

CHAPTER 09A WIND ENERGY CONVERSION SYSTEMS

Section 09A.01 Intent

The purpose of this section is to provide guidelines for the location and installation of wind energy conversion systems, wind farms, and WECS Overlay Zoning Districts.

Section 09A.02 Micro WECS

(a) **Application Process.** Applicant shall submit the following materials:

- (1) A WECS Improvement Location Permit Application,
- (2) Site Plan, with the following additional requirements:
 - a. Location of the Micro WECS,
 - b. Structures within a distance of 2 times the total height,
 - c. All overhead utilities within a distance of 2 times the total height, &
 - d. Location of exterior wiring associated with Micro WECS.
- (3) A copy of the interconnection agreement for grid-connected systems,
- (4) Letters:
 - a. Letters from affected properties granting waiver of setback or sound requirements, if applicable,
 - b. Letter of non-objection or similar from the FAA, as necessary,
- (5) A maintenance plan,
- (6) System Specifications: &
 - a. Manufacturer and model,
 - b. Total system height, rotor size, ground or building clearance,
 - c. Tower and tower foundation blueprints or drawings for tower-mounted systems, &
 - d. One or three line electrical diagram.
- (7) Other materials deemed necessary by the Plan Director to ensure compliance with this Ordinance.
- (8) **Expiration.** The permit shall expire if:
 - a. The Micro WECS is not installed within one (1) year. A one (1) year extension may be granted,
 - b. The Micro WECS is declared abandoned, or
 - c. The Micro WECS is declared unsafe.

(b) **Zoning.**

Micro WECS shall be a permitted use in all zones.

(c) **Height.**

- (1) Building-mounted Micro WECS shall not extend more than fifteen (15) feet above the highest point of the structure it is attached to.

- (2) Tower-mounted Micro WECS shall have a total height not taller than the tallest permitted primary structure building height for the zone in which it is located.

(d) **Setbacks.**

- (1) The setback shall be measured horizontally from the center of the base of the tower for tower-mounted Micro WECS and from the edge of the swept area for building-mounted Micro WECS.
- (2) The minimum setback for tower-mounted Micro WECS from non-participating property lines shall be the required minimum setback for an accessory structure for the zone in which it is located.
- (3) The minimum setback for tower-mounted Micro WECS from any structures, parking areas, or commonly used outdoor areas on non-participating properties, public road right-of-ways, and overhead utilities shall be 1.1 times the total height.
- (4) Tower-mounted Micro WECS shall be setback so that the fall zone does not extend into the buildable area for a primary structure on non-participating properties.
- (5) The minimum setback for an experimental Micro WECS shall be double the required minimum setback.
- (6) The minimum setback from non-participating property lines for guy wires shall be the required minimum setback for an accessory structure in the zone in which it is located or ten (10) feet, whichever is less.
- (7) Setbacks may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(e) **Sound.**

- (1) Sound shall be measured at non-participating property lines and road right-of-ways.
- (2) All Micro WECS shall comply with the County noise regulations as defined in Section 10.07 of the Steuben County Zoning Ordinance, except for during short-term events, such as severe wind storms and utility outages.
- (3) If the ambient sound level exceeds the above standards, the maximum sound level shall be ambient sound level + 5 dB.
- (4) Sound requirements may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(f) **Interference.**

The applicant, owner, or operator shall eliminate or mitigate any interference with electromagnetic communication signals, such as radio, television, microwave, or wireless internet signals.

(g) **Safety.**

(1) **Access.**

- a. The tower shall not be climbable for a height of eight (8) feet above the ground unless the applicant proves it would not be a public hazard.
- b. All access doors to the tower and exterior electrical equipment shall be locked when not attended.

(2) Operation.

- a. The operator shall keep a maintenance record, which shall be produced in a timely manner upon request for inspection by the County. Such request may be made up to one (1) time per year.
- b. All Micro WECS shall be equipped with both automatic and manual overspeed controls.
- c. All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.

(3) Clearance.

- a. Horizontal-axis Micro WECS shall have a minimum ground clearance of twelve (12) feet.
- b. Vertical-axis Micro WECS shall have a minimum ground clearance necessary to not be a hazard.
- c. Building-mounted Micro WECS shall have a minimum building clearance from the swept area equal to the blade length.

(4) All Micro WECS shall display appropriate warning signs, such as electrical warnings and emergency contact information.

(5) All guy wires shall be clearly visible to a height of six (6) feet above ground level.

(h) Standards.**(1) Towers.**

- a. A tower-mounted Micro WECS may be mounted on guyed, lattice, freestanding, or monopole towers.
- b. A tower-mounted Micro WECS in a Lake Residential zone shall be mounted on a monopole tower only.
- c. An engineering analysis may be required for building-mounted Micro WECS.

(2) Appearance.

- a. Micro WECS shall be a non-obtrusive, non-reflective color.
- b. Alternative color schemes may be approved without requiring a variance, if the following conditions are met:
 1. The proposed color scheme is consistent with FAA guidelines,
 2. Darker colored blades may be allowed to reduce icing concerns, &
 3. The proposed color scheme will better serve the intent of this Ordinance.
- c. The system shall be maintained in good condition and appearance at all times, consistent with industry standards.
- d. Systems shall not display any commercial advertising, except for a reasonable display of the owner, operator, or manufacturer.

