

Clinton County Wind Ordinances

Commercial/UZO 406:

406 WIND ENERGY CONVERSION SYSTEM (WECS) OVERLAY DISTRICT¹

PREAMBLE

WHEREAS, Wind Energy Conversion Systems (WECS) offer an opportunity to produce electrical power in an environmentally beneficial manner without the production of greenhouse gases;

WHEREAS, a WECS Project will require substantial economic investment in Clinton County which will be beneficial to the County and its residents, will create both temporary and permanent employment opportunities, and will generate lease payments to Clinton County landowners;

WHEREAS, the construction of a WECS system involves the use of heavy equipment and transportation of heavy loads which have the potential of damaging the public and private infrastructure of the county, including roads, bridges, and drainage structures and for disruption of transportation on public roads;

WHEREAS, the failure to complete a WECS after the commencement of construction, the failure of a WECS system to continue in operation and the failure to remove a WECS after the end of its useful life create significant risks and damage to the value of the property of adjacent landowners, environmental risks, safety and security risks, and could be harmful to health, safety and harmonious environment of Clinton County;

WHEREAS, the adoption of a zoning ordinance regulating the location, construction, and operation of a WECS is necessary and appropriate to achieve and secure the benefits of a WECS and to avoid and/or minimize the risks, dangers, and inconvenience to health, safety, and general welfare of Clinton County;

WHEREAS, the adoption of the following WECS ordinance is necessary to achieve the goals set forth in the Comprehensive Plan for Clinton County;

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of Clinton County that a Commercial Wind Energy Conversion System (WECS) and WECS Overlay District shall meet the following standards:

406.01 Permitting and application requirements are as follows:

- A)** An application for re-zoning to a WECS Overlay District must be submitted to the Area Plan Commission and may be a combined application provided all property owners where the WECS facilities are to be located are Co-Applicants. The application shall include the following items:
 - 1.** A WECS Project Summary, including, to the extent available:
 - a.** A general description of the project including its approximate name plate generating capacity, the potential equipment manufacturer, the type of WECS, the number of WECS Towers, the name plate generating capacity of each WECS Tower, the maximum height of the WECS Towers, the maximum diameter of the WECS rotors, and the general location of the project.
 - b.** A description of the Applicant, Owner, and Operator, including

¹ As amended in Ordinance 2009-03 adopted on May 18, 2009

e. A Decommissioning Plan formulated by the Applicant, Owner and/or Operator and accepted by the Area Plan Commission to ensure that the WECS Project is properly decommissioned. The Decommissioning Plan must be updated and approved by the Area Plan Commission every five (5) years after the approval of the initial Decommissioning Plan, in the same manner as the initial plan. The Decommissioning Plan shall include assurance that the facilities are properly decommissioned upon the end of the project life or facility abandonment. Applicant's obligations with respect to decommissioning shall include removal of all physical material, with the exception of subsurface Collectors (as defined), pertaining to the project improvements to a depth of 48" beneath the soil surface, and restoration of the area occupied by the project improvements such that it is suitable for an equivalent land use to what existed immediately before construction of such improvements. The Applicant shall provide a contractor cost estimate for demolition and removal of the WECS facility from a licensed engineer approved by the Area Plan Commission. Financial assurance of decommission shall be provided as required by Section 406.03(A).

2. The petition for Secondary Development Plan Approval shall include:

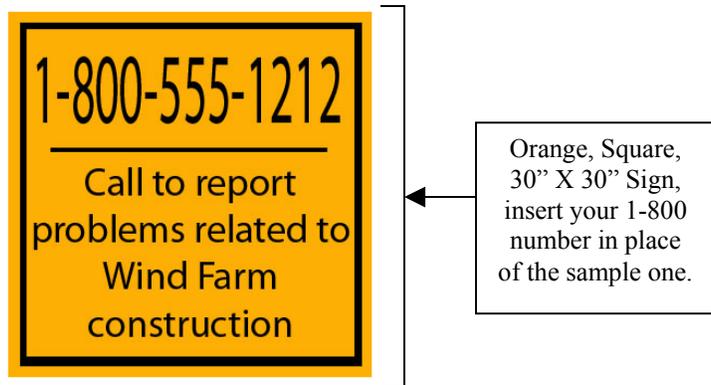
- a. A revised site plan as described in Section 406.01(B)(1)(a).
- b. A Security and Safety Plan which must include adequate provisions for site security and safety. If the plan includes using county services, then it should include signatures indicating those parties are aware of their role and capable of performing it.
- c. Adequate Assurance of the Completion and Continued Operation of the WECS Project from the date of the commencement of construction through the tenth (10th) year of operation of the WECS. The Owner /Applicant/Operator shall demonstrate such Adequate Assurance of Completion and Continued Operation of the WECS Project by providing evidence of: (1) adequate funding of one hundred percent (100%) of the estimated cost of construction of the WECS; (2) performance and payment bonds or other sureties from the Owner Applicant/Operator and/or major equipment suppliers and contractors; (3) the existence of written warranties from contractors and/or manufacturers which have demonstrated financial ability to repair and/or replace defective work, materials, and equipment; and (4) adequate casualty, builders risk, business interruption, and liability insurance for the replacement of the WECS and the individual components thereof, and the funding of on an ongoing basis, and the payment of all liabilities occurring during, arising from, or related to a casualty loss. The Applicant/Owner/Operator may provide such cost estimates, bids, contracts, warranties, feasibility studies, engineering studies and reports, insurance certificates, loan and other financing commitments to provide the requested information to provide adequate assurance and completion and continued operation.
- d. An Economic Development Agreement (as defined) approved by the Clinton County Commissioners. This agreement must be

developed in conjunction with the Clinton County Economic Development Office and Clinton County Council.

