ORDINANCE NO. 2011-33
INTRODUCED BY: Mayor Rinker and Council as a Whole

**AN EMERGENCY ORDINANCE
ENACTING CHAPTER 1391
"WIND ENERGY FACILITIES" AND TO AMEND
A PORTION OF CHAPTER 1309 TO INCLUDE
A FEE FOR WIND ENERGY FACILITIES
IN THE VILLAGE**

WHEREAS, Wind Energy is a recognized, renewable and non-polluting energy resource; and

WHEREAS, its conversion to electricity may reduce dependence on non-renewable energy sources; and

WHEREAS, at this time Mayfield Village recognizes the importance of Wind Energy; and

WHEREAS, pursuant to the recommendation of the Ordinance Review Commission, the Village wishes to enact Chapter 1391 in order to provide reasonable conditions, limitations and standard procedures for the construction and operation of Wind Energy Facilities in the Village that will be in the best interest of the public's health, safety and welfare and the Village and its residents.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF MAYFIELD VILLAGE, OHIO, THAT:

SECTION 1. Chapter 1391 "Wind Energy Facilities" of the Codified Ordinances of Mayfield Village is hereby enacted to read as more fully set forth in Exhibit "A" attached hereto and incorporated herein by reference.

SECTION 2. A portion of Section 1309 shall also be amended to add 1309.25 Wind Energy Facilities permit fee as set forth below:

> A permit is required to be obtained for the installation of any Wind Energy Facility at the cost of $200.00.

SECTION 3. All other provisions of the Village's Codified Ordinances not inconsistent herewith shall remain in full force and effect.

SECTION 4. The Clerk of Council is authorized and directed forward a certified copy of this Ordinance to the Codifier of the Village of Mayfield.

SECTION 5. The Council finds and determines that all formal actions of this Council relating to the adoption of this Ordinance have been taken at open meetings of this Council; and that deliberations of this Council and of its committees, resulting in such formal action, took place in meetings open to the public, in compliance with all statutory requirements including the requirements of Section 121.22 of the Ohio Revised Code.

SECTION 6. This Ordinance is hereby declared to be an emergency measure immediately necessary for the health, safety and welfare of the residents of Mayfield Village, Ohio. It shall, therefore, take effect immediately upon the passage by the affirmative vote of not less than five (5) members elected to Council and approval by the Mayor or otherwise at the earliest time allowed by law.

WILLIAM BUCKHOLTZ
Council President

First Reading: August 15, 2011

Second Reading: September 19, 2011

Third Reading: October 17, 2011

PASSED: October 17, 2011

BRUCE G. RINKER, Mayor

APPROVED AS TO FORM:

JOSEPH W. DIEMERT, JR.
DIRECTOR OF LAW

ATTEST: Mary E. Betsa
MARY E. BETSA,
Clerk of Council

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Chapter 1391
Wind Energy Facilities

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1391.01 **PURPOSE.**

Wind energy is a recognized, renewable and nonpolluting energy resource and its conversion to electricity may reduce dependence on nonrenewable energy sources. This Chapter is adopted in order to provide for the construction and operation of wind energy facilities in Mayfield Village subject to reasonable conditions and limitations that will provide the public health, safety and welfare.

1391.02 **DEFINITIONS.**

For the purposes of the Chapter, the following terms shall have the meanings given in this section, without regard to whether such term is capitalized or not.

(a) Applicant. The person or entity filing an application under this Chapter. The terms "person" and "entity" are interchangeable in this Chapter.

(b) Facility Owner. The person or entity having an equity interest in the wind energy facility, including their respective heirs, executors, administrators, successors and assigns.

(c) Hub Height. The distance measured from the surface of the wind energy facility's foundation to the height of the wind turbine hub to which the blades or other spinning device is attached.

(d) Land Owner/Property Owner. The owner of the property the facility is located upon.

(e) Lattice Tower. A tower constructed of vertical metal struts and cross braces forming a square or triangular structure that tapers from the foundation.

(f) Monopole Tower. A tower constructed of a single, self-supporting metal tube, anchored to a foundation.

(g) Non-participating Landowner. Any landowner, except those on whose property all or a portion of a wind energy facility is located pursuant to an agreement with the facility owner or operator.

(h) Occupied Building. A building designed or occupied exclusively for nontransient residential use and permitted accessory uses, including one-family, two-family or multi-family buildings.

(i) Operator. The entity responsible for the day-to-day operation and maintenance of the wind energy facility.

(j) Rotor radius. The distance between the center point of the rotor or blade and the outermost point on the rotor or blade.

(k) Shadow flicker. The on-and-off flickering effect of a shadow caused when the sun passes behind the rotor of a wind turbine.

(l) Turbine Height. The distance measured from the surface of the tower foundation to the highest point of the turbine rotor plane. For roof mounted, applications shall be measured from grade adjacent to the building to the tip of the rotor at its highest point.

(m) Wind Energy Facility. An electric generating facility, whose main purpose is to supply electricity, consisting of one (1) or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

(n) Wind Turbine. A wind energy conversion system that converts wind energy into electricity through the use of a wind turbine generator.