(3) Wiring.

- a. All exterior wiring connections to the Micro WECS shall be installed underground.
- b. Wiring may be above ground if the following conditions are met:
 1. Above ground wiring will better serve the intent of this Ordinance,
 2. It will not create an undue safety hazard, &
 3. Burying of wires will cause an excessive hardship.

(4) **Lighting.**

- a. Micro WECS shall have no lighting unless required by the FAA.
- b. Tower lighting shall be the lowest intensity allowable by the FAA.
- c. Tower lighting shall not be strobe or pulsating unless required by the FAA.
- d. Strobe lighting shall be preferred to pulsating lighting.
- e. Tower lighting shall be shielded to the maximum extent possible to reduce glare and visibility from the ground.

(5) **Number.**

- a. There shall be no more than two (2) Micro WECS per acre.
- b. There shall be no more than five (5) Micro WECS on any parcel.

(i) **Decommissioning/Removal.**

- (1) Any Micro WECS which has not produced electricity for a period of twelve (12) months shall be considered abandoned.
- (2) Abandoned Micro WECS shall be removed or reconditioned at the owner's expense within three (3) months notice to take action.
- (3) Unsafe Micro WECS shall be removed or made safe within a reasonable time as determined by the Plan Director.
- (4) The County may remove any abandoned or unsafe Micro WECS not removed or reconditioned by the owner within the allowed time at the owner's expense.

Section 09A.03 Small WECS and MET Towers

(a) **Application Process.** Applicant shall submit the following materials:

- (1) A WECS Improvement Location Permit Application,
- (2) Site Plan, with the following additional requirements:
 - a. Location of the Small WECS or MET Tower,
 - b. Structures within a distance of 2 times the total height,
 - c. All overhead utilities within a distance of 2 times the total height, &
 - d. Location of exterior wiring associated with Small WECS or MET Tower.
- (3) GIS Mapping and Addressing Form,
- (4) A copy of the interconnection agreement for grid-connected systems,
- (5) Letters:
 - a. Letters from affected properties granting waiver of setback or sound requirements, if applicable,
 - b. Letter of non-objection or similar from the FAA, as necessary,
- (6) A maintenance plan,
- (7) A sound-level analysis,

- (8) System Specifications: &
 - a. Manufacturer and model,
 - b. Total system height, rotor size, ground clearance,
 - c. Tower and tower foundation blueprints or drawings, &
 - d. One or three line electrical diagram.
- (9) Other materials deemed necessary by the Plan Director to ensure compliance with this Ordinance.
- (10) Expiration. The permit shall expire if:
 - a. The Small WECS or MET Tower is not installed within one (1) year. A one (1) year extension may be granted,
 - b. The Small WECS or MET Tower is declared abandoned, or
 - c. The Small WECS or MET Tower is declared unsafe.

(b) **Zoning.**

- (1) Small WECS and MET Towers shall be a permitted use in the following zones: Agriculture, Environmental Control, Residence-2, Residence-3, Local Business, General Business, Accommodation Business, Industrial-1, and Industrial-2.
- (2) Small WECS shall be a special exception use in the following zones: Lake Residence, Residence-1, and Manufactured Home.

(c) **Height.**

- (1) Small WECS and MET Towers on parcels less than two (2) acres in size shall have a total height of less than one hundred (100) feet or forty (40) feet above any tree lines within a distance of two (2) times the total system height, whichever is greater.
- (2) Small WECS and MET Towers on parcels two (2) acres and larger shall have a total height of less than two hundred (200) feet.
- (3) Small WECS and MET Towers shall comply with all applicable FAA rules and regulations.

(d) **Setbacks.**

- (1) The setback shall be measured horizontally from the center of the base of the tower.
- (2) The minimum setback for Small WECS from non-participating property lines shall be the required setback for a primary structure for the zone in which it is located.
- (3) The minimum setback for Small WECS from any structures, parking areas, or commonly used outdoor areas on non-participating properties, right-of-ways, overhead utilities, lakes, rivers, and wetlands shall be 1.1 times the total height.
- (4) Small WECS shall be setback so that the fall zone does not extend into the buildable area for a primary structure on non-participating properties.
- (5) The minimum setback for an experimental Small WECS shall be double the required minimum setback.
- (6) The minimum setback for MET Tower from habitable structures, non-participating properties, and right-of-ways shall be 1.1 times the fall zone.
- (7) The minimum setback from property lines for guy wires shall be the required minimum setback for an accessory structure in the zone in which it is located or ten (10) feet, whichever is less.

