

**NOTICE OF PUBLIC HEARING**  
**Essexville City Council**  
**Proposed Amendments to the Zoning Ordinance**

The Essexville City Council has scheduled a public hearing to consider proposed amendments to the text of the City's zoning ordinance which have been recommended by the Planning Commission. The proposed amendments would establish regulations for the construction and operation of wind energy systems within the City of Essexville.

The purpose of this public hearing is to receive public input and to consider the proposed amendments. The date, time and place of the public hearing when and where the request will be considered are listed below:

7:00 p.m. – Tuesday, January 12, 2010  
Essexville City Hall  
1107 Woodside Avenue  
Essexville, Michigan 48732

Written comments concerning the proposed amendments will be received at the Essexville City Hall at the above address by mail or hand delivery during normal business hours prior to the time and date of the hearing.

Anyone planning to attend the public hearing and who require special assistance as defined by the Americans with Disabilities Act of 1990 should contact the City Clerk's Office at least 72 hours prior to the public hearing.

The complete text of the proposed amendments may be viewed at the City's website located at <http://www.essexville.org> and is available for public inspection at the City Clerk's Office at the above address during regular office hours, 8:00 a.m. to 5:00 p.m. Monday through Friday.

Sarah J. Wilcox, City Clerk  
City of Essexville  
December 27, 2009

**PROPOSED AMENDMENT TO THE ZONING ORDINANCE  
ADD NEW SECTION ON WIND ENERGY SYSTEMS**

The following new section would be added to the Zoning Ordinance:

**Section 15.6 Wind Energy Systems**

Wind energy systems providing alternative sources of electrical power shall be allowed within the City subject to the restrictions and requirements as set forth in this Section and as further required in the City's Code of Ordinances, which may include the obtaining of a City permit prior to the construction of such devices to ensure the compliance with this Section. The failure to comply with the requirements of this Section shall be considered a misdemeanor resulting in the penalties set forth hereafter and a public nuisance requiring removal of such devices as required by law.

A. Conflicts with Other Zoning Ordinance Provisions. Where the provisions of this Section are in conflict with dimensional or other provisions of this zoning Ordinance, the provisions of this Section shall be controlling.

B. Definitions:

Certain words and phrases used in this Section shall have the meanings set forth below. All other words and phrases shall be given their common, ordinary meaning, unless the context clearly requires otherwise.

1. Decibel means the unit of measure used to express the magnitude of sound pressure and sound intensity.
2. FAA means the Federal Aviation Administration.
3. Height means the height of a wind energy system measured from ground level or the point of attachment to a structure to the highest point of its mechanical shadow. (See mechanical shadow below.)
4. Mechanical shadow means the entire envelope that is occupied by the circle swept by the furthest extension of any blade or other exposed moving component of a wind energy system.
5. Occupied means any structure on real property intended, arranged, or designed to be used from time to time by persons living within it, employed within it, or frequently entering it.
6. Owner means the owner or owners of the real property to which a wind energy system is attached as evidenced by the records of the Register of Deeds for Bay County, Michigan.
7. Pedestal means a maximum 12' tall structure that is designed and constructed primarily for the purpose of supporting one wind turbine.
8. Roof-mounted means any part of a wind energy system that is located on the roof of a building, fire or parapet walls; stage lofts, chimneys, smokestacks, water tower, or roof structures for the housing of elevators, stairways, tanks, ventilating fans, or similar equipment required to operate and maintain the building.

9. Shadow flicker means the visible flicker effect when rotating turbine blades cast shadows on the ground and nearby structures causing the repeating pattern of light and shadow.
10. Tower means any structure, including its supports that are ground-mounted, taller than 12', and designed and constructed primarily for the purpose of supporting one or more wind turbines. This includes self-supporting lattice towers or monopole towers.
11. Unoccupied means any structure on real property not intended, arranged, or designed to be used from time to time by persons living within it, employed within it, or frequently entering it.
12. Wind energy system means an electric generating system, consisting of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures & facilities. Such systems are designed for large-scale energy generation, typically for electrical utilities, or to supplement other electricity sources as an accessory use for residential, commercial, waterfront, office, and industrial buildings or facilities, wherein the power generated is used primarily for onsite consumption. All wind energy systems shall be considered personal property and subject to the provisions of the Property Maintenance provisions of the City's Code of Ordinances.
13. Wind Turbine means a wind energy system that converts wind energy into electricity through the use of a wind turbine generator, and may include a nacelle, rotor, tower, blades, and a pad transformer.