C) After Secondary Development Plan approval is obtained, but before any construction commences or Improvement Location Permits may be acquired, all applicable state and federal permits, approvals and licenses must be obtained and all state and federal statutes and regulations must be complied with and the following requirements satisfied:

1. The Owner or Operator of the WECS shall maintain liability policies covering (1) bodily injury and property damage and (2) environmental contamination arising from construction, operation, maintenance, and decommissioning of the WECS, with nationally recognized, well-capitalized insurance companies initially approved by the Area Plan Commission and annually thereafter by the executive director of the Area Plan Commission and name Clinton County as an additional insured. Limits on the bodily injury and property damage policy shall be of at least \$2 million per occurrence and \$5 million in the aggregate with a deductible of no more than \$20,000 and on the environmental contamination policy shall be of at least \$1 million per occurrence and \$2 million in the aggregate with a deductible of no more than \$50,000.
2. The Applicant/Owner/Operator shall establish a 24-hour toll-free phone number for the registering of complaints and concerns. This number shall be posted at every road intersection throughout the project area before Improvement Location Permits are issued and before any construction or earth moving can commence. If legitimate complaints are not remedied within 48 hours the county may address these complaints with any expenses incurred to be reimbursed by the WECS Applicant according to the fee rate established as described in Section 406.02(A)(7).

Figure 406 Required toll-free number sign example:



3. The Applicant/Owner/Operator must attend a Pre-Construction Meeting between the Area Plan Commission Executive Director, Zoning Administrator, Area Plan Commission President, Clinton County Building Inspector, and any other public officer or official whose input is deemed appropriate and WECS Applicant to verify that all requirements in the Unified Zoning Ordinance have been met. This meeting shall take place as the final step before construction and all other requirements should already have been met. Once reviewed, if all requirements have been met, the WECS Applicant may then obtain Improvement Location

Permits. If any requirements have not been met then further pre-construction meetings will be held until it can be verified that the identified issues have been resolved.

4. All Improvement Location Permit fees must be paid for the entire WECS project before any Improvement Location Permits will be issued.
- D)** The Rezoning Application, Development Plan (including but not limited to Decommission Plan and each update thereof and the assurance of completion and continued operations), and Improvement Location Permit applications shall be reviewed by Area Plan Commission staff, counsel, an independent professional engineer, and any other professionals deemed necessary as selected or approved by the Area Plan Commission. Within 30 days of submission, the Owner/Applicant/Operator shall reimburse the Area Plan Commission for all costs and expenses associated with the initial or any subsequent review of the Development Plan including but not limited to the employment of a professional engineer, financial consultant, or other professional advisors consulted by the Area Plan Commission. A Professional Engineer shall also certify, as part of the Improvement Location Permit application that the foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.

406.02 Construction and Standards:

- A)** Prior to and during construction the Applicant, Owner and Operator shall be responsible for:
1. Implementing reasonable dust control measures during construction.
 2. Complying with existing septic and well regulation as required by the Clinton County Health Department and the Indiana Department of Public Health.
 3. Repairing all damages to non-co-applicant or county regulated waterways, drainage ditches, field tiles, or any other infrastructures caused by the construction or maintenance of the WECS. Damages must be completely repaired to original or better condition, and so as not to impede the flow of water. All repairs must be completed in a timely manner and the WECS Owner, Operator, and/or Applicant shall be responsible for loss or damage proximately resulting from its impairment of such drainage structures. All repairs to county regulated drainage structures must be completed within ten days.
 4. Using concrete armoring techniques at each and every location where County regulated drains and subsurface power transmission lines of any type cross. Unopened bags of premixed concrete shall be laid on top of the transmission lines to cover six inches on both sides of the line and eight feet to each side of the County regulated drain the line is crossing. Open drain and transmission line intersections where the line is below the invert of the open drain shall be armored using the same technique. Red warning tape (printed with "warning electrical line below" or similar language) shall be buried no closer than 12 inches above the actual power line at all crossing locations. The Surveyor or agent designated by the Surveyor shall inspect every such crossing before backfilling. Concrete armoring techniques will not be required in cases where directional boring is used.