(8) Setbacks may be reduced without requiring a variance if the following conditions are met:

- a. Such reduction will better serve the intent of this Ordinance, &
- b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(e) **Sound.**

- (1) Sound shall be measured at non-participating property lines and road right-of-ways.
- (2) All Small WECS shall comply with the County noise regulations as defined in Section 10.07 of the Steuben County Zoning Ordinance, except for during short term events, such as severe wind storms and utility outages.
- (3) If the ambient sound level exceeds the above standards, the maximum sound level shall be ambient sound level + 5 dB.
- (4) Sound requirements may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(f) **Interference.**

The applicant, owner, or operator shall eliminate or mitigate any interference with electromagnetic communication signals, such as radio, television, microwave, or wireless internet signals.

(g) **Safety.**

(1) **Access.**

- a. The tower shall not be climbable for a height of ten (10) feet above the ground unless the applicant proves it would not be a public hazard.
- b. All access doors to the tower and exterior electrical equipment shall be locked when not attended.

(2) **Operation.**

- a. The operator shall keep a maintenance record which shall be produced in a timely manner upon request for inspection by the County. Such request may be made up to one (1) time per year.
- b. All Small WECS shall be equipped with both automatic and manual overspeed controls.
- c. All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.

(3) **Clearance.**

- a. Horizontal-axis Small WECS shall have a minimum ground clearance of twelve (12) feet.
- b. Vertical-axis Small WECS shall have a minimum ground clearance necessary to not be a hazard.

(4) All Small WECS shall display appropriate warning signs, such as electrical warnings and emergency contact information.

(5) All guy wires shall be clearly visible to a height of six (6) feet above ground level.

(h) **Standards.**

(1) **Towers.**

- a. A Small WECS or MET Tower may be mounted on guyed, lattice, freestanding, or monopole towers.
- b. A Small WECS located in a Lake Residential or Mobile Home zone shall be mounted on a monopole tower only.

(2) **Appearance.**

- a. Small WECS or MET Towers shall be a non-obtrusive, non-reflective color.
- b. Alternative color schemes may be approved without requiring a variance, if the following conditions are met:
 1. The proposed color scheme is consistent with FAA guidelines,
 2. Darker colored blades may be allowed to reduce icing concerns, &
 3. The proposed color scheme will better serve the intent of this Ordinance.
- c. The system shall be maintained in good condition and appearance at all times, consistent or better than industry standards.
- d. Systems shall not display any commercial advertising, except for a reasonable display of the owner, operator, or manufacturer.

(3) **Wiring.**

- a. All exterior wiring connections to the Small WECS or MET Tower shall be installed underground.
- b. Wiring shall be located at a depth to prevent any damage from freezing or frost and to prevent interference with drain tiles.
- c. Wiring may be above ground if the following conditions are met:
 1. Above ground wiring will better serve the intent of this Ordinance,
 2. It will not create an undue safety hazard, &
 3. Burying of wires will cause an excessive hardship.

(4) **Lighting.**

- a. Small WECS or MET Towers shall have no lighting unless required by the FAA.
- b. Tower lighting shall be the lowest intensity allowable by the FAA.
- c. Tower lighting shall not be strobe or pulsating unless required by the FAA.
- d. Strobe lighting shall be preferred to pulsating lighting.
- e. Tower lighting shall be shielded to the maximum extent possible to reduce glare and visibility from the ground.

(5) **Number.**

- a. There shall be no more than one (1) Small WECS or MET Tower per acre.
- b. There shall be no more than three (3) Small WECS or MET Towers on any parcel.

(i) **Decommissioning/Removal.**

- (1) Any Small WECS which has not produced electricity for a period of twelve (12) months shall be considered abandoned.
- (2) Abandoned Small WECS or MET Towers shall be removed or reconditioned at the owner's expense within three (3) months notice to take action.
- (3) Unsafe Small WECS or MET Towers shall be removed or made safe within a reasonable time as determined by the Plan Director.
- (4) The County may remove any abandoned or unsafe Small WECS or MET Towers not removed or reconditioned by the owner within the allowed time at the owner's expense.

Section 09A.04 Medium WECS

(a) **Application Process.** Applicant shall submit the following materials:

- (1) A WECS Improvement Location Permit Application,
- (2) Site Plan, with the following additional requirements:
 - a. Location of the Medium WECS,
 - b. Structures within a distance of 2 times the total height,
 - c. All overhead utilities within a distance of 2 times the total height, &
 - d. Location of exterior wiring associated with Medium WECS.
- (3) GIS Mapping and Addressing Form,
- (4) A copy of the interconnection agreement for grid-connected systems,
- (5) **Letters:**
 - a. Letters from affected properties granting waiver of setback or sound requirements, if applicable,
 - b. Letter of non-objection or similar from the FAA, as necessary,
- (6) A maintenance plan,
- (7) A sound-level analysis,
- (8) Certification by a licensed engineer that the tower design is sufficient to withstand wind load requirements for structures as defined by BOCA,
- (9) System Specifications:
 - a. Manufacturer & model,
 - b. Total system height, rotor size, ground clearance,
 - c. Tower and tower foundation blueprints or drawings, &
 - d. One or three line electrical diagram.
- (10) Decommissioning Plan, including: &
 - a. Anticipated life span of Medium WECS,
 - b. Estimated decommissioning costs, in current dollars, &
 - c. How costs for decommissioning will be paid.

