

AMENDED PETITION TO AMEND THE WARREN COUNTY ZONING ORDINANCE

Pursuant to Article XIX of the Warren County Zoning Ordinance, the Board of Commissioners of Warren County proposes amendments, described below, to the Warren County Zoning Ordinance, and requests that the Area Plan Commission schedule a public hearing to consider this Petition. The Proposed Amendments to the Warren County Zoning Ordinance relate to Wind Energy Conversion Systems' (WECS) setbacks and noise regulations, as follows:

Amendment 1: (This Amendment received a sufficient vote at the Area Plan Commission's hearing on April 9, 2019, and so it needs no further hearing).

Amend Section 1.5.1 of the Warren County Zoning Ordinance's Wind Energy Conversion Systems (WECS) Siting Regulations ("WECS Siting Regulations") to change residential setback distance measurements as follows:

FROM: "Residential dwellings, measured from the center of the WECS to the nearest corner of the structure."

TO: "Residential dwellings, measured from the center of the WECS to ^{the} residential dwelling's nearest adjacent property line."

Amendment 2 (Alternative A): Amend Section 1.5.1 of the WECS Siting Regulations to increase the setback from residential dwellings as follows:

FROM: "Distance from a residential dwelling, measured from the center of the WECS to the nearest corner of the structure: One thousand two hundred fifty (1,250) feet for non-participating landowners.¹ Subject to BZA approval, the setback requirement may be waived, in writing, by participating landowners.

¹The setback for residential dwellings shall be reciprocal in that no residential dwelling shall be constructed within one thousand two hundred fifty (1,250) feet of a COMMERCIAL WECS."

TO: "Distance from a residential dwelling, measured from the center of the WECS to the nearest corner of the structure: The greater of two thousand five hundred (2,500) feet or 1.1 times the total height of the WECS tower where the blade is at its highest point, for non-participating landowners.¹ Subject to BZA approval, the setback requirement may be waived, in writing, by participating and non-participating landowners.

¹The setback for residential dwellings shall be reciprocal in that no residential dwelling shall be constructed within the greater of two thousand five hundred (2,500) feet or 1.1 times the total height of the WECS tower where the blade is at its highest point, of a COMMERCIAL WECS unless waived, in writing, and approved by the BZA."

Amendment 2 (Alternative B): Amend Section 1.5.1 of the WECS Siting Regulations to increase the setback from adjoining property lines as follows:

FROM: “Distance from a property line, measured from the center of the WECS to the property line: Seven Hundred fifty (750) feet for non-participating landowners. Subject to BZA approval, the setback requirement may be waived, in writing, by participating landowners.”

“Distance from a residential dwelling, measured from the center of the WECS to the nearest corner of the structure: One thousand two hundred fifty (1,250) feet for non-participating landowners.¹ Subject to BZA approval, the setback requirement may be waived, in writing, by participating landowners.

¹The setback for residential dwellings shall be reciprocal in that no residential dwelling shall be constructed within one thousand two hundred fifty (1,250) feet of a COMMERCIAL WECS.”

TO: “Wind Turbines must be 2500' from adjoining property lines unless the adjoining property owner signs a waiver allowing a lesser distance. In that case the wind turbine must still be 2500' from the property line of any property owner who does not sign a waiver.”

Amendment 3: Amend Section 1.11.3 of the WECS Siting Regulations to re-insert Subsection C relating to noise profiles as follows:

FROM: Deleted in its entirety by Resolution 2016-018 on August 4, 2016.

TO: "C. Noise Profile, to include without limitation:

1. The make and model of the turbines.
2. Sound Power Levels (L_w) for each turbine for each one-third octave band from 6.3 Hz up through 10,000 Hz.
3. A pre-construction noise study for each proposed Wind Turbine location (ambient noise profile) showing background dBA and dBC sound levels (L₉₀ (10 min)) over one or more valid ten (10) minute continuous measurement periods for each turbine location, nearest dwelling and nearest non-participating owner's property line. The ambient noise levels shall be the L_{90A} sound descriptor measured during a preconstruction noise study during the quietest time of night (10 pm until 4 am).
4. A projection showing the expected dBA and dBC sound levels computed using the one-third octave band sound power levels (L_w) with appropriate corrections for modeling and measurement accuracy tolerances and directional patterns of the WECS for all areas within and to one (1) mile from the project boundary for the wind speed, direction and operating mode that would result in the worst case WECS sound emissions. The projection may be by means of computer model but shall include a description of all assumptions made in the model's construction and algorithms. If the model does not consider the effects of wind direction, geography of the terrain, and/or the effects of reinforcement from coherent sounds or tones from the turbines these should be identified and other means used to adjust the model's output to account for these factors. These results may be displayed as a contour map of the predicted levels, but should also include a table showing the predicted levels at noise-sensitive receptor sites and residences within the model's boundaries. The predicted values must include dBA and dBC values but shall also include un-weighted octave band sound pressure levels from 8k Hz to 10k Hz in data tables.
5. The Zoning Office will refer the applicant's information and sound studies to a Qualified Independent Acoustical Consultant for review and a determination whether the proposed WECS will, based on pre-construction studies and sound modeling, comply with the sound limits set forth in this Ordinance."

Amendment 4: Amend Section 1.7.3 of the WECS Siting Regulation, repealing and replacing the existing Noise and Vibration standards as follows:

FROM: Noise Standard that apply to Commercial WECS:

At no point within two hundred (200) feet of a residential dwelling may the sound pressure levels from a wind turbine exceed the following sound levels. Sound levels shall be measured with an octave band analyzer or sound level meter and associated filter manufactured in compliance with standards prescribed by the American National Standards Institute (ANSI).

Octave Bands for Warren County in Hertz (Hz), per ANSI	Maximum Permitted Sound Level (In decibels) measured 200 feet from edge of any residential dwelling
63	75
125	70
250	65
500	59
1000	53
2000	48
4000	44
8000	41

TO: Noise Standard that apply to Commercial WECS:

At no point on an adjoining property, including within a dwelling on that property, may the sound pressure levels from a wind turbine exceed the following sound levels unless the adjoining property owner signs a waiver allowing a greater sound level. Sound levels shall be measured with an octave band analyzer or sound level meter and associated filter manufactured in compliance with standards prescribed by the American National Standards Institute (ANSI).

Octave Bands (Hz) decibels	Maximum Permitted Sound Level in (dBa or dBc Leq (1 hr) as appropriate)
2	45
4	45
8	45
16	45
31.5	45
63	45
125	45
250	45
500	45
1000	45
2000	45
4000	44
8000	41

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ATTEST:

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