

CITY OF VILLA GROVE
DOUGLAS COUNTY, ILLINOIS

ORDINANCE NO. 2021-MC03

CHAPTER 157: WIND ENERGY CONVERSION SYSTEMS

PASSED BY THE CITY COUNCIL AND
APPROVED BY THE MAYOR OF THE
CITY OF VILLA GROVE, ILLINOIS
THIS EIGHTH DAY OF FEBUARY, 2021

PUBLISHED IN PAMPHLET FORM BY AUTHORITY OF THE MAYOR AND CITY
COUNCIL OF THE CITY OF VILLA GROVE, DOUGLAS COUNTY, ILLINOIS, THIS
NINTH DAY OF FEBUARY, 2021.

**CITY OF VILLA GROVE
DOUGLAS COUNTY, ILLINOIS**

ORDINANCE 2021-MC03

February 8, 2021

CHAPTER 157: WIND ENERGY CONVERSION SYSTEMS

Section 157.01 Introduction

Section 157.02 Applicability and Interpretation

Section 157.03 Severability

Section 157.04 Prohibitions

Section 157.05 Definitions

Section 157.06 Liability Insurance

Section 157.07 Indemnification, Reimbursement, and Hold Harmless Agreement

Section 157.08 Design and Installation

Section 157.09 Setback Requirements

Section 157.10 Maintenance

Section 157.11 Other Conditions

Section 157.12 Micro-WECS

Section 157.13 Small Wind Energy Conversion System (S-WECS)

Section 157.14 Utility-Scale Wind Energy Conversion Systems (U-SWECS)

Section 157.15 Defaults, Violations, and Remedies

Section 157.16 Administration and Enforcement

Section 157.01. Introduction

1. **TITLE:** This Ordinance shall be known, cited, and referred to as the City of Villa Grove Wind Energy Conversion Systems Ordinance.
2. **PURPOSE:** The purpose of this Ordinance is to provide regulations for the permitting of wind energy conversion systems ("WECS") and provide restrictions for the development of WECS to ensure the quality of life for the citizens of the City of Villa Grove. Nothing in the Ordinance is meant to augment or diminish existing opportunities for public participation.
3. **EFFECTIVE DATE:** This Ordinance shall be in full force and effect from and after its passage.

Section 157.02. Applicability and Interpretation

This Ordinance governs the siting of WECS and Substations utilized for commercial and non-commercial use within the City of Villa Grove and the one-and-one-half mile area surrounding the City.

The provisions of these regulations shall be held to the minimum requirements adopted for the promotion and preservation of public health, safety and general welfare of the City. These regulations are not intended to repeal, abrogate, annul or in any manner interfere with existing regulations or laws of the City nor conflict with any statutes of the State of Illinois, except that these regulations shall prevail in cases where these regulations impose a greater restriction than is provided by existing statutes, laws or regulations.

Nothing in this Ordinance is intended to preempt any other applicable State or Federal laws and/or regulations.

Section 157.03. Severability

If any section, paragraph, clause, phrase or part of this Ordinance is for any reason held invalid, such decision shall not affect the validity of the remaining provisions of these regulations, and the application of those provisions to any persons or circumstances shall not be affected thereby.

Section 157.04. Prohibitions

No WECS or Substation shall be constructed, erected, installed, or located within the City of Villa Grove and the surrounding one-and-one-half mile area unless prior approval has been obtained for each individual WECS or Substation pursuant to this Ordinance.

Section 157.05. Definitions

The following words and terms, when used in this Ordinance, shall have the meaning set forth, except where otherwise specifically indicated.

For the purposes of this Ordinance, the following definitions are adopted:

1. "Applicant" shall mean the entity or person who submits to the City of Villa Grove an application for the siting of any WECS or substation or thereafter operates or owns a WECS.
2. "FAA" refers to the Federal Aviation Administration.
3. "Fall Zone" shall mean the area, defined as the farthest distance from the WECS Tower base, in which a WECS Tower will collapse in the event of a structural failure. This area is the total height of the structure plus length of blade.
4. "Feeder Line" shall mean 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 electric power grid.
5. "Financial Assurance" shall mean a reasonable assurance from a credit worthy party, examples of which include, a surety bond, performance bond, trust instrument, cash escrow, or irrevocable letter of credit.
6. "Host Agreement" shall mean an agreement between the Applicant and the City which addresses the economic development and growth impacts to the City caused by hosting any WECS within the borders of the City and the 1 ½ mile area surrounding the City. It may also be referenced as a "Community Benefit Agreement".
7. "Meteorological Tower" shall mean, for the purposes of this Chapter, towers which are erected primarily to measure wind speed and direction plus other data relevant to siting WECS. For purposes of this ordinance, Meteorological Towers do not include towers and equipment used by airports, the Illinois Department of Transportation, or other similar applications or government agencies, to monitor weather conditions.
8. "Micro-WECS" shall mean an electric generating WECS device which has a rated nameplate capacity of up to 5 kilowatts and which is incidental and subordinate to a permitted use on the same parcel. A system is considered a Micro-WECS only if it supplies electrical power solely for on-site use, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed for on-site use may be used by the utility company.
9. "Non-Participating Land Owner" refers to a person who owns land or real property in the WECS Regulatory Jurisdiction who is not an Applicant, Owner or Operator and has not entered into a contract, lease, option or agreement with the Applicant, Owner or Operator concerning a WECS project within the WECS Regulatory Jurisdiction.
10. "Off-Grid System(s)" refers to a system that supplies electrical power solely for on-site use.