- d. The County may require financial security consistent with County practices to pay for decommissioning.

(11) Other materials deemed necessary by the Plan Director to ensure compliance with this Ordinance.

(12) **Expiration.** The permit shall expire if:

- a. The Medium WECS is not installed within one (1) year. A one (1) year extension may be granted,
- b. The Medium WECS is declared abandoned, or
- c. The Medium WECS is declared unsafe.

(b) **Zoning.**

- (1) Medium WECS shall be a permitted use in the following zones: Agriculture, Industrial-1, and Industrial-2.
- (2) Medium WECS shall be a special exception use in the following zones: Environmental Control, Lake Residence, Residence-1, Residence-2, Residence-3, Manufactured Home, Local Business, General Business, and Accommodation Business.

(c) **Height.**

- (1) Medium WECS on parcels less than two (2) acres in size shall have a total height of less than one hundred (100) feet or forty (40) feet above any tree lines within a distance of three (3) times the total system height, whichever is greater.
- (2) Medium WECS on parcels two (2) acres and larger shall have a total height of less than two hundred (200) feet.
- (3) Medium WECS shall comply with all applicable FAA rules and regulations.

(d) **Setbacks.**

- (1) The setback shall be measured horizontally from the center of the base of the tower.
- (2) The minimum setback for Medium WECS from non-participating property lines and public lakes shall be 1.5 times the total height.
- (3) The minimum setback for Medium WECS from habitable structures on the participating properties, right-of-ways, overhead utilities, rivers, and wetlands shall be 1.1 times the total height.
- (4) The minimum setback for Medium WECS from habitable structures on non-participating properties shall be 2 times the total height.
- (5) The minimum setback for an experimental Medium WECS shall be double the required minimum setback.
- (6) The minimum setback for mechanical or electrical sheds shall be the required setback for an accessory structure for the zone in which it is located.
- (7) Setbacks may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(e) **Sound.**

- (1) Sound shall be measured at non-participating property lines and road right-of-ways.
- (2) All Medium WECS shall comply with the County sound regulations as defined in Section 10.07 of the Steuben County Zoning Ordinance, except for during short term events, such as severe wind storms and utility outages.
- (3) If the Medium WECS produces a pure tone, the standard shall be reduced by five (5) dB.

- (4) If the ambient sound level exceeds the above standards, the maximum sound level shall be ambient sound level plus five (+5) dB.
- (5) Sound requirements may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(f) **Interference.**

The applicant, owner, or operator shall eliminate or mitigate any interference with electromagnetic communication signals, such as radio, television, microwave, or wireless internet signals.

(g) **Safety.**

(1) **Access.**

- a. The tower shall not be climbable for a height of fifteen (15) feet above the ground unless the applicant proves it would not be a public hazard.
- b. All access doors to the tower and exterior electrical equipment shall be locked when not attended.

(2) **Operation.**

- a. The operator shall keep a maintenance record which shall be produced in a timely manner upon request for inspection by the County. Such request may be made up to two (2) times per year.
- b. All Medium WECS shall be equipped with both automatic and manual overspeed controls.
- c. All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.

(3) **Clearance.**

- a. Horizontal-axis Medium WECS shall have a minimum ground clearance of twenty (20) feet.
- b. Vertical-axis Medium WECS shall have a minimum ground clearance necessary to not be a hazard.

- (4) All Medium WECS shall display appropriate warning signs, such as electrical warnings and emergency contact information.

- (5) Blades shall utilize stick-free surface coatings.

(h) **Standards.**

(1) **Towers.**

- a. Medium WECS may be mounted on freestanding or monopole towers.
- b. Medium WECS in Lake Residential, Residential-1, and Mobile Home zones shall be mounted on a monopole only.

(2) **Appearance.**

- a. Medium WECS shall be a non-obtrusive, non-reflective color.
- b. Alternative color schemes may be approved without requiring a variance, if the following conditions are met:
 1. The proposed color scheme is consistent with FAA guidelines,
 2. Darker colored blades may be allowed to reduce icing concerns, &
 3. The proposed color scheme will better serve the intent of this Ordinance.

- c. The system shall be maintained in good condition at all times, consistent or better than industry standards.
- d. Systems shall not display any commercial advertising, except for a reasonable display of the owner, operator, or manufacturer.

(3) **Wiring.**

- a. All exterior wiring connections to the Medium WECS shall be installed underground.
- b. Wiring shall be located at a depth to prevent any damage from freezing or frost and to prevent interference with drain tiles.
- c. Wiring may be above ground if the following conditions are met:
 1. Above ground wiring will better serve the intent of this Ordinance,
 2. It will not create an undue safety hazard, &
 3. Burying of wires will cause an excessive hardship.

(4) **Lighting.**

- a. Medium WECS shall have no lighting unless required by the FAA.
- b. Tower lighting shall be the lowest intensity allowable by the FAA.
- c. Tower lighting shall not be strobe or pulsating unless required by the FAA.
- d. Strobe lighting shall be preferred to pulsating lighting.
- e. Tower lighting shall be shielded to the maximum extent possible to reduce glare and visibility from the ground.

