17.61C.040 Regulatory Framework

1. **Principal or Accessory Use:** A CWES may be considered either a principal or an accessory use. A different existing use or an existing structure on the same lot shall not preclude the installation of a CWES or a part of such facility on such lot. Any CWES that is constructed and installed in accordance with the provisions of this Chapter shall not be deemed to constitute the expansion of a nonconforming use or structure.
2. **UGA:** No CWES shall be allowed within an UGA.
3. **Conditional Use Permit**: All wind turbines permitted under this Section 17.61C shall use the conditional use process of KCC 17.60A

17.61C.050 General Requirements

1. The number of wind turbines allowed per land owner shall be limited to one unless said land owner has 40 or more contiguous acres in which case the limit shall be the number of contiguous acres divided by 20 and rounded down. Turbines may be placed as appropriate anywhere on a land owner's contiguous acreage subject to setbacks and mitigation as determined in the conditional use process.
2. Under this Chapter, a CWES project is not allowed if it would cause the Distributed Generation total within a (1) one mile radius to exceed 5 MW.
3. The height and placement of a wind turbine shall be limited by the setbacks detailed in 5 below along with any setback easements obtained.
4. The following visual appearance, lighting and power-line requirements shall apply to all CWES.
    a. Wind Turbines shall be painted a non-reflective, non-obtrusive color. CWES towers shall maintain a non-reflective galvanized steel, off white or other non-reflective finish that blends with the natural setting and existing environment, unless FAA standards require otherwise, or it can be proven that some other finish is preferable to the local community.

b. At CWES sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the CWES to the natural setting and the existing environment.

c. No CWES shall be artificially lighted, except to the extent required by the FAA or other applicable authority.

d. No CWES shall be used for displaying any advertising except for reasonable identification of the manufacturer, owner, or operator on the nacelle of the turbine.

e. Electrical controls, control wiring and power lines shall be wireless or underground after reaching grade from the turbine and extending away from the base of the tower until meeting overhead utility lines.

5. Guyed, lattice, and monopole towers are allowed to support Wind Turbines.

a. Guyed towers shall be outfitted with appropriate bird flight diverters attached to the guy wires in order to minimize avian mortality.

b. Lattice type towers will consist of no horizontal members or shall include measures to minimize the opportunity for and to discourage bird roosting.

6. The following setback and tower height requirements shall apply to all CWES.

a. Each CWES shall be set back from the nearest property line a distance no less than one and one-half (1.5) times its Total Height, unless a signed setback easement from the neighboring landowner is provided.

b. Distance from Residences: At the time of application, each CWES shall be set back from the nearest existing non-participating landowner's residential structure a distance no less than four times its Total Height unless a signed setback easement from the neighboring landowner is provided. Each CWES shall be set back a distance no less than 1.0 times its Total Height from an existing residence of a participating landowner.

i. For purposes of this chapter, "residence" and "residential structure" is defined as the primary physical structure on a residential lot utilized as a single family home; as used herein, "residence" and "residential structure" includes the entire structure within the main walls and the eaves of the roof, but does not include uncovered decks, uncovered patios, or outbuildings.

ii. For purposes of this chapter, "existing residence" is defined as those residences constructed as of the date of application of the CWES for its CUP, or properties with vested rights to build as of that date.

iii. For purposes of this chapter, "non-participating landowner" is defined as a landowner with no interest, financial or otherwise, in the CWES.

iv. For purposes of this chapter, "participating landowner" is defined as a landowner with an interest in the CWES, which may include but not limited to, an ownership interest, signed property lease arrangement, or signed easement.

c. Communication lines, electrical lines, public and private roads and easements: Each CWES shall be set back from the nearest above-ground public or private non-participating electric power line, telephone line, public or private road or easement a distance no less than one and one-half (1.5) times it's Total Height. Variances shall only be granted for relief from this setback requirement for non-public easements.

d. Other Community Wind Energy Systems: A CWES may not be placed such that it substantially disturbs the wind flow into another CWES. A new CWES may not be placed such that another non-participating CWES falls within an egg-shaped exclusion zone around the new CWES defined by an axis along the primary wind direction. In the upwind direction the exclusion zone shall have a semicircular shape with a radius three times the Rotor Diameter of the new CWES. In the downwind direction the exclusion zone shall have a semi-elliptical shape extending eight times the Rotor Diameter of the new CWES along the axis downwind and extending three times the Rotor diameter of the new CWES in a direction perpendicular to the axis. In this way the new CWES will be at least three of its rotor diameters behind,

three to the side of, and eight in front of a pre-existing CWES. A new CWES may be placed closer to a pre-existing CWES if a setback easement is provided by the owners of the pre-existing CWES.

e. A minimum safety setback of one (1.0) times the Total Height of each CWES shall be maintained between each CWES and all structures.