5. Installing permanent, visible markers where directional boring is used. Markers shall be placed within the line of sight indicating directional changes and borings.
6. Submitting a daily plan of work submitted at a time of day specified by the Area Plan Commission detailing where construction and transportation activities will occur to the Area Plan Commission, County Highway Supervisor, County Sheriff, County Surveyor, Soil & Water Conservation District, the Superintendent(s) of the School District(s) in which construction is occurring and to the emergency services with jurisdiction over the areas in which construction is occurring. This shall include notification of any oversize or overweight loads entering or exiting the project each day as well as any work on roads, drainage, or access roads.
7. Adhering to the approved Transportation Plan. The Clinton County Highway Supervisor shall conduct a pre-construction baseline survey to determine existing road conditions for assessing potential future damage. The Clinton County Highway Supervisor may choose to require remediation of road damage during or upon completion of the project and is authorized to collect fees for oversized load permits. If the Applicant does not make repairs in a timely manner, the Supervisor is authorized to make repairs and charge the Applicant a fee to cover the costs of repair. Such fees shall be established at the start date of construction and may be revised at three-month intervals. Further, a corporate surety bond shall be required by the Clinton County Highway Supervisor to insure the county that future repairs are completed to the satisfaction of the county. The cost of bonding is to be paid by the Applicant. A \$1,000 fine shall be assessed for each occurrence where WECS oversize or overweight construction and maintenance equipment utilizes any route(s) in violation of the approved Transportation Plan. If the Applicant/Owner /Operator or its contractors require material changes from the approved Transportation Plan or if post completion repairs, improvements, or expansions require oversize and overweight loads or involve new routes, an Amended Transportation Plan must be approved in the same manner as the initial plan. When all road repairs are completed to his satisfaction the Clinton County Highway Supervisor will issue a County Highway Remediation Release Form.
8. Adhering to the approved Development Plan. Any non-material proposed changes, modifications, or amendments to the Development Plan must be approved by the Executive Director of the Area Plan Commission. All material changes to the Plan must be approved by the Area Plan Commission. The Executive Director shall have the authority and discretion, considering all relevant factors, to determine whether the proposed Development Plan change is material.

B) Design and installation shall be as follows:

1. WECS Towers shall conform to applicable industry standards. Applicant shall submit certificates of design compliance that wind turbine manufacturers have obtained from Underwriters Laboratories, Det Norske Veritas, Germanishcher Lloyd Wind Energie, or an equivalent third party.
2. All WECS Towers shall be installed with a tubular, monopole type tower. Meteorological towers may be guyed. All structures shall be uniform in design and appearance.

3. All WECS Towers shall be equipped with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.
 4. All electrical components and Collectors (as defined) of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards. All WECS Collectors between WECS towers shall be located underground.
 5. Towers and blades shall be painted with non-reflective white or gray color. The Applicant shall comply with all applicable Federal Aviation Administration color requirements. No advertising or signage shall be allowed on a WECS Tower, except for manufacturers name on the nacelle.
 6. A visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
 7. All WECS Tower designs must include features to deter climbing or be protected by anti-climbing devices such as: 1) fences with locking portals at least eight feet high, 2) anti-climbing devices 15 feet vertically from the base of the WECS Tower, and/or 3) locked WECS Tower doors.
 8. Red strobe lights are preferred during the night to reduce impacts on migrating birds and red pulsating incandescent lights should be avoided. White strobe lights at night are not allowed. All lighting shall also be in compliance with applicable Federal Aviation Administration regulations and the lighting requirements in Section 532 of this Ordinance. All lighting shall be shielded so that no glare extends substantially beyond the boundaries of the wind farm facilities.
- C) At any non-Co-Applicant residentially zoned lot, public school, or public library, for a period of more than 10% out of every hour, the audible A-weighted sound pressure levels as a result of the sound emitted by the WECS shall not exceed either, the greater of 45 decibels or, 5 decibels above the Ambient Baseline Sound Pressure Level of the wind farm project area at Critical Wind Speeds. At any non-Co-Applicant residence on Agricultural, Industrial, or Business zoned land, for a period of more than 10% out of every hour, the audible A-weighted sound pressure levels as a result of the sound emitted by the WECS shall not exceed either, the greater of 51 decibels or, 5 decibels above the Ambient Baseline Sound Pressure level of the wind farm project area at Critical Wind Speeds. The Ambient Baseline Sound Pressure Level, if used, shall be determined by a baseline acoustic emissions study conducted by the Clinton County Area Plan Commission and funded by the Applicant. All methods for measuring and reporting acoustic emissions shall be equal to or exceed the minimum standards for precision described in the International Electrotechnical Commission IEC 61400-11 Standard: *Wind turbine generator systems – Part 11: Acoustic noise measurement techniques*. Noise and vibration levels shall also be in compliance with all other applicable county, state and Federal regulations.
- D) The minimum distance between the ground and any protruding blade(s) utilized on a WECS shall be fifty (50) feet, as measured at the lowest point of the arc of the blades. The minimum distance shall be increased as necessary to provide for vehicle clearance in locations where over-sized vehicles might travel.
- E) Setbacks shall be as follows:

1. No WECS shall be constructed in any setback, dedicated public easement or dedicated public right-of-way without prior written authorization from the county.
2. Except as provided herein, installation of any WECS may not be nearer than 1.1 times the height of the WECS including the blade at its highest point, to any non-Co-Applicant property lines, dedicated roadway, Co-Applicant residences, railroad right-of-way or overhead electrical transmission or distribution lines. Also, the minimum setback distance for all turbines, substations, maintenance structures, storage yards, permanent Meteorological Towers, and other buildings that are a direct functional part of the WECS shall be not less than 1,000 feet from any non-Co-Applicant residence, public building or Urban Growth Boundary. Distance shall be measured at the time of application for Improvement Location Permit from the center of the foundation at the base of the tower.
New structures built adjacent to wind power facilities shall maintain these same minimum setback requirements. The setback distance will be followed except in specific instances allowed by the Area Board of Zoning Appeals in a Variance hearing.
3. The WECS Tower shall not be nearer than 1.1 times the height of the WECS Tower including the blade at its highest point from any other WECS Tower.