(5) **Number.**

- a. There shall be no more than one (1) Medium WECS for every two (2) acres.
- b. There shall be no more than three (3) Medium WECS on any parcel.

(6) **Flicker.**

The applicant, owner, or operator shall make reasonable steps to eliminate or mitigate flicker and blade glint on non-participating, habitable structures, major roads, and road intersections.

(i) **Decommissioning/Removal.**

- (1) Any Medium WECS which has not produced electricity for a period of twelve (12) months shall be considered abandoned.
- (2) Abandoned Medium WECS shall be removed or reconditioned at the owner's expense within six (6) months notice to take action.
- (3) Unsafe Medium WECS shall be removed or made safe within a reasonable time as determined by the Plan Director.
- (4) The County may remove any abandoned or unsafe Medium WECS not removed or reconditioned by the owner within the allowed time at the owner's expense.
- (5) All structures, equipment, and waste associated with the Medium WECS shall be disposed of properly.
- (6) Land shall be restored to a depth of three (3) feet below grade.
- (7) Disturbed land shall be revegetated within a reasonable period of time.

- (8) Decommissioning requirements may be reduced without requiring a variance if the following conditions are met:
- a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

Section 09A.05 Large WECS

- (a) **Application Process.** Applicant shall submit the following materials:
- (1) A WECS Improvement Location Permit Application,
 - (2) Site Plan, with the following additional requirements:
 - a. Location of the Large WECS,
 - b. Structures within a distance of 3 times the total height,
 - c. All overhead utilities within a distance of 2 times the total height,
 - d. Location, including depth when buried, of exterior wiring associated with Large WECS, &
 - e. Location of known microwave transmission lines within a radius of 3 times the total height.
 - (3) GIS Mapping and Addressing Form,
 - (4) A copy of the interconnection agreement for grid-connected systems,
 - (5) **Letters:**
 - a. All letters from affected properties granting waiver of setback or sound requirements,
 - b. Letter of non-objection from the FAA,
 - (6) A maintenance plan,
 - (7) A sound-level analysis,
 - (8) Certification by a licensed engineer that the tower design is sufficient to withstand wind load requirements for structures as defined by BOCA,
 - (9) System Specifications:
 - a. Manufacturer and model,
 - b. Total system height, rotor size, ground clearance, &
 - c. Tower and tower foundation blueprints or drawings.
 - (10) Decommissioning Plan, including: &
 - a. Anticipated life span of Large WECS,
 - b. Estimated decommissioning costs, in current dollars,
 - c. How costs for decommissioning will be paid,
 - d. The County may require financial security consistent with County practices to pay for decommissioning .
 - (11) Other materials deemed necessary by the Plan Director to ensure compliance with this Ordinance.

(12) **Expiration.** The permit shall expire if:

- a. The Large WECS is not installed within one (1) year. A one (1) year extension may be granted,
- b. The Large WECS is declared abandoned, or
- c. The Large WECS is declared unsafe.

(b) **Zoning.**

Large WECS shall be a special exception use in the following zones: Agriculture, Environmental Control, Local Business, General Business, Accommodation Business, Industrial-1, and Industrial-2.

(c) **Height.**

Large WECS shall comply with all applicable FAA rules and regulations.

(d) **Setbacks.**

- (1) The setback shall be measured horizontally from the center of the base of the tower.
- (2) The minimum setback for Large WECS from non-participating property lines and public lakes shall be 2 times the total height.
- (3) The minimum setback for Large WECS from habitable structures on the participating properties, right-of-ways, overhead utilities, rivers, and wetlands shall be 1.1 times the total height.
- (4) The minimum setback for Large WECS from habitable structures on non-participating properties shall be 3 times the total height.
- (5) The minimum setback for an experimental Large WECS shall be double the required minimum setback.
- (6) The minimum setback for mechanical or electrical sheds shall be the required setback for an accessory structure for the zone in which it is located.
- (7) Setbacks may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance,
 - b. Proposed distances are consistent with industry standards, &
 - c. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(e) **Sound.**

- (1) Sound shall be measured at non-participating property lines and road right-of-ways.
- (2) All Large WECS shall comply with the County sound regulations as defined in Section 10.07 of the Steuben County Zoning Ordinance, except for during short term events, such as severe wind storms and utility outages.
- (3) If the Large WECS produces a pure tone, the standard shall be reduced by five (5) dB.
- (4) If the ambient sound level exceeds the above standards, the maximum sound level shall be ambient sound level plus five (+5) dB.
- (5) Sound requirements may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(f) **Interference.**

The applicant, owner, or operator shall eliminate or mitigate any interference with electromagnetic communication signals, such as radio, television, microwave, or wireless internet signals.

(g) **Safety.**

(1) **Access.**

- a. The tower shall not be climbable for a height of twenty (20) feet above the ground unless the applicant proves it would not be a public hazard.
- b. All access doors to the tower and exterior electrical equipment shall be locked when not attended.