7. Audible sound due to CWES operations shall not exceed (55) dB(A)for any period of time as measured at the closest neighboring inhabited dwelling existing on the date of approval of any CWES Conditional Use Permit, unless the owner of said dwelling signs a setback easement relieving the CWES owner of these noise requirements. The sound level may, however, be exceeded during short-term events such as utility outages and severe wind storms.

8. For effective Wind Turbine performance, the bottom of the rotor should be 30 feet above any obstacles within 500 feet. If for some reason a Wind Turbine is installed counter to this recommendation, in no case shall the bottom of the rotor come within 15 feet of ground level unless acceptable safety measures are applied.

9. The following safety requirements shall apply to all CWES.

   a. All CWES towers shall not be climbable up to 15 feet above ground level.

   b. All electrical equipment shall be safely and appropriately enclosed from unintentional access by means such as barrier fencing, equipment cabinetry, or similar means. All access doors to electrical equipment shall remain locked, unless access is necessary.

   c. Appropriate warning signage (i.e., electrical hazards) shall be placed on CWES equipment.

   d. All CWES shall be equipped with manual and/or automatic overspeed controls to limit rotation of the rotor blades to a speed below the designed limits of the system.

10. All CWES shall comply with all current adopted Kittitas County Codes and Ordinances and all other current adopted Federal and State Requirements.

    a. All CWES must comply with all regulations of the Federal Aviation Administration (FAA), including any necessary approvals for installations close to airports and structures taller than 200 feet.

    b. All CWES shall comply with all applicable sections of the Washington State Building Code and adopted International Building Codes.

    c. All CWES shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical Code (NEC).

    d. All CWES that are connected to the utility grid shall comply with the appropriate Federal, State and local laws and regulations.

17.61C.060 Permit Application Requirements

In addition to all other Building Permit Application requirements, the following items shall be provided by the applicant for a CWES Building Permit Application.

1. Description of the project including specific information on the type, size, rotor material and diameter, rater power output, performance, safety, and maximum noise characteristics of the system, including name and address of the manufacturer, and model number.

2. A site plan showing:

   a. The planned location of the CWES on the parcel and type and location of any associated support structures.

   b. The location of and distance to all CWES setback lines, property lines, roads, adjacent properties, ROW's, any overhead utility and/or communication lines on the subject property and adjacent properties within 300 feet of the CWES base, and easements.

c. The location of all buildings on the parcel and immediately adjoining parcels, including the building(s) use.

3. A scaled representation of the CWES showing the system height and rotor diameter and evidence that the proposed height does not exceed the height recommended by the manufacturer of the system or any limitation contained in this Chapter.

4. Structural drawings and an engineering analysis from the CWES manufacturer or a licensed professional showing compliance with the current adopted Washington State Building Code and International Building Code. The engineering analysis must include a complete analysis of the tower, the tower foundation and the connection of the tower to the foundation. The engineering analysis must be completed by a licensed engineer, certified to practice in the State of Washington.

5. Description of emergency and normal shutdown procedures.

6. If a CWES is intended to be connected to the utility grid, the applicant must provide written documentation that the provider of electrical service to the property:

   a. Has been notified of the intent of the applicant to install an interconnected electricity generator to the electricity grid, and

   b. Has a process for interconnecting the proposed generator.

7. A construction traffic impact mitigation plan approved by the Kittitas County Director of Public Works. The plan must include the minimum following components:

   a. A monitoring program which provides an accurate evaluation of road conditions prior to and after construction of the project to identify road degradation.

   b. If construction of the project results in the degradation of existing pavement and/or shoulders on the County's roads, the project owner(s) shall reinstate the road(s) to their condition prior to construction.

8. Submit decommissioning and site restoration plan.

17.61C.070 Decommissioning Requirements

1. Prior to permit issuance, the Applicant shall provide to the County for its approval, a CWES decommissioning and site restoration plan (the " Decommissioning Plan"), prepared in sufficient detail to identify, evaluate, and resolve all major environmental, and public health and safety issues reasonably anticipated by the applicant on the date hereof. The Decommissioning Plan shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the CWES site or otherwise protect the public against risks or danger resulting from the Project. The Decommissioning Plan shall be prepared in detail commensurate with the time until site restoration is to begin.

2. Individual CWES proven to cause unanticipated significant adverse impacts on the environment not addressed in SEPA review for the CUP may have further operating conditions imposed by the Board of Adjustment (BOA) (reference County Code).