406.03 Post-construction and continued maintenance requirements are as follows:

- A) Commencing on January 1 of the first calendar year after the tenth (10th) year of operation of the WECS, the Owner/Applicant/Operator shall secure and provide to the Area Plan Commission a performance bond, surety bond, letter of credit, or other form of financial assurance that is acceptable to the Area Plan Commission (the "Decommissioning Security") equal to the estimated cost of decommissioning the WECS pursuant to the Decommissioning Plan. The Decommissioning Security, in computing the estimated cost of decommissioning, shall consider and deduct the Net Salvage Value (as defined) of the WECS. The amount of the Decommissioning Security shall be adjusted annually by January 31 by an amount equal to the increase in the CPI Index. "CPI Index" shall mean the Consumer Price Index for "All Urban Consumers, U.S. City Average, All items," issued by the Bureau of Labor Statistics of the United States Department of Labor, or, if discontinued or no longer published, such other governmental index that most closely matches the manner in which inflation had been previously tracked as selected by the Area Plan Commission. All Applicants/Owners/Operators shall provide an updated Decommissioning Plan every five (5) years commencing with the operation of the WECS which updated Decommissioning Plan shall be reviewed and approved by a licensed engineer approved by the Area Plan Commission and qualified to provide an estimate of the cost of decommissioning of the WECS and the Net Salvage Value of the WECS (the "Decommissioning Engineer"). A new Decommissioning Security in an amount equal to the cost of the estimated cost of decommissioning after deducting the Net Salvage Value of the WECS shall be provided within sixty (60) days of the approval of the updated Decommissioning Plan.
- B) All solid waste whether generated from supplies, equipment, parts, packaging, or operation or maintenance of the facility, including old parts and equipment, shall be removed from the site in a timely manner. All hazardous waste generated by the operation and maintenance of the facility, including but not limited to lubricating materials, shall, be handled in a manner consistent with all local, state and federal rules and regulations.

C) The following operation, maintenance and inspection standards shall be met:

1. Any physical modification to the WECS that alters the mechanical load, mechanical load path, or major electrical components shall require re-certification. Like-kind replacements shall not require re-certification. Prior to making any physical modification (other than a like-kind replacement), the Owner or Operator shall confer with the Building Inspector to determine whether the physical modification requires re-certification.
2. The Clinton County Building Inspector, approved designees, along with licensed 3rd party engineers/professionals retained by the County for the specific purpose of conducting inspections of the WECS shall have the right, at any reasonable time and with sufficient prior notice, to accompany the Owner or Operator, or his agent, on the premises where a WECS has been constructed, to inspect all parts of said WECS installation and to require that repairs or alterations be made. The Owner or Operator of a WECS may retain a licensed 3rd party professional engineer familiar with WECS systems to prepare and submit to the Clinton County Building Inspector a written report which addresses the repairs or alterations requested, and which suggest alternate methods for addressing the concerns or provides evidence that said repairs or alterations are unnecessary, within thirty (30) days after receiving notice from the Clinton County Building Inspector that repairs or alterations are requested, or within a longer period of time mutually acceptable to both parties. The Clinton County Building Inspector will consider any such written report and determine whether the repairs or alterations should be made as originally requested or as suggested in the written report. In the event of a dispute between the Clinton County Building Inspector and the Owner or Operator, or a 3rd party professional engineer retained by them, as to the repairs or alterations which are required, the decision of the Building Inspector shall be final.
3. If, after construction, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, telecommunication, communication or microwave transmissions, the Owner or Operator shall promptly resolve the complaint.
4. The WECS Applicant, Owner or Operator shall submit to all providers of emergency services serving the WECS Project area a copy of the as-built site map. Upon request by the local fire department, the Owner or Operator shall cooperate with the local fire department to develop the fire department's emergency response plan. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
5. On completion of construction the WECS Applicant, Owner or Operator shall submit to the County Surveyor a site map detailing all ground disturbed through construction activity, surface/subsurface structure/infrastructure and all routes over which trucks and equipment traveled. The scale and format of the submitted map shall conform to the County Surveyor's specifications.
6. For a period of five (5) years following the completion of construction the WECS Applicant, Owner or Operator shall be liable to the county for all costs of repair, as determined by the County Surveyor, to county drain tiles, regulated drains and ditches and other county regulated surface and subsurface structures and private tiles located in the public right of way within fifty (50) feet of the routes and disturbed ground as described in Section 406.03(C)(5).