11. "Operator" refers to the entity responsible for day-to-day operation and maintenance of the WECS, including any third party subcontractors.
12. "Owner" of a WECS refers to the entity or entities with an equity interest in the WECS including their respective successors and assigns. Owner does not mean the real property owner where the WECS is located unless the property owner has an equity interest in the WECS. Owner also does not mean any person holding a security interest in the WECS solely to secure an extension of credit, or a person foreclosing on such a security interest provided that after foreclosure such person seeks to sell the WECS within one year of such event.
13. "Participating Land Owner" refers to a person who owns land in the WECS Regulatory Jurisdiction and is either personally the Applicant, Owner or Operator of a WECS or has entered into a contract, lease, option or other agreement with an Applicant, Owner or Operator of a WECS.
14. "Person" refers to a real person or legal entity as recognized by Illinois law.
15. "Primary Structure" shall mean the structure that can be occupied by one or more persons for either business or personal reasons, including residences, commercial buildings, schools, churches, hospitals, retail buildings, day care facilities, hunting sheds, storage sheds, pool houses, garages and barns.
16. "Professional Engineer" refers to a qualified individual who is licensed as a professional engineer in the State of Illinois.
17. "Property Line" refers to the boundary line of the area over which the entity applying for a WECS permit has legal control for the purposes of installation of a WECS.
18. "Public Conservation Lands" shall mean land owned in fee title by state or federal agencies and managed specifically for conservation purposes, including, but not limited to, state wildlife management areas, state and federal parks, state scientific and natural areas, federal wildlife refuges and waterfowl production areas. For the purposes of this Chapter public conservation lands will also include lands owned in fee title by nonprofit conservation organizations. Public conservation lands do not include private lands upon which conservation easements have been sold to public resource management agencies or nonprofit conservation organizations.
19. "Rated Wind Speed" shall mean the lowest wind speed at which the rated output power of an electric-generating wind device is produced.
20. "Rotor" shall mean an element of a wind energy system that acts as a multibladed airfoil assembly, thereby extracting through rotation, kinetic energy directly from the wind.
21. "Rotor Diameter" refers to the diameter of the circle described by the moving rotor blades.

22. "Shadow Flicker" refers to the alternating changes in light intensity caused by the moving blade of a WECS casting shadows on the ground and objects, such as a window and dwelling.
23. "Small Wind Energy Conversion System (S-WECS)" shall mean an electric generating wind device which has a rated nameplate capacity of greater than 5 kilowatts and up to 100 kilowatts operating at the rated wind speed and which is incidental and subordinate to a permitted use on the same parcel.
24. "Sound Pressure" refers to the average weight at which sound energy is transmitted through a unit area in a specified direction. The pressure of the sound measured at a receiver.
25. "Sound Pressure Level" refers to the sound pressure mapped to a logarithmic scale in reported in decibels (db).
26. "Structural Engineer" refers to a qualified individual who is licensed as a structural engineer in the State of Illinois.
27. "Subject Property" refers to the real estate where a WECS is proposed to be located.
28. "Substation" refers to any electrical facility designed to convert electricity produced by wind turbines for interconnection with high voltage transmission lines.
29. "Total Height" refers to the distance measured from grade to the upper most extension of any blade or the maximum height reached by any part of a WECS.
30. "Tower" shall mean the support structure to which the nacelle and rotor are attached, free standing or guyed structure that supports the wind turbine generator.
31. "Tower Height" refers to the distance from the rotor blade at its highest point to the top surface of the WECS foundation.
32. "Transmission Line" refers to electrical power lines that carry voltages of at least 69,000 volts (69 KV) and are primarily used to carry electrical energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.
33. "Utility-Scale Wind Energy Conversion System (U-SWECS)" refers to any device that converts wind energy into electricity with a name plate capacity of 100 kilowatts or greater through the use of a wind turbine generator which includes the turbine, blade, tower base and pad transformer, if any.
34. "Wind Energy Conversion Systems ("WECS")" refers to any device or combination of devices that convert wind energy into electricity through the use of a wind turbine generator which includes, but is not limited to, the turbine, blade, tower, base, pad transformer, supports, guy wires, generators and any other accessory equipment, if any, including all U-SWECS, S-WECS and micro-WECS.

35. "WECS Project" refers to the collection of WECS and Substations as specified in the siting approval application.
36. "WECS Regulatory Jurisdiction" refers to the jurisdictional limits of the City of Villa Grove and the 1½ miles surrounding its zoning jurisdiction.
37. "Wind Farm" refers to one or more Utility-Scale Wind Energy Conversion Systems (U-SWECS) which are intended to produce electricity for sale to a rate regulated or non-regulated utility or for use off site.
38. "Wind Turbine" and/or "Wind Turbine Generator" shall mean any piece of electrical generating equipment that converts the kinetic energy of moving or blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.
39. "Wind Site Assessment" refers to any assessment meant to determine the wind speeds at a specific area and the feasibility of use that site for construction of a wind energy system.

Section 157.06. Liability Insurance

The Owner or Operator of any S-WECS or U-SWECS shall maintain a current general liability policy covering bodily injury and property damage and name City of Villa Grove as an additional insured with limits of at least Five Million Dollars and Zero Cents (\$5,000,000.00) per occurrence and of at least Ten Million Dollars and Zero Cents (\$10,000,000.00) of annual aggregate with a deductible of no more than Five Thousand Dollars and Zero Cents (\$5,000.00).