3. At any time a CWES is scheduled to be abandoned or is discontinued, as later described, the owner(s) shall notify the Building Official, Code enforcement Officer or designee by certified U.S. mail upon abandonment or discontinuation of use and; the owner shall physically remove the CWES within 12-months from the date of abandonment or discontinuation of use. The twelve (12) month period to perform the decommissioning may be extended at the discretion of the Building Official, Code Enforcement Officer, or designee if there is a delay caused by sources beyond the control of the Applicant including, but not limited to inclement weather conditions, equipment failure, wildlife considerations or the availability of cranes or equipment to support decommissioning. The County shall be granted reasonable access to the CWES site during decommissioning of the project for purposes of inspecting any decommissioning work or to perform decommissioning evaluations. If requested by the County, the Applicant will provide monthly status reports until this decommissioning

work is completed. Decommissioning shall occur in the order of removing the Wind Turbines as the first priority and performing the remaining elements immediately thereafter.

The term "physically remove" shall include, but not be limited to:

a. Removal of the wind turbine and tower and related above grade structures.

b. Removal of the foundations to a depth of no less than 3 feet below grade as approved in the Conditional Use Permit.

c. Removal of project access roads (except for any roads that the project landowners wish to retain).

d. Restoration of the location of the CWES to its natural condition, except that any landscaping, grading or below-grade foundation may remain in the after-conditions.

4. In the event an owner fails to give such notice as required in '2' above, the Building Official, Code Enforcement Officer or designee may presume a CWES is abandoned or discontinued if it has been out-of-service, or not generating power, for a continuous 12-month period. To determine if a project is not generating power, at the written request of the County, the Applicant shall demonstrate that the energy generated by the CWES for the past 12 month period is not less than 10% of the Historical Energy Production defined below and that no exemptions apply. Applicant shall prepare and maintain at all times during the life of the Project all records and data necessary to establish the Historical Energy Production of the Project. Applicant shall allow the County access to such records and data upon County's written notice as provided herein. The Applicant will be exempted from the decommissioning requirement if the twelve (12) month reduced energy output period described above is the result of (i) a repair, restoration or improvement to an integral part of the CWES that affects the generation of electricity that is being diligently pursued by the Applicant, or (ii) a Force Majeure Event, including, but not limited to, an extended low wind period. For these purposes, the Historical Energy Production shall be the sum of all energy generated by the CWES divided by the number of months since the beginning of operation multiplied by twelve, starting twelve months after operation commences.

5. If any CWES is out-of-service, or not generating power, for a period of 12 consecutive months, the Building Official, Code Enforcement Officer or designee may issue a Notice of Abandonment to the owner of the CWES. The owner shall have the right to respond to the Notice of Abandonment within 30 days from the Notice receipt date. The Building Official, Code Enforcement Officer or designee may withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides sufficient information to demonstrate that the CWES has not been abandoned.

6. If the owner fails to respond to the Notice of Abandonment or if after review by the Building Official, Code Enforcement Officer or designee it is determined that the CWES has been abandoned or discontinued, the owner of the CWES shall remove the CWES at the owner's sole expense within 12-months of receipt of the Notice of Abandonment. If the owner fails to physically remove the CWES after the Notice of Abandonment procedure, the County shall have the authority to enter the subject property and physically remove the CWES and to recover costs associated with that removal from the performance bond or surety.

7. As a condition of CWES permit approval, the applicant shall be required to provide a form of surety (i.e., post a bond, or establish an escrow account or other means) naming Kittitas County as the beneficiary at the time of building permit issuance to cover costs of CWES removal in the event the County must remove the facility. As part of the Decommissioning Plan, the Applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified professional. The decommissioning plan shall provide that the decommissioning funds shall be reevaluated every five years from the date of substantial completion of the CWES to ensure sufficient funds for decommissioning and, upon mutual agreement by the Applicant and the County at that time, the amount of decommissioning funds shall be adjusted accordingly. Prior to permit issuance, the Applicant shall provide the County with a copy of the following security device or another approved mechanism.

a. **Performance Bond.** Applicant or any Transferee, as the case may be, shall provide financial security for the performance of its decommissioning obligations through a Performance Bond issued by a surety registered with the Washington State Insurance Commissioner and is, at the time of delivery of the bond, is on the authorized insurance provider list published by the Insurance Commissioner. The Performance Bond shall be in an amount equal to one hundred and twenty percent (120%) of the Decommissioning costs. The Performance Bond shall be for a term of 1 year, shall be continuously renewed, extended, or replaced so that it remains in effect for the remaining term of the Conditional Use Permit or until the secured decommissioning obligations are satisfied, whichever occurs later. In order to ensure continuous renewal of the Performance Bond with no lapse, each Performance Bond shall be required to be extended or replaced at least one month in advance of its expiration date. Failure to secure such renewal or extension shall constitute a default of the Applicant under the Conditional Use Permit and under the Bond provisions and justify the county calling in the security and executing decommissioning therewith.