(2) **Operation.**

- a. The operator shall keep a maintenance record which shall be produced in a timely manner upon request for inspection by the County. Such request may be made up to two (2) times per year.
- b. All Large WECS shall be equipped with both automatic and manual overspeed controls.
- c. All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.

(3) **Clearance.**

- a. Horizontal-axis Large WECS shall have a minimum ground clearance of forty (40) feet.
- b. Vertical-axis Large WECS shall have a minimum ground clearance of twenty (20) feet.

(4) All Large WECS shall display appropriate warning signs, such as electrical warnings and emergency contact information.

(5) Blades shall utilize stick-free surface coatings.

(6) The applicant(s), owner(s), developer(s), and/or operator(s) shall work with local emergency officials to develop an emergency response plan.

(h) **Standards.**

(1) **Towers.**

All Large WECS shall be mounted on monopole towers.

(2) **Appearance.**

- a. Large WECS shall be a non-obtrusive, non-reflective color.
- b. Alternative color schemes may be approved without requiring a variance, if the following conditions are met:
 1. The proposed color scheme is consistent with FAA guidelines,
 2. Darker colored blades may be allowed to reduce icing concerns, &
 3. The proposed color scheme will better serve the intent of this Ordinance.
- c. The system shall be maintained in good condition at all times, consistent or better than industry standards.
- d. Systems shall not display any commercial advertising, except for a reasonable display of the owner, operator, or manufacturer.

(3) **Wiring.**

- a. All exterior wiring connections to the Large WECS shall be installed underground.

- b. Wiring shall be located at a depth to prevent any damage from freezing or frost and to prevent interference with drain tiles.
- c. Wiring shall not cause interference with existing communication wiring.
- d. Concrete armoring techniques shall be used at every location where a County drain and wiring cross.
- e. Permanent, visible markers shall indicate the location of directional borings.
- f. Wiring may be above ground if the following conditions are met:
 1. Above ground wiring will better serve the intent of this Ordinance,
 2. It will not create an undue safety hazard,
 3. Burying of wires will cause an excessive hardship, &
 4. Above ground wires are already present.

(4) Lighting.

- a. Large WECS shall have the minimum lighting required by the FAA.
- b. Tower lighting shall be the lowest intensity allowable by the FAA.
- c. Tower lighting shall not be strobe or pulsating unless required by the FAA.
- d. Strobe lighting shall be preferred to pulsating lighting.
- e. Tower lighting shall be shielded to the maximum extent possible to reduce glare and visibility from the ground.
- f. Other lighting shall comply with the Steuben County Zoning Ordinance.

(5) Number.

- a. There shall be no more than one (1) Large WECS for every five (5) acres.
- b. There shall be no more than two (2) Large WECS on any parcel.

(6) Flicker.

The applicant, owner, or operator shall make reasonable steps to eliminate or mitigate flicker or blade glint on non-participating, habitable structures, major roads, and road intersections.

(i) Decommissioning/Removal.

- (1) Any Large WECS which has not produced electricity for a period of twelve (12) months shall be considered abandoned.
- (2) Abandoned Large WECS shall be removed or reconditioned at the owner's expense within twelve (12) months notice to take action.
- (3) Unsafe Large WECS shall be removed or made safe within a reasonable time as determined by the Plan Director.
- (4) The County may remove any abandoned or unsafe Large WECS not removed or reconditioned by the owner within the allowed time at the owner's expense.
- (5) All structures, equipment, and waste associated with the Large WECS shall be disposed of properly.
- (6) Land shall be restored to a depth of three (3) feet below grade.
- (7) Disturbed land shall be revegetated within a reasonable period of time.

- (8) Decommissioning requirements may be reduced without requiring a variance if the following conditions are met:
- a. Such reduction will better serve the intent of this Ordinance, &
 - b. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

Section 09A.06 Wind Farms

- (a) **Application Process.** Applicant shall submit a development plan with the following materials:
- (1) Required application materials for the individual WECS within the wind farm as defined in this Ordinance,
 - (2) Project summary, including:
 - a. General description of the project,
 - b. Name-plate generating capacity,
 - c. Name, address, and phone numbers of the Applicant(s), Owner(s), Developer(s), Operator(s), and all participating properties.
 - (3) Map of the project, including:
 - a. Topography with contours of not more than ten (10) feet. Contours may be increased for steeper slopes with approval,
 - b. Location of all WECS, MET towers, access roads, substations, wiring, and accessory structures,
 - c. Location of all primary structures on participating properties,
 - d. Location of non-participating primary structures within 4 times the total height of any WECS,
 - e. Overhead utilities within 2 times the total height of any WECS,
 - f. Location of known microwave transmission lines through the project area,
 - g. Location of radio, television, and mobile-phone transmission towers within 4 times the total height from the project boundaries,
 - h. Location of county tiles and drains within the project area and within 2 times the total height from the project boundaries,
 - i. Location of lakes, rivers, and wetlands within the project area and within 2 times the total height of any WECS.
 - (4) Transportation plan, approved by the County Highway Department and developed in conjunction with the County Highway Department, INDOT, Police, Fire, EMS, and Schools,
 - (5) Emergency response and security plan,
 - (6) Wildlife impact study detailing the potential effects of the wind farm on animals, birds, and bats, &
 - (7) **Financials.**
 - a. Financial security as approved by the County,
 - b. Economic Development Agreement as approved by the County, &
 - c. Permit fees for wind farm and WECS as determined by the County.