Section 157.07. Indemnification, Reimbursement, and Hold Harmless Agreement

Any application for any WECS shall include an agreement in a form acceptable to the City by the Applicant, Owner, or Operator to the Applicant to indemnify and hold harmless the City and the City's officers, Board members, trustees, employees, and agents from and against any and all damages, costs, remediation, claims, demands, lawsuits, appeals, losses, attorneys' fees and expenses to the extent arising out of or resulting from a permit authorizing the development, construction, building, operation, and/or maintenance of a WECS, WECS Project, Substation or Wind Farm.

Section 157.08. Design and Installation

Any provisions contained in this Section are generally applicable to all WECS unless otherwise specifically stated in the applicable Section.

1. Design Safety Certification and Conformance to Codes and Standards: WECS and all components shall conform to all applicable industry standards, including those of the American National Standards Institute ("ANSI") and the International Electrical Commission. Applicants shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories ("UL"), Det Norske Veritas ("DNV"), Germanischer Lloyd Wind Energie ("CGL"), or an equivalent third party. The WECS shall comply with all applicable local and

county codes for electrical, mechanical and structural components of the facility. All documents provided for review shall be stamped by a Professional Engineer.

2. Each application shall contain a certification by a Structural Engineer that the foundation and tower design of the WECS are within accepted professional standards for the given proposed location.
3. Controls and Brakes: Any and all WECS shall be equipped with manual and automatic controls and mechanical brakes to limit rotation of the blades to a speed below the design limits of the WECS. A Professional Engineer must certify that the rotor and overspeed control design and fabrication conform to good engineering practices. No changes or alterations from the certified design shall be permitted unless accompanied by Professional Engineer.
4. Electrical Lines: Any and all electrical wires and lines connecting WECS to other WECS or substation shall be installed underground.
5. Utilities: All electrical components of any WECS shall conform to all applicable local utility standards and national electric codes.
6. Color, Finish, and Appearance: The tower and the blades of the WECS shall be uniform in style and color and shall be off-white, light gray, or other neutral color. The finish of the tower and the blades shall be flat or matte and nonreflective. The required coloration and finish shall be maintained throughout the life of the system. The towers and blades shall be uniform in direction of blade rotation. Any on site buildings shall be designed such that they are unobtrusive to minimize the industrial character of the project. All colors, finishes and design shall conform to all applicable FAA requirements. Except for required warnings and tower identification, no lettering, company insignia, advertising or graphics shall be on any part of the tower, hub or the blades.
7. Signage: No Wind Tower shall have any advertising material, writing, picture, or signage other than warning, equipment identification or ownership information. This prohibition shall include the attachment of any flag, decorative sign, streamers, pennants, ribbons, spinners or waiving, fluttering or revolving devices, but not including meteorological/weather devices. Signs warning of the high voltage associated with a WECS shall be posted at every entrance to a WECS and at the base of all pad mounted transformers and substations. A sign that provides emergency contact information, such as a phone number, shall be posted near each tower and operations and maintenance buildings. Visible, reflective, colored objects such as flags, reflectors or tape shall be placed on the anchor points of guywires, if any, and along the guywires up to a height of not less than eight feet (8') from the ground. A sign that provides emergency contact information, such as phone number, shall be posted near the tower and the operations and maintenance building and each tower shall have posted a unique number for identification purposes.

8. Power Lines: All electrical control wiring and power lines shall be wireless or not aboveground except where wind farm collector wiring is brought together for connection to the transmission or distribution network, adjacent to that network.
9. Access Roads: The applicant shall minimize the number and width of access roads, minimize cut and fill on sloping terrain and use natural terrain where feasible for these access points.
10. Lighting: Towers, blades, and/or other WECS components shall not be artificially lit unless otherwise required by the FAA. If required by the FAA to be lit, the lights shall meet the FAA requirements at the lowest intensity allowed. U-SWECS shall use Aircraft Detection Lighting Systems approved by the FAA which keep all lights off until an aircraft approaches. No glare shall extend beyond the boundaries of the WECS. Red lights which are timed to activate at intervals in unison are required for nighttime illumination. The applicant shall use and seek leave from the FAA to utilize the least intrusive lighting possible. The flash intervals of the lighting scheme of the entire WECS project shall be synchronized.
11. Landscaping: Applicant shall minimize the disruption of natural environment, retain existing vegetation and native plant species to the maximum extent feasible and replant with native vegetation. If existing vegetation is disturbed during construction.
12. Climb Prevention: Any and all WECS shall be designed to prevent unauthorized access to electrical and mechanical components or access to the towers on the site. All U-SWECS must utilize a monopole design with an internal ladder and locked access door and all other WECS such design is preferred and guy wired towers are disfavored. All towers shall not be climbable from the ground to fifteen feet (15') aboveground and all access doors to towers and equipment shall be lockable.
13. Avian and Wildlife Impact: Applicant of any U-SWECS or S-WECS shall have a third party, qualified professional conduct an analysis to identify and assess any potential impacts on wildlife and endangered species. The Applicant shall take the appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis. The Applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.
14. Underground Cable Warnings: All cables, except where installed by trenchless methods, shall have an underground warning tape buried a minimum 24 inches below grade and a minimum of 12 inches above cable in the same trench. The warning tape shall be 6" wide polyethylene plastic, shall be red in color, and shall have the appropriate warning stenciled on it.
15. Agency Permits: In addition to any and all permits required by the City, Applicant shall obtain all required permits from other State and Federal governmental agencies (such as the Federal Aviation Administration) prior to commencing

construction or as otherwise required by the applicable laws and regulations. Copies or evidence of such permits shall be submitted to the City.