1391.03 **APPLICABILITY.**

(a) Any person or entity who constructs, erects, maintains, extends or removes a Wind Energy Facility in the Village shall comply with the provisions of this Chapter.

(b) Wind energy facilities may only be constructed and operated on property located in Motorist Service (M-S), Office-Laboratory (O-L), or Production-Distribution (P-D). Such Districts are generally located in the Village, North of Highland Road, South of White Road, West of SOM Center Road and East of I-271.

1391.04 **SPECIAL USE REGULATIONS.**

(a) Special Use Permit. All Wind Energy Facilities constructed and operated within the Village shall be by special use permit only.

1391.05 **SPECIAL USE PERMIT.**

(a) A special use permit, issued pursuant to Chapter 1149, shall be required for the construction and operation of any Wind Energy Facility. The Planning Commission shall make recommendation to Council and Council may approve such special use provided the applicant demonstrates compliance with the requirements of the laws of the Village.

(b) Fees. The applicant shall pay a nonrefundable application fee of Two Hundred ($200.00) Dollars to the Planning Commission for an original Wind Energy Facility special use permit or any amendment to an existing Wind Energy Facility special use permit.

(c) Any physical modification to an existing special use permit for a Wind Energy Facility that materially alters the size, type and number of wind turbines or other equipment appurtenant thereto shall require a written amendment to the special use permit approved by the Village.

(d) Submission Requirements.

(1) An application for a special use permit or for an amended special use permit shall be on a form approved by the Building Commissioner and shall contain the following information:

(A.) The name, address, email address and telephone number of the applicant.

(B.) The name, address email address and telephone number of the owner of the property and the zoning district of the subject property.

(C.) A narrative description of the existing use of the property.

(D.) An illustrative picture and narrative describing the proposed Wind Energy Facility, including an overview of the project; the project location; the approximate generating capacity of the Wind Energy Facility; the approximate number, representative types and height or range of heights of wind turbines to be constructed, including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities.

(E.) An affidavit or similar evidence of agreement between the property owner and the facility owner or operator demonstrating that the facility owner or operator has the permission of the property owner to apply for necessary permits for construction and operation of the Wind Energy Facility on the property owner's behalf.

(F.) Identification of the properties on which the proposed Wind Energy Facility will be located and the properties adjacent to where the Wind Energy Facility will be located.

(G.) Documents related to decommissioning including but not limited to a plan as required and established per 1391.12(e).

(H.) Other relevant studies, reports, certifications and approval as may be reasonably requested by the Village to ensure compliance with this Chapter and Code.

(I.) Any documents reasonably deemed necessary by the Building Commissioner or the Village Engineer, including, but not limited to the following:

(1.) A preliminary site plan, prepared by a registered engineer, to scale, showing the location of each of the proposed wind energy facilities and the locations of all existing buildings, structures and property lines along with physical dimension and distances, as well as setback lines, access and turnout locations, substation(s), electrical cabling from the Wind Energy Facility to the substation(s), any ancillary equipment, buildings and structures, including permanent meteorological towers associated with transmission lines, and the layout of all structures within the geographical boundaries of any applicable setback, a lighting plan, and other information the Planning Commission may require.

(2.) At least four (4) elevations of the site ie., north/south/east/west to scale showing the height, design and configuration of the Wind Energy Facility and the height and distance to all existing structures, buildings, electrical lines and property lines. *The elevations showing the proposed Wind Energy Facilities and turbines and all structures and landscaping shown on the required site plan, shall indicate the height, color and material of the tower and all proposed fencing and other structures.*

(3.) Standard drawings and an engineering analysis of the system's tower including weight capacity and wind resistance.

(4.) A standard foundation and anchor design along with soil conditions and specifications for the soil conditions at the site.

(5.) Location of all aboveground and underground utility lines on site or within one radius of the total height of the Wind Energy Facility.

(6.) Specific information on the type, size, rotor material, rated power output, performance, safety and noise characteristics of the system including the name and address of the manufacturer and model number.

(7.) Show the zoning designations of the immediate and adjacent properties and the locations of any buildings or improvements that are within the fall zone of the proposed Wind Energy Facility.

(8.) Evidence that the provider of electrical service of the property has been notified of the intent to install an interconnected electricity generator unless the system will not be connected to the electricity grid.

(9.) A description of emergency and normal shutdown procedures.

(10.) All Wind Energy Facilities shall be required to meet all building and electrical codes.

(11.) Color photographs of the property on which the wind turbine will be located.

(J.) The fee as established.

1391.06 **DESIGN AND INSTALLATION.**

(a) Design Safety Certification. The design of the Wind Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute. The applicant shall submit certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories or other similar certifying organizations.

(b) Controls and Brakes. All wind energy facilities shall be equipped with a redundant braking system. This includes both aerodynamic overspeed 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 overspeed protection. Every Wind Energy Facility shall be equipped with both manual and automatic overspeed controls to limit the rotational speed of the blade below the design limits of the rotor. The application

must include a statement by a registered professional engineer certifying that the rotor and overspeed controls have been designed and fabricated for the proposed use in accordance with good engineering practices. This certification would normally be supplied by the manufacturer and include the distance and trajectory of the thrown blade from an exploding turbine or propeller according to the Loss of Blade Theory.