C. General Regulations:

All wind energy systems shall conform to the following standards:

1. All structural, electrical and mechanical components of the wind energy system shall conform to all relevant and applicable local, state and national codes, industry standards, and FAA regulations.
2. Prior to the commencement of any construction, a building permit and an electrical permit application shall be submitted containing the information required by the Code of Ordinances of the City. No construction of any wind energy system shall commence or occur prior to the issuance by the City of a building permit and electrical permit. No permit shall be issued if construction of a wind energy system is not designed within the requirements of this Section and applicable portions of the City Code of Ordinances.
3. The building inspector may require that the owner conduct an analysis on the potential shadow flicker at adjacent occupied structures. The analysis shall identify the locations of the shadow flicker that may be caused by the project and the expected durations of the flicker at these locations from sunrise to sunset over the course of a year. The analysis shall identify problem areas where shadow flicker may affect residents and describe measures that shall be taken to eliminate or mitigate the problems.

4. Utility notification: No wind energy system shall be installed until a wind energy system permit is obtained as required by city ordinances, which shall include the evidence required by the wind energy system permit application required by the City Code of Ordinances that the applicant's electrical utility company has been informed of the applicant's intent to install an interconnected customer-owned generator.
5. Workable wind energy systems may not be feasible, practical, or operable in all locations within the City due to lot sizes or obstructions blocking wind on adjoining or nearby properties. Setback requirements and height limitations for wind energy systems set forth in this Section have been created for the purpose of safety and therefore no variance altering their requirements or limitations shall be granted due to the existence of operational impairments or hardships.
6. Construction and Design features of wind energy systems shall be as follows:
  - a. Exterior finishes of wind energy systems shall maintain a neutral, non-reflective exterior color, or a galvanized steel finish, unless the FAA or other applicable governmental authority requires otherwise.
  - b. Wind energy systems shall not be artificially lighted unless otherwise required by the FAA or another authorized governmental agency.
  - c. Wind energy systems may include one small sign, emblem, or decal not larger than 10 inches x 15 inches to identify the name or logo of the manufacturer and/or installer, the make, serial number, and other pertinent information about the wind energy system. Such signs shall not contain advertising copy.
  - d. Minimum clearances of wind energy systems shall be as follows:
    - (1) The minimum distance between the ground and the mechanical shadow shall be 15 feet.
    - (2) The minimum distance between the mechanical shadow and adjacent unoccupied structures shall be 10 feet.
  - e. Provisions for safety to which wind energy systems shall comply are as follows:
    - (1) Towers that are not roof-mounted shall not be climbable from the base of the tower upward for a distance of 15 feet.
    - (2) When roof-mounted wind energy systems can be accessed by the public, such systems shall provide adequate guards and warnings to ensure safety.
    - (3) Wind energy systems shall have automatic braking, governing or a feathering system to prevent uncontrolled rotation or over speeding.
    - (4) All wind energy systems shall be fitted with an outside electrical shut off panel accessible to emergency workers in the event of fire or other hazard so as to allow termination of all electrical current from the energy system to any other location.

- (5) A clearly visible warning sign indicating the voltage present shall be permanently placed at the base of each roof-mounted or tower-mounted wind energy system.
- f. Unsafe or inoperative systems.
  - (1) Any wind energy system found to be unsafe by the building of electrical official shall be repaired to meet all building permit, construction code requirements.
  - (2) If any wind energy system is not used for a period of 12 months or is found to be unsafe by the building official, the owner will be notified by certified mail to make the necessary repairs or to set forth reasons for the operational difficulty and provide a proposed timetable for corrective action. If one is not provided to the satisfaction of the City, the landowner shall remove the wind energy system within 60 days of receipt of the notice to remove.
  - (3) If the wind energy system is not repaired as required by the building official in subsection (1) above or not removed within 60 days due to disuse as required by subsection (2) above, the system may be removed by the procedure required by the City Housing Code as stated in the City Code of Ordinances in Title VI, Chapter 1, Section 6.101 through Section 6.1.04 as now exists or may hereafter be amended.
- g. Signal Interference. Wind energy systems shall not interfere with communication systems such as, but not limited to, radio, telephone, television, satellite, or emergency communication.
- h. Wind energy systems may not encroach into setback requirements for principal uses for the zoning district in which they are to be located.