- D) A WECS or any individual wind turbine constituting a portion of the WECS is presumed at the end of its useful life and/or abandoned if the WECS or the individual turbine generates no electricity for a continuing period of twelve (12) months. This presumption may be rebutted by submitting to the Area Plan Commission for approval and within ninety (90) days of submission obtaining approval thereof of a plan outlining the steps and schedules for returning the WECS or the individual wind turbine to service. Any WECS or individual turbine which pursuant to the terms hereof is either reached the end of its useful life and/or abandoned pursuant to the terms hereof shall be subject to removal pursuant to the Decommissioning Plan.
- E) Any WECS, WECS Tower, or structure thereof declared to be unsafe by the Clinton County Building Inspector by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair or rehabilitation within 12 months or be deemed abandoned and at the end of its useful life as provided in Section 406.03(D).
- F) Any post-construction proposed non-material modifications, alterations, expansions, or changes of any type or size to the Development Plan must be approved by the Executive Director of the Area Plan Commission and all material post construction proposed changes must apply in the same way as a new WECS following the process in Section 406.01. The Executive Director shall have the authority and discretion, considering all relevant factors, to determine whether the proposed post-construction change is material.
- G) Nothing in Section 406 of this Ordinance is intended to preempt other applicable state and federal laws and regulations.

406.04 All new building lots and new dwellings approved in the Wind Energy Conversion System Overlay District shall submit and record a signed agreement in the office of the County Recorder. Such written agreement shall recognize that the current owner and all subsequent owners of such building site (lot) shall not object to, nor file suit against any Wind Energy Conversion System so long as it follows industry accepted wind farming operation, construction, and maintenance standards. Such agreement language shall be approved by the Board Attorney and shall be comparable to the following:

"In accepting this deed, grantees do hereby acknowledge that the surrounding land is designated for a Commercial Wind Energy System and subject to intense wind farming practices; and grantees, and their heirs, assigns, and successors in interest, are precluded from complaining, seeking damages and/or attempting to enjoin the use of the property (land) for Wind Energy Conversion Systems as long as industry accepted wind farming operation, construction and maintenance standards are followed. It is further recognized that Wind Energy Conversion Systems may include disruptive noise/traffic throughout the year. This condition and agreement shall run with the land."

Non-Commercial, Private, & MET Towers/533-536:

533 WIND ENERGY CONVERSION SYSTEM (WECS)- COMMERCIAL Permitted within WECS Overlay District. See UZO Section 406.²

534 WIND ENERGY CONVERSION SYSTEM (WECS) – NON-COMMERCIAL A Non-Commercial Wind Energy Conversion System shall meet the following standards³:

534.01 Permitting and application requirements are as follows:

- A)** An application for Special Exception approval must be submitted to the Board of Zoning Appeals and may be a combined application provided all property owners where the WECS facilities are to be located are Co-Applicants. The Applicant may also submit a joint application for any Variances that are needed for the project area. The application shall include the following items, in addition to the regular Special Exception Requirements:
- 1.** A WECS project summary, including, to the extent available:
 - a.** A general description of the project, including its approximate name plate generating capacity, the potential WECS equipment manufacturer, type of WECS, number of WECS, the name plate generating capacity of each WECS, the maximum height of the WECS Towers, the maximum diameter of the WECS rotors, and the general location of the project
 - b.** A description of the Applicant, Owner, and Operator, including their respective business structures.
 - 2.** The names, addresses and phone numbers of the Applicants, Owners and Operators, and all Co-Applicants with WECS on their properties.
 - 3.** A map of the project area, encompassing an area at least a quarter mile radius from the project site.
- B)** After Special Exception approval is obtained, but before any construction commences or Improvement Location Permits may be acquired, all applicable state and federal permits, approvals and licenses must be obtained and all state and federal statutes and regulations must be complied with and the following requirements satisfied:
- 1.** A site plan at an appropriate scale showing (standard sheet of 36 inches by 24 inches and individual tower site not greater than 1 inch equals 20 feet); the proposed location of the wind energy facility (including planned locations of each WECS Tower, guy lines and anchor bases (if any); electrical cabling; ancillary equipment; and any structures that are a direct functional part of the WECS). In addition, the site plan shall show: primary structures within one quarter of one mile of any WECS; property lines, including identification of adjoining properties; setback lines; public roads; County regulated drains, open ditches, or tiles; private septic systems, tiles, and wells; location of all above-ground utility lines within a distance of two (2) times the WECS Tower Height of any WECS

² As added in Ordinance 06-04 adopted on April 3, 2006, amended in Ordinance 2009-03 adopted on May 18, 2009

³ As added in Ordinance 2009-03 adopted on May 18, 2009

Tower; location of all existing underground utility lines associated with the WECS site; floodplains; and any wetlands based upon a delineation prepared in accordance with the applicable U.S. Army Corps of Engineer requirements and guidelines.