16. **Signal Interference:** WECS shall not be installed in any location where its proximity to existing fixed broadcast, retransmission or reception antennas for radio, television or wireless phone or other personal communication systems would produce electromagnetic interference with signal transmission or reception unless the applicant provides a replacement signal to the affected party that will restore reception to at least the level present before operation of the wind energy system. WECS shall not be installed in any location within the line of sight of an existing microwave communications link where operation of the wind energy system is likely to produce electromagnetic interference in the link's operation unless the interference is insignificant. WECS shall not be installed to negatively alter any Doppler Radar or other warning system of any local or national weather service. The Applicant shall provide the project summary and site plan to all microwave transmission providers, weather warning services and all communication tower operators within five miles of any WECS to address potential conflicts. If after construction of the WECS, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, the Owner or Operator shall take reasonable steps to respond to and remedy the complaint.

Section 157.09. Setback Requirements

1. All WECS Towers shall be set back at least 3,500 feet, from any Primary Structure on a parcel of real property which is participating in a WECS project by leasing, contracting, owning, selling, or allowing any portion of said real property to be used for the placement of a WECS. The distance for the participating landowner setback shall be measured from the point of the Primary Structure foundation closest to the WECS Tower to the center of the WECS Tower foundation. A Participating Landowner may waive this requirement subject to City approval of a variance but in no case shall the turbine be closer than 1.1 times the turbine height from any primary structure. All WECS shall be set back from a Primary Structure on non-participating lands by at least 5,000 feet.
2. All WECS shall be set back at least 3,500 feet from school property lines.
3. All WECS Towers shall be set back a distance of at least 3,500 feet from public roads, third party transmission lines, and communication towers.
4. All WECS Towers shall be set back a distance of at least 3,500 feet from adjacent Property Lines. This requirement can be waived by a Landowner subject to an approved variance application with the City but in no event can a turbine be closer to a property line than 1.1 times turbine height.
5. All WECS Towers shall be set back a distance of at least 3,500 feet from the Property Line of any Public Conservation Lands, and a distance of at least 3,500 feet from any river bluff located on public or private property.

6. The Applicant will need to obtain a variance from the City upon waiver by a property owner of any of the above setback requirements, which variance request may or may not be approved by the City. Any waiver of any of the above setback requirements shall run with the land and be recorded as part of the chain of title in the deed of the subject property.

Section 157.10. Maintenance

1. The Owner or Operator of the WECS must submit, on an annual basis, a summary of the operation and maintenance reports to the City. In addition to the above annual summary, the Owner or Operator must furnish such operation and maintenance reports as the City reasonably requests.
2. Any physical modification to the WECS that alters the mechanical load, mechanical load path, or major electrical components shall require re-certification under this Ordinance. Like-kind replacements shall not require re-certification.
3. An Applicant or successor in interest shall have the facility inspected annually by third party qualified wind power professionals at their own expense. The third party qualified wind power professional shall be subject to the approval of the City's Engineer or designated representative. Within 15 days of the inspection a copy of any report must be provided to the City. The WECS may not operate unless a certificate is provided to the City indicating that the annual maintenance has been completed and the facility is in good working condition. Failure to provide this annual certification may cause the revocation of the Special Use Permit.
4. Coordination with Local Fire Department
 - a. The Applicant, Owner, or Operator shall submit to the local fire department a copy of the Site Plan.
 - b. The Applicant, Owner, or Operator will communicate with any fire department(s) providing fire protection for the areas of the proposed WECS and upon request by the fire department cooperate in the development or revision of the fire department's emergency response plan.
 - c. The Applicant, Owner, or Operator shall where reasonably possible link the WECS project's fire detection systems with the appropriate fire departments.
 - d. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
5. Materials Handling, Storage and Disposal
 - a. All solid wastes related to the construction, operation and maintenance of the WECS shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.

- b. All hazardous materials related to the construction, operation and maintenance of the WECS shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.
- 6. Complaint Resolution
 - a. The Applicant of any U-SWECS or S-WECS shall develop a process to resolve any complaints that may arise from neighboring property owners during the construction and operation of the WECS. The process shall use an independent mediator and shall include a time limit for acting on a complaint that is received. The process shall not preclude the local government from acting on a complaint. The Applicant shall provide to the nearby residents a phone number of the project manager during the construction of the facility if a problem should arise.
 - b. Applicant of any U-SWECS or S-WECS will respond to all complaints from persons directly affected by the WECS project within 48 hours, will attempt to resolve all complaints in a prompt and responsible manner, will keep a log of all complaints and the method of resolution, will make the log available to City, and will agree to participate in a non-binding mediation for complaints that are not resolved with the cost of such to be paid directly by Applicant.
- 7. Federal and State Requirement Compliance - The Applicant will comply with all applicable laws and regulations and WECS shall meet or exceed any standards and regulation of the FAA and any other agency of the state or federal government with authority to regulate WECS.
- 8. City Access - The Applicant will allow City officials or their agents to investigate any issues arising from the Project at and by entering the special use area and providing any requested documentation.

Section 157.11. Other Conditions

The City may impose any additional conditions not contained herein to a permit to further the purposes and intent of this ordinance or to minimize potential adverse impacts on citizens or other property in the area.