(c) Electrical Components. All electrical components of the wind energy facility shall conform to relevant and applicable local, state and national codes, and relevant and applicable international standards.

(d) Power Lines. On-site transmission and power lines shall be placed underground.

(e) Height and Setbacks of Ground-Mounted Wind Turbines. A ground-mounted wind turbine shall be set back from all property lines, occupied buildings, street right-of-way lines, and overhead utility lines a minimum distance equal to 1.1 times the height of the wind turbine. Turbine setbacks shall be measured from the center of the wind turbine base. With respect to an overhead utility line that provides service only to a single building or a single parcel of land, the setback requirement shall be met if the turbine is placed so that no portion of a rotor blade extends closer than five (5) feet to the utility line. The height of a ground-mounted wind turbine shall be limited by the setback requirements of this section.

(1) No Wind Energy Facility shall be located in any front yard.

(2) No Wind Energy Facility shall be erected on any parcel that is less than one (1) acre in size.

(3) Access. No tower shall have a climbing apparatus within fifteen (15) feet of the ground and the tower shall be completely enclosed by a locked, protective fence at least six (6) feet high enclosing the entire site of the tower.

(f) Height for Roof Mounted Wind Turbines. All applicable regulations for ground-mounted wind turbines shall apply to roof mounted turbines. The height of a rooftop or other building-mounted wind turbine shall not exceed the maximum permitted building height for the property by more than twenty percent (20%). For a rooftop or other building-mounted wind turbine that exceeds the maximum permitted building height by more than twenty percent (20%), the Village Planning Commission, after a public hearing, may approve a greater height if the Commission determines that the placement of the turbine and context of the turbine site will mitigate any significant negative visual or safety impacts on nearby properties.

1391.07 **LIGHTING, DESIGN AND NOISE.**

(a) Lighting. Wind turbines shall not be illuminated except as required by the Federal Aviation Administration or other applicable authority or by any applicable provisions of the Village's Codified Ordinances including this Chapter.

(b) Aesthetic Design. Wind turbines shall be designed in a manner that makes them as visually unobtrusive as possible, while meeting safety requirements. To this end, towers shall be monopole, or freestanding design without guy wires, rather than lattice design, wherever feasible. With respect to color, wind turbines shall be white, off-white or unpainted metal, unless other colors are required by federal regulations or unless another color is approved by the Village Planning Commission as being more effective or more appropriate in a particular instance.

(c)Signs. No signs shall be located on or around a wind turbine except for necessary warning signs or informational signs located at or near ground level. Such signs may include information of an educational nature or information identifying the manufacturer or installer of the wind turbine but shall not include any off-premise advertising or any advertising for businesses or other activities located on the premises. No more than two (2) permitted signs shall be located on or around each wind turbine. At least one (1) sign shall be posted at the base of the tower warning of electrical shock or high voltage. The total area of such signs shall not exceed twenty (20) square feet. Free-standing signs shall not exceed a height of six (6) feet, and the setback of such signs shall be in accordance with the regulations for the zoning district in which the turbine is located.

(d)Noise. No wind turbine shall produce noise that violates the provisions of Section 509.03 by unreasonably disturbing the quiet, comfort or repose of neighboring inhabitants. Furthermore, no wind turbine shall produce noise that routinely exceeds a level of fifty (50) decibels when measured at the nearest property line of a Residential Zoning District. The applicant for installation of a Wind Energy Facility shall submit a statement by an engineer licensed in the State of Ohio certifying that the proposed Wind Energy Facility will meet this noise standard with respect to impacts on properties in nearby Residential Zoning Districts.

1391.08 **SHADO*W FLICKER.***

(a) *The f*acility owner and operator shall minimize shadow flicker to any occupied building on a Non-Participating Landowner's property.

(b) The Planning Commission and Village C*ouncil may eval*uate noise and shadow flicker when recommending or deciding on applications for special use permits for Wind Energy Facilities.

1391.14 **REMEDIES.**

(a) It shall be unlawful for any person, firm, or corporation to violate or fail to comply with or take any action which is contrary to the terms of this Chapter, or any permit issued under this Chapter, or cause another to violate or fail to comply, or to take any action which is contrary to the terms of this Chapter or any permit issued under this Chapter.

(b) If the Village determines that a violation of this Chapter or the permit has occurred, the Village shall provide written notice to any person, firm, or corporation alleged to be in violation of this Chapter or permit. If the alleged violation does not pose an immediate threat to public health or safety, the Village and the parties shall engage in good faith negotiations to resolve the alleged violation. Such negotiations shall be conducted within thirty (30) days of the notice of violation.

(c) If after thirty (30) days from the date of the notice of violation the Village determines, in its discretion, that the parties have not resolved the alleged violation, the Village may institute civil enforcement proceedings or any other remedy at law to ensure compliance with this Chapter or permit.

(d) Notwithstanding subsections (a) through (c) above, the provisions of Section 1391.08 shall apply.

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