

**13.018 Commercial Wind Energy Conversion System (CWECS).**

A Commercial Wind Energy Conversion System (CWECS) may be allowed in the AG District by special permit under the conditions listed below:

(a) In cases where CWECS machines are part of a unified plan, parcels which are separated from one another only by the presence of public right-of-way may be combined into one special permit application. When a special permit covers multiple premises, the lease or easement holder may sign the application rather than the lot owner.

~~(a) Each CWECS machine shall be no less than 1,000 feet from any property line of a dwelling unit not associated with the project.~~

~~(b) The distance from all external boundary lot lines and/or right-of-way lines of the special permit to any tower support base of the CWECS shall be equal to the height of the tower plus the rotor radius.~~

~~(c) Each CWECS machine, including all equipment, shall have a sound emission rating of no more than 35 dBA. Noise levels caused from the CWECS machine(s) shall not exceed 35 dBA at the property line of any dwellings within a one mile radius of a CWECS machine. A noise study, incorporating both A and C weighted noise impacts on property within one mile may be required. Noise rating shall conform to International Electrotechnical Commission (IEC) standards unless otherwise directed by a government agency.~~

~~(d) (b) Machines shall meet all FAA requirements, including but not limited to lighting and radar interference issues. Strobe lighting shall be avoided if alternative lighting is allowed. Color and finish shall be white, gray or another non-obtrusive, non-reflective finish. There shall be no advertising, logo, or other symbols painted on the machine other than those required by the FAA or other governing body. Each machine shall have onsite a name plate which is clearly legible and contains contact information of the operator of the wind facility.~~

~~(e) All applicable electrical, building, utility tie-in codes and other government regulations shall apply.~~

~~(f) The distance from any tower base of a CWECS to any tower support base of another CWECS under other ownership shall be spaced a minimum of five (5) rotor diameters distance figured by the size of the largest rotor.~~

~~(g) (c) Each application shall have a decommissioning plan outlining the means, procedures and cost of removing the machine(s) and all related supporting infrastructure and a bond or equivalent enforceable resource to guarantee removal and restoration upon discontinuance, decommissioning or abandonment. Upon removal of the tower, there shall be four feet of soil between the ground level and cement base. Upon decommissioning, each tower shall have up to one year before removal.~~

~~(h) Said CWECS shall meet all Federal, State and local rules and regulations.~~

(d) Any proposed machine which is within half mile of any non-participating dwelling shall provide shadow flicker modeling data showing the expected effect of shadow flicker on non-participating properties. Shadow flicker shall not fall upon any non-participating dwelling, or other building which is occupied by humans, for more than 30 minutes in any one day, nor a total of 30 hours per any calendar year. If shadow flicker exceeds these limits, measures shall be taken to reduce the effects of shadow flicker on buildings, which may include shutting machine down during periods of shadow flicker.

(e) Construction and operation shall not impact identified rare or endangered natural resources such as saline wetlands, native prairie and grasslands.

(f) No CW ECS shall obstruct or impair an identified view corridor or scenic vista of public value, as mapped on the Capitol View Corridors map in the Lincoln/ Lancaster County Comprehensive Plan. The views from prominent environmental areas, such as Nine Mile Prairie and Spring Creek Prairie, shall also be protected from nearby intrusions. Any application which, upon initial review, poses a possible impact to these views will be required to be relocated or provide view shed mapping, and visual simulations from key observation points for review.

(g) Any single turbine shall not impact a vacant or occupied lot (of any size) to the extent that, which because of the location of turbine, the lot owner is left with little land outside of the CW ECS setbacks or the noise impact area, unless they are part of a contractual agreement with the CW ECS owner/operator.

(h) Setbacks:

- 1) For a non-participating lot of less than 10 acres, the setback shall be 1,000 feet or 3 times the hub height plus the rotor radius, whichever is greater, measured to the property line.
- 2) For non-participating lot of 10 acres or greater, when there is a dwelling unit on the lot, the setback shall be 1,000 feet or 3 times the hub height plus the rotor radius, whichever is greater, measured to the closest exterior wall of the dwelling unit.
- 3) For participating dwelling units, the setback shall be 1,000 feet to the closest exterior wall of the dwelling.
- 4) The setback to any public or private roadways shall be no less than the hub height plus the rotor radius of the turbine.
- 5) Setbacks to the external boundary of the special permit area shall be no less than the hub height plus the rotor radius of the turbine, except that the owner of the adjacent property may sign an agreement allowing that setback to be reduced to the rotor radius plus the setback of the district.

(i) Noise: No CW ECS or combination of CW ECS machine(s) shall be located as to cause an exceedance of the following as measured at the closest exterior wall of any dwelling located on the property. For both participating and nonparticipating properties:

(1) From the hours of 7 am to 10 pm:

- Forty (40) dBA maximum 10 minute Leq or;
- Three (3) dBA maximum 10 minute Leq above background level as determined by a pre-construction noise study. The background level shall be a Leq measured over a representative 15 hour period.

(2) From the hours of 10 pm to 7 am:

- Thirty-seven (37) dBA maximum 10 minute Leq or;
- Three (3) dBA maximum 10 minute Leq above background level as determined by a pre-construction noise study. The background level shall be a Leq measured over a representative 9 hour period.

(j) A pre-construction noise study on property with a dwelling within one mile of a tower support base shall be required. The protocol and methodology for such studies shall be submitted to the Lincoln-Lancaster County Health Department for review and approval. The results of such studies shall be submitted to the Lincoln-Lancaster County Health Department for review.

(k) Prior to the commencement of construction of any CW ECS machine, pre-construction noise monitoring may be conducted to determine ambient sound levels in accordance with procedures acceptable to the Lincoln-Lancaster County Health Department.

(l) Prior to the commencement of construction of any CW ECS machine, the applicant shall enter into an agreement with the County Engineer regarding use of County roads during construction.

(m) At the discretion of the County Board, post-construction noise level measurements may be required to be performed in accordance with procedures acceptable to the Lincoln-Lancaster County Health Department.

(n) All noise complaints regarding the operation of any CW ECS shall be referred to the County Board. The County Board shall determine if noise monitoring shall be required to determine whether a violation has occurred.