Section 157.12. Micro-WECS

- 1. All Micro-WECS are prohibited in all zoning districts except where prior approval has been obtained pursuant to the procedure for a building permit application and subject to the terms herein.
- 2. General Regulations
 - a. The building permit application for Micro-WECS shall include standard drawings of the wind turbine structure, including the tower and base.

- b. The Micro-WECS must comply with any and all regulations of the Illinois Pollution Control Board, and any other applicable State and Federal laws.
 - c. The Micro-WECS shall not exceed 15 ft. in height above the highest point of the real property structure.
 - d. The Micro-WECS shall be no higher than 50 ft. from ground level.
 - e. No Micro-WECS shall be installed until written evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator.
3. Agricultural and Residential Districts
- a. Micro-WECS shall not exceed fifteen (15) feet in height above the highest point of any house or building on the Subject Property. Micro-WECS can be mounted to the side of the house or building or be on a free standing pole of no more than 50 feet tall.
 - b. The blade tip of any rotor shall, at its lowest point, have ground clearance of no less than fifteen (15) feet, as measured at the lowest point of the arc of the blades. The lowest point of the arc of the blade shall also be ten (10) feet above the height of any structure within fifty (50) feet of the base.
 - c. Only one (1) Micro-WECS may be sited if approved per lot in residential districts.
4. Business and Industrial Districts
- a. Micro-WECS shall not exceed fifteen (15) feet in height above the highest point of the structure on the Subject Property. Micro-WECS can be mounted to the side of a structure or be on a free standing pole of no more than 50 feet tall.
 - b. The blade tip of any rotor shall, at its lowest point, have ground clearance of no less than fifteen (15) feet, as measured at the lowest point of the arc of the blades. The lowest point of the arc of the blade shall also be ten (10) feet above the height of any structure within fifty (50) feet of the base.

Section 157.13. Small Wind Energy Conversion System (S-WECS)

- 1. All Small Wind Energy Conversion Systems (S-WECS) are prohibited in all zoning districts except for the Agricultural District only if allowed as a Special Use.
- 2. Special Use Permit Application Requirements
 - a. The Special Use application for S-WECS shall include standard drawings of the wind turbine structure, including the tower and base and an

engineering analysis of the system showing compliance with the adopted building codes of the City and certified by an Illinois licensed design professional.

- b. The Special Use application shall include a certification from an engineering or acoustical professional that the Illinois Pollution Control Board regulations will not be violated by the proposed Special Use. Said application shall also include a base line study of the back ground noise levels at the property lines of all adjacent properties.
- c. The application shall include the certification from an appropriate design engineer or other professional approved by the City of Villa Grove that there shall be no more than 10 hours per year in shadow flicker on any non-participating commercial or residential structure caused by the S-WECS.
- d. The Special Use Applicant shall include an agreement to indemnify and hold harmless the City as outlined in Section 6 of this Ordinance.

3. General Regulations

- a. Only one (1) S-WECS may be approved per zoning lot.
- b. S-WECS may only be approved as an accessory use to a principal structure, and no S-WECS shall be approved on a vacant parcel.
- c. Climbing Apparatus: All climbing apparatus shall be located at least fifteen (15) feet above the ground, and the tower must be designed to prevent climbing within the first fifteen (15) feet from top of foundation.
- d. S-WECS must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- e. The sound pressure levels generated by a S-WECS shall comply with all Illinois Pollution Control Board noise regulations. To demonstrate compliance with Illinois Pollution Control Board regulatory limits, all measurements must be taken at the borders of any non-participating property. The Applicant must immediately cease any violation of the Illinois Pollution Control Board regulations unless said violation is excused and waived by the affected landowners and occupants.
- f. No S-WECS shall be installed until evidence has been provided that the utility company has been informed of the owner or operator's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
- g. Any S-WECS that is not operated for a continuous period of three (3) months shall be considered abandoned, and the owners of such system shall remove all structures within ninety (90) days of receipt of notice from the

City notifying the owner of such abandonment. If the S-WECS is not removed within ninety (90) days, the City may remove all structures at the owner's expense.

- h. A monopole construction is preferred for all S-WECS without the use of guy wires; however, if guy wires or anchoring systems are employed they shall extend no closer than 30 feet from an adjacent property line.
- i. The S-WECS shall not have any advertising material, writing, pictures, or signage other than warning, equipment identification or ownership information. This prohibition includes, but is not limited to, the attachment of any flag, decorative sign, lights, streamers, pennants, ribbons, spinners or waiving, fluttering or revolving devices, which are not directly used for the generation of energy, but not including meteorological/weather devices.
- j. S-WECS shall not operate so as to cause microwave, television, weather radar, radio or navigation interference to any non-participating landowner, and if such interference occurs it shall be mitigated by the owner or operator.

4. Agricultural District

- a. Maximum Height (any fraction of an acre will be rounded down to the closest whole number):

Lot Size (Acres)	Maximum Tower Height (feet)
1 to 5	50
5 to 19	70
20+	100

- b. Minimum lot size — one (1) acre.
- c. The blade tip of any rotor shall, at its lowest point, have ground clearance of no less than fifteen (15) feet, as measured at the lowest point of the arc of the blades. The lowest point of the arc of the blade shall also be ten (10) feet above the height of any structure within fifty (50) feet of the base.