- (8) **Expiration.** The development plan shall expire if:
- a. Major construction of the wind farm does not begin within two (2) years. A one (1) year extension may be granted,
 - b. The wind farm is declared abandoned, or
 - c. The wind farm is declared unsafe.
- (9) **Development Plan Approval Process.**
- a. **Application.**
 1. Development plan shall be submitted to Commission staff for preliminary review.
 2. Development plan shall be placed on the Commission agenda within sixty (60) days if all of the required materials are present.
 3. The Commission shall make a written finding of facts concerning its decision which may be signed by the Commission President or Secretary.
 - b. **Notification.**
 1. Public notice shall be given at least ten (10) days prior to the public hearing.
 2. Notification shall include the time and location of the public hearing.
 3. Notification shall be made in a newspaper of general circulation.
 4. Notification shall be made by US mail to interested parties.
 5. For this section of the Ordinance Only, interested parties shall be defined as all properties within one thousand (1,000) feet of the proposed project area.
 6. Applicant shall be responsible for public notification costs.
 - c. **Public Hearing.**
 1. The presentation of reports and testimony shall be consistent with the Plan Commission Rules of Procedure.
 2. The Commission may approve the development plan if findings of facts are made consistent with the requirements in 09A.06 (a) (9) d.
 3. The Commission may approve the development plan with conditions if the Commission determines that the required findings of facts may be made only if certain written commitments are applied to the application.
 4. The Commission may deny the development plan if findings of facts are made not consistent with the requirements in 09A.06 (a) (9) d.
 5. The Commission may continue the action at the request of the Plan Director, applicant, remonstrator, or interested party; an indecisive vote; or a determination by the Commission that additional information is required prior to taking action on the request.
 - d. **Development Plan Decision Criteria.**
 1. The development plan is consistent with the Comprehensive Plan
 2. The development plan is compatible with the surrounding land uses.
 3. The transportation plan does not adversely affect the health, safety, and welfare of the community.
 4. All structures that are part of the development plan meet the necessary setbacks.
 5. The development plan meets the requirements of the Zoning Ordinance.

6. Adequate financial security has been made to provide for both road reconstruction and decommissioning costs.
7. The Steuben County Commissioners have approved an economic development agreement developed in conjunction with the Steuben County Council, Steuben County Economic Development Office, and the Steuben County Plan Commission Office.

(b) **Zoning.**

Wind farms shall be a permitted use requiring development plan review in the following zones: Wind Energy Conversion System Overlay.

(c) **Height.**

- (1) All wind farm WECS shall comply with all applicable FAA rules and regulations.
- (2) All wind farm WECS shall comply with the applicable height requirements of this Ordinance.

(d) **Setbacks.**

- (1) Setbacks shall be measured horizontally from the center of the base of the tower.
- (2) The minimum setback for WECS in a wind farm from non-participating property lines shall be 2.5 times the total height.
- (3) The minimum setback for WECS in a wind farm from occupied structures on non-participating properties shall be 3 times the total height.
- (4) All WECS within a wind farm shall comply with the applicable setbacks of this Ordinance.
- (5) The minimum setback between a neighboring WEC shall be 1.1 times the total height.
- (6) Setbacks may be reduced without requiring a variance if the following conditions are met:
 - a. Such reduction will better serve the intent of this Ordinance,
 - b. Proposed distances are consistent with industry standards, &
 - c. Written, notarized permission is granted by the affected properties and recorded with the County Recorder's Office.

(e) **Sound.**

- (1) Sound measurements shall be made at the exterior border of the wind farm project, habitable structures within the wind farm project, and major road right-of-ways.
- (2) All WECS within a wind farm shall comply with the applicable sound requirements as defined in this Ordinance.

(f) **Interference.**

The applicant, owner, or operator shall eliminate or mitigate any interference with electromagnetic communication signals, such as radio, television, microwave, or wireless internet signals.

(g) **Safety.**

(1) **Access.**

All access doors to towers and exterior electrical equipment shall be locked when not attended.

(2) **Operation.**

- a. The operator shall keep a maintenance record which shall be produced in a timely manner upon request for inspection by the County. Such request may be made up to two (2) times per year.
- b. All WECS shall be equipped with both automatic and manual overspeed controls.

- c. All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.

(3) **Emergency Response Plan.**

- a. The applicant(s), owner(s), developer(s), and/or operator(s) shall work with local emergency officials to develop an emergency response plan.
- b. The applicant(s), owner(s), developer(s), and/or operator(s) shall provide any specialized training necessary for local emergency officials.

- (4) The wind farm shall display appropriate signs with contact information for complaints and questions.

- (5) All WECS shall be approved by Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energie, or an equivalent third party.