2. If any oversize or overweight vehicles will be utilizing public county roads for construction or maintenance activities the WECS Applicant, Owner, or Operator must contact the County Highway Supervisor to develop a Transportation Plan.
3. Written Clinton County Drainage Board and Clinton County Health Department Approval must be submitted with the application for Development Plan Review.
4. A copy of a recorded agreement between all applicants detailing provisions for maintenance and decommissioning shall be submitted with the application for Development Plan Review.

534.02 Design and installation standards shall be as follows:

- A) Turbines of 50 kW name plate generating capacity or greater must be installed with a tubular, monopole type tower.
- B) The minimum distance between the ground and any protruding blades for turbines of 50 kW name plate generating capacity or greater is twenty-five (25) feet. The minimum distance between the ground and any protruding blades for turbines of less than 50 kW name plate generating capacity is fifteen (15) feet.
- C) No WECS Turbine or Tower may be attached to any residence or dwelling structure, either as freestanding or by guy wires.
- D) For all guyed towers install either (A) visible reflective colored objects such as flags, reflectors, or tape on the anchor points of guy wires and along the guy wires up to a height of not less than 15 feet from the ground or (B) a single visible fence to a height of not less than four (4) feet such that it surrounds the tower and all anchor points of the guy wires.
- E) All electrical components and Collectors (as defined) of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards. All WECS Collectors between WECS Towers shall be located underground.
- F) All WECS turbines shall be equipped with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Stall regulation shall not be considered a sufficient braking system for over-speed protection.
- G) Towers and blades shall be painted with non-reflective white or gray color. The Applicant shall comply with all applicable Federal Aviation Administration color requirements. No advertising or signage shall be allowed on a WECS Tower, except for manufacturers name on the nacelle.
- H) All blades shall utilize stick-free surface coatings to minimize ice buildup.
- I) A visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.

- J)** All WECS Tower designs must include features to deter climbing or be protected by anti-climbing devices such as: 1) fences with locking portals at least eight feet high, 2) anti-climbing devices 15 feet vertically from the base of the WECS Tower, and/or 3) locked WECS Tower doors.
- K)** At any non-Co-Applicant residentially zoned lot, public school, or public library, for a period of more than 10% out of every hour, the audible A-weighted sound pressure levels as a result of the sound emitted by the WECS shall not exceed either, the greater of 45 decibels or, 5 decibels above the Ambient Baseline Sound Pressure Level of the wind farm project area at Critical Wind Speeds. At any non-Co-Applicant residence on Agricultural, Industrial, or Business zoned land, for a period of more than 10% out of every hour, the audible A-weighted sound pressure levels as a result of the sound emitted by the WECS shall not exceed either, the greater of 51 decibels or, 5 decibels above the Ambient Baseline Sound Pressure level of the wind farm project area at Critical Wind Speeds. The Ambient Baseline Sound Pressure Level, if used, shall be determined by a baseline acoustic emissions study conducted by the Clinton County Area Plan Commission and funded by the Applicant. All methods for measuring and reporting acoustic emissions shall be equal to or exceed the minimum standards for precision described in the International Electrotechnical Commission IEC 61400-11 Standard: *Wind turbine generator systems – Part 11: Acoustic noise measurement techniques*. Noise and vibration levels shall also be in compliance with all other applicable county, state and Federal regulations.
- L)** Red strobe lights are preferred during the night to reduce impacts on migrating birds and red pulsating incandescent lights should be avoided. White strobe lights at night are not allowed. All lighting shall also be in compliance with applicable Federal Aviation Administration regulations and the lighting requirements in Section 532 of this Ordinance. All lighting shall be shielded so that no glare extends substantially beyond the boundaries of the wind farm facilities.
- M)** Electricity generated from the WECS may not be sold to a utility. Net metering is permitted.
- N)** Setbacks shall be as follows:
1. No WECS shall be constructed in any setback, dedicated public easement or dedicated public right-of-way without prior written authorization from the county.
 2. Except as provided herein, installation of any WECS may not be nearer than 1.1 times the height of the WECS including the blade at its highest point, to any non-Co-Applicant property lines, dedicated roadway, Co-Applicant residences, railroad right-of-way or overhead electrical transmission or distribution lines. Also, the minimum setback distance for all turbines, substations, maintenance structures, storage yards, permanent Meteorological Towers, and other buildings that are a direct functional part of the WECS shall be not less than 1,000 feet from any non-Co-Applicant residence, public building or Urban Growth Boundary. Distance shall be measured at the time of application for Improvement Location Permit from the center of the foundation at the base of the tower. New structures built adjacent to wind power facilities shall maintain these same minimum setback requirements. The setback distance will be followed except in specific instances allowed by the Area Board of Zoning Appeals in a Variance hearing.

3. The WECS Tower shall not be nearer than 1.1 times the height of the WECS Tower including the blade at its highest point from any other WECS Tower.