Section 157.14. Utility-Scale Wind Energy Conversion Systems (U-SWECS)

- 1. All Utility-Scale Wind Energy Conversion Systems (U-SWECS) are prohibited in all zoning districts except the Agricultural District and then only if allowed as a Special Use.
- 2. Special Use Permit Application Requirements

- a. The Applicant for a U-SWECS Special Use shall file 25 copies of the Application, including ten (10) full size copies with exhibits and fifteen (15) reduced copies of all exhibits with the City together with the appropriate application and site review fees. The Applicant may be required to provide additional copies of the Application to the City upon request.
- b. Any executed Community Benefit Agreement and/or Host Agreement shall be appended to, and included as part of any U-SWECS Special Use application filed with the City. The content of said Community Benefit Agreement and/or Host Agreement will be discussed and negotiated between the Applicant and the City's appointed counsel and/or representatives and will address the issues including, but not limited to, payments in lieu of taxes, economic issues, renewable energy credit sharing, carbon credit sharing, reimbursement of City expenses including consultants, experts, and outside attorneys' fees. The existence of an executed Community Benefit Agreement and/or Host Agreement or the lack thereof shall not in any way obligate, preclude, assure or guaranty that any zoning or building permit shall or shall not be issued.
- c. Site Plan showing the following:
 - i. Subject Property - Survey of property or properties including any and all existing and proposed structures on the property such as buildings, U-SWECS towers, substations, and service roads.
 - ii. A depiction of the distance of the U-SWECS to nearest structure and residential dwellings.
 - iii. Setback requirements.
 - iv. Any floodplains or wetlands on the Subject Property.
 - v. Any existing or proposed roads and driveways.
 - vi. Routes to be utilized for transportation of components of U-SWECS.
 - vii. Location, height and dimensions of all existing and proposed structures and fencing on the Subject Property.
 - viii. Any easements or above-ground utilities on the Subject Property.
 - ix. Surrounding zoning and uses within 3,500 feet of the Subject Property including any existing structures.
 - x. All existing proposed underground or above ground utilities.

- xii. All rights of way, wooded areas, and public conservation lands on the Subject Property.
 - xiii. Ingress and egress from the site as proposed during construction thereafter which indicates the proposed road service and cover, dust control measures, the width and length of access routes.
 - xiv. Certify easements, contracts, waivers, and option agreements for proposed use of the land.
 - xv. Utility inter-connection details and a copy of written notification of the utility company requesting the proposed interconnection.
 - xvi. A description of the hours of operation for construction of the maintenance of the facility, the number of employees expected during construction and after construction is completed, and the type of traffic expected to be generated at the site during construction and after.
- d. Project Proposal that includes the following:
- i. Name, company, address and phone number of the owner, developer or any other interested party and Participating Landowner. The Applicant shall describe its legal standing as to whether it is a corporation, limited liability company, individual or other legal entity and shall identify its officers and directors, shareholders and members. It shall also identify its parent and subsidiary companies. The same information shall be provided for all Owners and Operators of the U-SWECS system. Proof must be included that the Applicant has legal authority to bring the application in the name of any Participating Landowner, Owner, Operator or other interested party.
 - ii. Project summary including the nameplate generating capacity; equipment manufacturer; type and number of U-SWECS.
 - iii. Proposed maximum height for each electric-generating wind device and the diameter of each U-SWECS rotor.
 - iv. Evidence that the site is suitable and feasible for a U-SWECS.
 - v. Certification that all electronic equipment conforms to all applicable City, State and National Codes.
 - vi. An agreement indemnifying and holding harmless the City and its officials from and against any and all claims, demands, suits, causes of action, damages, injuries, costs, expenses, and liabilities,

including attorney fees, arising from the approval and construction of the wind farm facility.

- vii. Proof that the wind farm facility shall be operated without offensive noise, vibration, dust, smoke, odor, glare, lighting, risk of fire, explosion or other accident and shall not be detrimental to the public health, safety and/or general welfare of the immediate neighborhood or community at large.
 - viii. An Avian and Wildlife Impact Analysis.
 - ix. An Environmental Impact Study.
 - x. Noise: A modeling analysis of the proposed site shall be included in the application performed by a third party independent professional approved by the City Administrator which model shall predict the Sound Pressure Levels at all properties in the footprint and within two miles of a U-SWECS. To demonstrate compliance with the Illinois Pollution Control Board regulatory limits the modeling must be performed at the property line of the receiving property. A night-time baseline sound pressure study must be done at all non-participating properties within one mile of a proposed U-SWECS before construction commences.
- e. Property Value Protection Plan: A plan shall be included to protect the property values of any non-participating real property owner within two (2) miles of a U-SWECS tower or substation. Any such plan is subject to approval by the City.
 - f. Federal and State Law Compliance: The Applicant shall provide evidence that the U-SWECS meets or exceeds any and all standards and regulations of any agency, state or federal government with authority to regulate U-SWECS including, but not limited to, providing a determination that the proposed structure(s) are compliant with all FAA regulations and do not interfere or present a hazard to any public or private aircraft.
 - g. Emergency services plan shall be included which provides:
 - i. Emergency shutdown procedures.
 - ii. A street address for each electric generating wind device and such address shall be prominently displayed along the road in front of the facility.
 - iii. A plan for appropriate warning signs and safety procedures including locking portholes and climbing prevention techniques.