(h) **Standards.**

(1) **Towers.**

All towers within a distance of 4 times the total height shall be of similar appearance.

(2) **Appearance.**

- a. All WECS within a distance of 4 times the total height shall be of similar appearance.
- b. All WECS shall be maintained in good condition at all times.

(3) **Wiring.**

- a. All feeder & communication lines shall be installed underground.
- b. Wind farm wiring shall be installed so as to minimize potential conflicts with drain tiles.
- c. Wind farm wiring shall not cause interference with existing communication wiring.
- d. Wind farm wiring may be above ground if the following conditions are met:
 1. Above ground wiring will better serve the intent of this Ordinance,
 2. It will not create an undue safety hazard,
 3. Burying of wires will cause an excessive hardship, &
 4. Above ground wires are already present.
 5. No major change in the appearance of the existing above-ground wires will be necessary, &
 6. Written, notarized permission is granted by the affected parties and recorded with the Steuben County Recorder's Office.

(4) **Lighting.**

- a. The wind farm shall have the minimum lighting required by the FAA.
- b. Lights within the wind farm shall be synchronized.

(5) **Number.**

The maximum number of WECS per parcel shall not apply to utility WECS developed as part of a wind farm.

(6) **WECS Location.**

- a. WECS shall be located to minimize the impact on farming and other use of the land.
- b. WECS shall be located to minimize the visual impact on important views within the County.

c. WECS shall be located to minimize the impact of wildlife.

(7) Access Roads.

- a. Access roads shall be designed to reduce the impact on farming and other use of the land.
- b. Access road location shall be approved by the Highway Department or InDOT.
- c. Access roads shall not impede the natural flow of water.

(8) Rotation.

All WECS within a wind farm shall rotate in the same direction.

(9) Transportation Plan/Roads.

- a. The applicant(s), owner(s), developer(s), and/or operator(s) shall develop a transportation plan illustrating which roads will be used for construction and operation of the wind farm with the Steuben County Highway Department and InDOT.
- b. The transportation plan shall be designed to minimize the impact on emergency responders and local schools.
- c. The applicant(s), owner(s), developer(s), and/or operator(s) shall be responsible for returning all roads used for construction to a condition at least equal to their pre-construction condition.
- d. The County may require a financial security, consistent with County Practices, to cover the costs of repairing roads
- e. The applicant(s), owner(s), developer(s), and/or operator(s) shall submit a plan each week detailing which roads will be affected and at what times due to construction to the Plan Commission, the Highway Department, the local police & fire departments, and local schools.

(10) Complaint/Concern Resolution.

- a. The applicant(s), owner(s), developer(s), and/or operator(s) shall establish a twenty-four (24) hour, toll-free number for members of the public to call with complaints and concerns.
- b. The toll-free number shall be posted at construction sites and at intersections throughout the project area.
- c. The applicant(s), owner(s), developer(s), and/or operator(s) shall keep a log of calls, available for inspection by County Officials.
- d. Legitimate complaints shall be remedied within forty-eight (48) hours.

(11) Dust Control.

Reasonable dust control measures shall be taken.

(12) Drains.

The applicant(s), owner(s), developer(s), and/or operator(s) shall repair all County and private drain tiles damaged due to construction or maintenance of the wind farm to original or better condition within a reasonable time.

Section 09A.07 Wind Energy Conversion System Overlay Zoning District

- (a) **Application Process.** Applicant shall submit a petition to rezone to a WECS overlay district with the following materials:
- (1) Project summary, including:
 - a. General description of the project,
 - b. Name-plate generating capacity,
 - c. The type of WECS, including potential manufacturer,
 - d. The number of WECS and MET Towers,
 - e. Description of substations, maintenance structure, storage yards, and other buildings that are a part of the project, &
 - f. Name, address, and phone numbers of the Applicant(s), Owner(s), Developer(s), Operator(s), and all participating properties.
 - (2) Description of the Applicant, Owner, and Operator, including their restrictive business structures.
 - (3) Map of the project, including:
 - a. Topography with contours of not more than ten (10) feet. Contours may be increased for steeper slopes with approval,
 - b. Location of all primary structures on participating properties,
 - c. Location of non-participating primary structures within one thousand (1,000) feet of the proposed overlay district,
 - d. Location of county tiles and drains within the project area and within five hundred (500) feet of the proposed overlay district, &
 - e. Location of public lakes and rivers within the proposed overlay district and within one thousand (1,000) feet of the proposed overlay district.

(b) **Zoning.**

Wind Energy Conversion Systems Overlay District shall be a permitted overlay zone in the following zones: Agriculture, Environmental Control, Industrial-1, and Industrial-2.

(c) **Written Agreement.**

- (1) All new lots and buildings approved in the WECS Overlay District shall submit and record a signed agreement with the County Recorder.
- (2) Document shall recognize that the current and subsequent owners shall not object to nor file suit against any wind farm WECS operator, developer, or owner so long as it follows industry accepted standards and complies with the Steuben County Zoning Ordinance.
- (3) Document language shall be approved by the Commission Attorney.

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