535 WIND ENERGY CONVERSION SYSTEM (WECS) – PRIVATE A Private Wind Energy Conversion System shall meet the following standards:⁴

535.01 Permitting and application requirements are as follows:

- A) Prior to receiving an Improvement Location Permit the Applicant must provide a map of the project area, including distances of the proposed WECS Turbine from all property lines, public easements and right-of-ways, wells and septic systems, and overhead transmission or distribution lines or dwellings.
- B) The Applicant must submit turbine technical specifications with the application. At a minimum, the specifications must include; rated power generating capacity, rotor diameter, swept area, and the level of sound generated. If manufacturer's specifications are not available the Applicant may submit results from a reliable testing entity such as the National Renewable Energy Laboratory or the Small Wind Certification Council. If no specifications are available the Applicant must submit a report from a qualified engineer.
- C) The Applicant must submit tower specifications with the application including type and height of tower (guyed, lattice, monopole, etc.) and combined height of the tower and turbine with vertically extended blade.

535.02 Design and installation standards shall be as follows:

- A) The minimum distance between the ground and any protruding turbine blades is fifteen (15) feet.
- B) Installation of any WECS Tower may not be nearer than 1.1 times the height of the Tower including the blade at its highest point, to any property lines, dedicated roadway, railroad right-of-way or overhead electrical transmission or distribution lines. Distance shall be measured from the center of the foundation at the base of the tower.
- C) No WECS Turbine may be attached to any dwelling structure, including by guy wires.
- D) For all guyed towers install either (A) visible reflective colored objects such as flags, reflectors, or tape on the anchor points of guy wires and along the guy wires up to a height of not less than 15 feet from the ground or (B) a single visible fence to a height of not less than four (4) feet such that it surrounds the tower and all anchor points of the guy wires.
- E) All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards.
- F) All WECS turbines shall be equipped with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Stall regulation shall not be considered a sufficient braking system for over-speed protection.

⁴ As added in Ordinance 2009-03 adopted on May 18, 2009

- G)** Towers and blades shall be painted with non-reflective white or gray color. The Applicant shall comply with all applicable Federal Aviation Administration color requirements. No advertising or signage shall be allowed on a WECS, except for manufacturers name on the nacelle.
- H)** All blades shall utilize stick-free surface coatings to minimize ice buildup.
- I)** Sound pressure levels may not exceed 45 decibels at six feet in height at any adjacent lot line.
- J)** Electricity generated from the WECS may not be sold to a utility. Net metering is permitted.
- K)** Minimal lighting should be used. All lighting shall be in compliance with applicable Federal Aviation Administration regulations and the lighting requirements in Section 532 of this Ordinance. Red strobe lights are preferred during the night to reduce impacts on migrating birds and red pulsating incandescent lights should be avoided. White strobe lights at night are not allowed. All lighting shall be shielded so that no glare extends substantially beyond the WECS Tower.

536 METEOROLOGICAL TEST TOWERS Meteorological Test Towers must comply with the following standard:⁵

- A)** The structure shall not be nearer than 1.1 times the height of the structure from the nearest property line or right-of-way.
- B)** The structure shall not be installed for a period of more than two (2) years, with up to two (2) renewals by the Zoning Administrator, for no more than a total of six years.
- C)** A financial assurance in an amount of 125% of the estimated cost of said demolition and removal shall be filed in the form of a bond, letter of credit or other security acceptable to the County prior to Improvement Location Permit issuance.
- D)** The structure shall comply with all Federal Aviation Administration and other Federal and state regulations and all building codes.
- E)** Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor point of guy wires and along the guy wires up to a height of not less than 15 feet from the ground.

⁵ As added in Ordinance 2009-03 adopted on May 18, 2009

Wind Related Definitions:

(Revised in Ordinance 2009-03 on May 18, 2009 except as noted)

ADEQUATE ASSURANCE OF COMPLETION AND CONTINUED OPERATIONS OF THE WECS PROJECT The term “Adequate Assurance of Completion and Continued Operations of the WECS Project” shall mean the financial commitments, insurance certificates, warranties, and all other information and data provided pursuant to Section 406.01(B)(2)(c).

AMBIENT BASELINE SOUND PRESSURE LEVEL The L_{90} A-weighted sound pressure emissions level (the level of sound exceeded 90% of the time) for a WECS Project area prior to construction as determined by a baseline acoustics emissions study.

APPLICANT The term “Applicant” when used in connection with or in respect of a WECS shall mean the person(s) and/or entity(ies) which is/are the developer and/or promoter of the WECS Project which prepares and files the initial application with the Area Plan Commission for a WECS Project, and the term shall include all successors and assigns of the initial Applicant. The term “Applicant” shall not include any person or entity which signs the application solely in the capacity as an Owner of an interest in real property in which the WECS shall be located.

CO-APPLICANT The term “Co-Applicant” when used in connection with or in respect of a WECS shall mean a person or entity which executes an application for a WECS solely because of an ownership interest in real property to be used in connection with the WECS.

COLLECTOR Any power line that carries electrical power from one or more wind turbines or individual transformers associated with individual wind turbines to the point of interconnection with the electrical power grid, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the WECS.

CRITICAL WIND SPEED The wind speed at which WECS turbine sound pressure levels are at greatest variance with ambient background sound pressure levels.

DECOMMISSIONING PLAN The term “Decommissioning Plan” with regards to a WECS shall have the meaning and include the requirements set forth at Section 406.01(B)(1)(e).