- iv. A formal education plan with all emergency service providers involved in the administration of emergency services to the site(s).
- h. Shadow Flicker Study: The Applicant shall have a third party qualified professional approved by the City conduct an analysis on the potential shadow flicker on the non-participating properties and public roadways within two (2) miles of any U-SWECS. The analysis shall identify locations of shadow flicker that may be caused by the project and any expected durations of flicker at these locations from sunrise to sunset over the course of a year. The analysis shall include measures to eliminate or mitigate these problems at the residences of Non-Participating Landowners impacted by the shadow flicker. The Application shall include the certification from the third party qualified professional that there shall be no more than 10 hours per year in shadow flicker on any Non-Participating Landowners property unless waived by the Landowner. The study is subject to approval by the City.
- i. Project Proposal Road Use Plan: The application shall include a Road Use Plan that shall identify the City, Township, and County roads which will be used for construction, maintenance and transportation of supplies for the U-SWECS. All routes for egress and ingress need to be shown and identified. The routing shall be subject to approval of the designated Villa Grove representative. The Applicant shall provide a pre-construction baseline survey performed by a qualified engineer approved by the City, to determine existing road conditions for assessing potential future damage due to U-SWECS related traffic. If any damage or change to the roadways will occur, a road use agreement must be entered into and approved by the City or its designated representative. The Applicant's Road Use Plan must ameliorate any and all damage, installation or placement of roads that might be required. The Road Use Agreement must be executed by all parties and require that Applicant provide cash, an escrow account, bond or other financial assurance in an amount and form approved by the City of Villa Grove to cover all potential future damage. Any road construction or repair shall be completed in accordance with recognized standards for road construction that are subject to the approval of the City's designated engineer or representative. If the City determines at any time that any road construction or repairs have not been completed in accordance with these recognized standards, the Applicant will be responsible for correcting the work to the satisfaction of the City's designated engineer or representative. Any vehicle that will exceed the maximum allowable weight to a City roadway will only be permitted upon the entry of a roadway agreement recommended by the City or designated representative.
- j. Drainage Plan: The application shall include a drainage plan which provides that any damage to waterways, drainage ditches, field tiles or any other infrastructure caused by construction or maintenance of the U-SWECS shall be completely repaired to near original condition so as not to impede the

natural flow of water. The plan shall provide that all repairs will be completed within seven (7) days unless otherwise agreed to by the City and affected landowners. The plan must provide that the WECS owner will notify the City or its designated representative when the construction of any part of the project encounters underground field and drainage tiles and will provide proposals for remediation which will be subject to the approval of the City or its designated representative. The plan shall provide that all existing drainage tiles will be crossed by private access roads shall be removed and replaced with load resistant tile. The plan shall further provide that financial assurances will be posted in the form of cash, an escrow account, surety bond or letter of credit in a form and amount acceptable to the City to assure compliance with the drainage plan.

- k. Decommissioning Plan: The Applicant shall provide a decommissioning plan for the U-SWECS in the event that any U-SWECS are taken out of service, abandoned or become inoperable. If a U-SWECS is out of service or not producing electrical energy for a period of three (3) months, it will be deemed non-operational and decommissioning removal of that facility will need to commence according to the provisions approved by the City of Villa Grove. The decommissioning plan shall at a minimum provide that the U-SWECS will be removed within 90 days of the U-SWECS being deemed non-operational and that:
 - i. All wind turbines, above-ground improvements, including access roads, and outside storage will be removed and soils returned to pre-construction condition.
 - ii. Foundations, pads and underground electrical wires will be reclaimed to a depth of eight feet below the surface of the ground.
 - iii. Hazardous material from the property will be disposed of in accordance with federal and state law.
 - iv. Cost estimates will be provided of the decommissioning facility prepared by a Professional Engineer or contractor who has expertise in the removal of U-SWECS and is approved by the City Administrator or its appointed representative. The decommissioning cost estimate must explicitly detail the cost before considering any projected salvage value of out of service U-SWECS.
 - v. The decommissioning plan must provide that there shall be a decommissioning agreement executed by the Applicant and the City which provides financial assurances posted in favor of the City and as approved by the City in cash, escrow account, surety bond, performance bond or irrevocable letter of credit before any construction commences.

- vi. The decommissioning plan must include a restoration plan to identify how the site will be restored to its original condition or improved.
- l. Complaint Resolution Plan: The Applicant shall develop a process to resolve any complaints that may arise from neighboring property owners or Non-Participating Landowners during the construction and operation of the U-SWECS. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint that is received. The process shall not preclude the local government from acting on a complaint.
- m. Application Fee and Cost Reimbursement – Each U-SWECS Application shall include a fifty thousand dollar (\$50,000.00) non-refundable application fee which may be used to reimburse any City personnel, outside consultants, engineers or attorneys needed to review the application. The Applicant must also acknowledge that it will be responsible for the reimbursement of any such reasonable fees and costs which exceed the \$50,000.00 application fee.
- n. Outdoor Storage: Only the outdoor storage of materials, vehicles and equipment that directly support the operation and maintenance of the wind farm facility shall be allowed with the exception of outdoor storage that is expressly allowed in the zoning district as specified herein. The City shall have the discretion in determining whether the outdoor storage is in compliance with this provision. In any event all outdoor storage areas shall be paved with a bituminous surface and fenced to prevent viewing from adjoining properties and uses.
- o. Each U-SWECS shall be marked with a visible identification number to assist with provision of emergency services, and the Applicant shall file with the appropriate local fire protection district and police department, a wind farm facility map identifying wind turbine locations and numbers.
- p. Electrical Components: All electrical components of the wind farm facility shall conform to applicable local, state, and national codes, and relevant national and international standards (e.g. ANSI and International Electrical Commission).
- q. Controls/Brakes: All wind towers shall be equipped with a redundant braking system. This includes both aerodynamic overspend 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 overspend protection.