D. Specific Standards All wind energy systems in all zoning districts shall be constructed to the following standards:

- 1. Wind energy systems may be mounted on towers, pedestals, or roof-mounted subject to building and electrical permit requirements.
- 2. Roof-mounted wind energy systems may be mounted on an occupied structure subject to building and electrical permit requirements.
- 3. Wind energy systems mounted on a tower or a pedestal that is attached to the ground and the side of a structure to assist in its support shall be considered ground mounted tower for all purposes and requirements of this Section inclusive of but not limited to setback requirements and height limitations.
- 4. Wind energy systems shall meet the following setback requirements:
  - a. Wind energy systems, including their mechanical shadow, may not encroach into boundary line setback requirements for uses for the zoning district in which they are to be located; nor shall they be located between the front lot line and the front wall of dwellings.
  - b. Wind energy systems, including their mechanical shadow, shall be set back a distance equal to 110 percent of the system height from all adjacent occupied structures, public rights-of-way, utility lines, or the Saginaw River.

- c. Wind energy systems on towers shall be set back a distance equal to their height from all other allowed wind energy systems within the district in which it is located and from the boundary line setback requirements for the district in which they are located.
    - d. Wind energy systems that are roof-mounted shall be set back a distance equal to their height plus the distance from its point of attachment to a structure to the ground from all adjacent occupied structures, other allowed wind energy systems, and from the boundary line setback requirements for the district in which they are located.
  - 5. Noise. Wind energy systems shall be constructed and operated within the noise limitations and requirements of the City noise control ordinance located at Title IX, Chapter 5 of the City Code of Ordinances or as may be created or amended hereafter and the application and permit requirements of wind energy systems of the City Code of Ordinances that may now exist or may be enacted or amended thereafter.
- E. Wind energy systems meeting the following requirements are a permitted accessory use in R-1 Single-Family Residential, O Office, R-O Residential Office, Residential Office, and P-1 Parking districts and in MU Mixed Use districts south of Woodside Avenue subject to the following standards:
  - 1. Wind energy systems shall meet the following height standards:
    - a. The total height of wind energy systems that are ground mounted towers shall not exceed 60 feet in height from the ground to the highest point of the mechanical shadow.
    - b. Height of wind energy systems that are roof-mounted may not exceed the height of 21 feet from the tallest point of the structure to which it is attached to the highest point of the mechanical shadow.
  - 2. Whether mounted on the ground or a roof, all wind energy systems in residential zoning districts shall not be supported through the use of guy wires or other supporting aid.
  - 3. Wind energy systems in these districts shall be limited to one wind turbine, tower, or pedestal and its associated control or conversion electronics.
  - 4. Rotor diameter is limited to 21 feet.
- F. The following wind energy systems, exceeding 80 feet, are a permitted use after special use approval in B-1 Business, BP-Business Park, M-1 Industrial, M-2 Industrial, and D-1 Developmental Districts and in MU Mixed Use districts north of Woodside Avenue subject to the following standards:
  - 1. The total height of wind energy systems that are ground mounted towers shall not exceed 100 feet in height from the ground to the highest point of the mechanical shadow. However, a wind energy system may be constructed of a height up to 150 feet if a special land use permit is obtained from the City Planning Commission.

2. Height of wind energy systems that are roof-mounted may not exceed the height of 100 feet from the ground so long as the roof upon which it is attached shall have the structural integrity to support it as determined by the building official.
  3. Wind energy systems may consist of one or more wind turbines, towers, or pedestals and associated control or conversion electronics so long as setback requirements required herein are maintained.
  4. Rotor diameter shall be limited to 35 feet.
  5. The owner shall submit a decommissioning plan. The plan shall include the anticipated life of the project, the estimated decommissioning costs, net of salvage value in current dollars, the method of ensuring that funds will be available for decommissioning and restoration and the anticipated manner in which the project will be decommissioned and the site restored.
- G. Penalties. Whosoever violates any of the provisions of this Section, with or without notice by the City of such violation, shall be guilty of a misdemeanor and subject to a penalty of up to five hundred dollars (\$500.00) fine and/or ninety (90) days in jail. A separate violation shall be deemed to have been committed each day during which a violation occurs and continues to occur.

Each violation may also be considered a nuisance in violation of Chapter 1 of Title IX of the City Code of Ordinances, the provisions of which the City may invoke simultaneously with the criminal penalties above. Additionally, the City may seek injunctive or other judicial relief at law generally as it deems appropriate.