DECOMMISSIONING SECURITY The term “Decommissioning Security” with regards to a WECS shall have the meaning and meet the requirements as set forth at Section 406.03(A).

DEVELOPMENT PLAN (WECS) The term “Development Plan” with regards to a WECS shall have the meaning and content and meet the requirements set forth in Section 406.01(B).

DRAINAGE PLAN The term “Drainage Plan” with regards to a WECS shall mean the storm water management plan approved by Clinton County Drainage Board for the WECS Project as required by Section 406.01(B)(1)(c).

ECONOMIC DEVELOPMENT AGREEMENT (WECS) With regards to UZO Section 406, An agreement between the WECS Applicant, Owner and/or Operator and the county setting forth the applicant, owner and/or operator’s financial commitment to support economic development and/or provide other financial assistance in the county, or any portion thereof.

OPERATOR The term “Operator” when used in connection with or in respect of a WECS shall mean any person or entity which has the primary involvement with or responsibility for the use, operation, or maintenance of all or a portion of the WECS.

OWNER (WECS) The term “Owner” when used in connection with or in respect of a WECS shall mean any person or entity and his, her, or its assigns and successors in interest which has any ownership interest in

any or all of the necessary devices to convert wind energy into electricity as herein defined as a WECS. The term "Owner" does not include any person or entity whose ownership interest in a WECS is limited to an interest in real property which is used in a WECS.

PROJECTED SOUND EMISSIONS STUDY A study predicting the sound pressure levels that will be produced by a WECS Project. This study shall include a brief summary of the study methodology and a sound contour map in five (5) decibel increments displayed as an overlay on an aerial photograph of the project area to a minimum of 40 decibels. The study shall be done at the maximum turbine sound level as provided by the manufacturer.

TRANSPORTATION PLAN Detailed route plan recommended by the WECS Transportation Committee and approved by the Clinton County Commissioners used for construction and maintenance by a WECS including plans for temporary road closures and traffic re-routing, plans for the repairs, replacement and/or reconstruction of all damage to roads, bridges, signage, vehicles, drainage structures, and other public or private improvements damaged by the WECS construction and maintenance, and the posting of repair, replacement, and maintenance bonds and such other matters as may be determined to be necessary and appropriate to protect the health and safety of motorists and to preserve and maintain the affected roads, bridges, and other public and private improvements.

SECURITY AND SAFETY PLAN The WECS Project site security and safety plan as provided by Section 406.01(B)(2)(b).

WECS NET SALVAGE VALUE The net value of the towers, nacelles, generators, turbines, blades, wires, transformers, and all other saleable parts and commodities which make up the WECS whether sold as used parts or on a commodity/scrap basis or any combination thereof (whichever is greater) after deducting all estimated costs and expenses of dismantling, removal, and transportation and all costs and expenses of sale (including but not limited to all commissions and fees) and the amount necessary to pay and satisfy all liens, security interests, and other encumbrances attaching to the WECS. The commodity/scrap value shall be based on the prior five (5) years average scrap value of the commodity.

WECS PROJECT The collection of WECS - Commercial (as defined) as specified in the Development Plan (alternatively "the WECS Overlay Application") pursuant to this ordinance.

WECS TOWER The support structure to which the nacelle and rotor are attached, freestanding or guyed structure that supports a wind turbine generator.⁶

WECS TOWER HEIGHT The distance from the rotor blade at its highest point to the top surface of the WECS foundation.⁷

WECS TRANSPORTATION COMMITTEE A committee chaired by the Clinton County Highway Supervisor and including the County Sheriff or designee, School Superintendent(s) of the district(s) the WECS will be constructed in or designee(s), Fire Chief(s) with jurisdiction over the WECS Project Area or designee(s), Clinton County Surveyor or designee(s), Soil & Water Conservation District Board Representative or designee(s), and other identified individuals which will review and recommend to the County Commissioners the proposed Transportation Plan submitted by a WECS Applicant.

WIND ENERGY CONVERSION SYSTEM (WECS) - COMMERCIAL All necessary devices referred to in UZO Section 406 that together convert wind energy into electricity and deliver that electricity to a utility's transmission lines, including but not limited to the rotor, nacelle, generator, WECS Tower, electrical components, WECS foundation, transformer, and electrical cabling from the WECS Tower, the substations, switching stations, meteorological towers, communications facilities and other required facilities and equipment, as related to the WECS Project.

⁶ As added in Ordinance 06-04 adopted on April 3, 2006.

⁷ As added in Ordinance 06-04 adopted on April 3, 2006.

WIND ENERGY CONVERSION SYSTEM (WECS) - NON-COMMERCIAL A WECS facility referred to in UZO Section 534 of one or more turbines with a total name plate generating capacity of greater than 20 kW but no more than one Megawatt (MW) for the purpose of producing electricity on one or more contiguous parcels and not for resale or distribution by interconnection with a utility.

WIND ENERGY CONVERSION SYSTEM (WECS) – PRIVATE A WECS facility referred to in UZO Section 535 consisting of not more than one turbine and with a total name plate generating capacity of no more than 20 Kilowatts (kW) for the purpose of generating supplemental electricity for the parcel on which the facility is located.