- r. Shadow Flicker: The U-SWECS shall not cause shadow flicker in excess of 10 hours annually at the residences or commercial buildings of any Non-Participating Landowner properties unless waived by the landowner.
- s. Noise: Noise levels must comply with the Illinois Pollution Control Board Regulations. After the U-SWECS are constructed and operational, a third party shall complete a sound pressure analysis of the existing conditions. This analysis shall be completed and returned to the City of Villa Grove within 60 days. The Applicant, Owner or Operator must immediately cease any violation of the Illinois Pollution Control Board regulations unless those violations are excused and waived in writing by the effected landowner and occupant and in no event shall U-SWECS exceed 5 decibels above the night-time baseline sound pressure levels as identified in the pre-construction study. All analyses and studies are subject to the approval of the City.
- t. Signal and electromagnetic interference: U-SWECS shall not be installed at any location where its proximity to existing fixed broadcast, retransmission, reception antennas for radio, Doppler radar systems, weather warning systems, television or wireless phone or other personal communication systems would otherwise produce electromagnetic interference with the signal transmission or otherwise negatively impact reception unless the Applicant provides a replacement signal for the affected party that would restore reception to at least the level present before the operation of the U-SWECS. U-SWECS shall not be installed within the line of site of an existing microwave communications link or Doppler radar or weather warning system unless the interference is insignificant to be reasonably determined by the City.
- u. Waste Disposal: All solid waste generated from including, but not limited to, supplies, equipment, parts, packaging or operation of the facility shall be removed from the site immediately and disposed of in an appropriate manner. Any hazardous waste which is generated by the facility, including, but not limited to, lubricating materials shall be removed consistent with all local, state and federal rules and regulations.
- v. Conformance Industry and Code Standard/Engineer Certification: The U-SWECS shall comply with all applicable local and county codes for the electrical, mechanical and structural components of the facility. All documents provided for review shall be stamped and signed by a professional engineer.
- w. Operation and Maintenance Inspections: Each Owner, Operator or Successor in interest shall have the facility inspected annually by a third party qualified wind power professional at their own expense. The third party qualified wind power professional shall be subject to the approval of the City or its designated representative. Within fifteen (15) days of the

inspection a copy of any report must be provided to the City. U-SWECS may not operate unless a certificate is provided to the City indicating the annual maintenance has been completed and the facility is in good working condition. Failure to provide this certification may cause the revocation of the Special Use permit.

3. Size Regulations

- a. Maximum Height - Total height of the U-SWECS tower with blade or meteorological tower used in conjunction with the U-SWECS shall not exceed Five Hundred (500) feet.
- b. Minimum Lot Size – Forty Acres for U-SWECS and one thousand (1,000) acres (any combination of rented, owned, or leased property) for a Wind Farm.
- c. The blade tip or any rotor of each U-SWECS shall, at its lowest point, have ground clearance of no less than seventy five (75) feet.

Section 157.15. Defaults, Violations, and Remedies

1. The Applicant's, Owner's, or Operator's failure to materially comply with any of the above provisions shall constitute a default under this Ordinance.
2. Prior to implementation of the applicable City procedures for the resolution of such default(s), the appropriate City body shall first provide written notice to the Owner and Operator, setting forth the alleged default(s). Such written notice shall provide the Owner and Operator a reasonable time period, not to exceed 60 days, for good faith negotiations to resolve the alleged default(s).
3. If the City determines in its discretion, that the parties cannot resolve the alleged default(s) within the good faith negotiation period, then applicable City ordinance provisions addressing the resolution of such default(s) shall govern.
4. Upon finding a default or violation of the terms of any permit, the City shall have the authority to revoke the Permit after notice to the Applicant and after affording the Applicant/Permittee an opportunity to be heard.

Section 157.16. Administration and Enforcement

The City shall enforce the provisions of this section through an inspection of the WECS facility every year. The City and its designated representative(s) is hereby granted the power and authority to enter upon the premises of the WECS at any time by coordinating a reasonable time with the Operator/Owner of the facility. Any person, firm, or corporations who violates, disobeys, omits, neglects, refuses to comply with, or resists enforcement of any of the provisions of this Ordinance shall, upon conviction, be fined not less than twenty five dollars (\$25.00) nor more than five hundred dollars (\$500.00) for each offense per day. Each tower, nacelle, or any component of the WECS may be the subject of a separate violation and further each day that a violation is permitted

to exist shall constitute a separate offense. Other actions may be taken by law or in equity to prevent or to remedy any violation of this chapter and these remedies shall be in addition to any other remedies, damages or penalties.

PRESENTED, PASSED, APPROVED AND ADOPTED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF VILLA GROVE, ILLINOIS, at its regular meeting on the eighth day of February, 2021, by a roll call vote as follows:

Blaney, Thelma I. absent

Hooker, Anthony L. yea

Eversole-Gunter, Cassandra A. yea

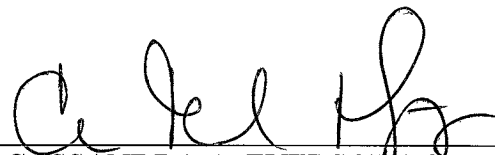
Johnson, Derek S. yea

Garrett, Ryan P. absent

Pangburn, Matthew M. absent

Griffith, Darrel M. yea

APPROVED:



CASSANDRA A. EVERSOLE-GUNTER
Mayor

ATTEST:



MICHELLE L. OSBORNE
City Clerk

SEAL

