

**LONG LAKE TOWNSHIP  
PLANNING COMMISSION**

DECISION

Applicant: Bay Area Transportation Authority

Hearing Date: March 23, 2010

PROPERTY DESCRIPTION

The property of Glen and Ella Noonan, described as:

Parcel ID # 28-08-002-001-00 hereinafter referred to as the "property."

APPLICATION

The Applicant seeks approval of the following: conditional land use and site plan approval for a large wind energy conversion system (WECS).

The Planning Commission having considered the Application, and Exhibits, and the Planning Commission having reached a decision on this matter, states as follows:

GENERAL FINDINGS OF FACT

1. The property is located in the AG Agricultural zoning district.
2. The WECS has a rated capacity of 300kW, making it a Large WECS. A large WECS is regulated as a conditional use in the AG District under the provisions of Zoning Ordinance Section 14.35.
3. Site plan approval is required for any conditional use.

FINDINGS OF FACT UNDER SECTION 14.1.3. OF THE ZONING ORDINANCE

**Standards for Granting Conditional Land Use Approval.** The Planning Commission, before acting on a Conditional Land Use Application, shall employ and be guided by standards which shall be consistent with and promote the intent and purpose of this Zoning Ordinance, and ensure that the land use or activity authorized shall be compatible with adjacent uses of land, the natural environment, and the capacities of public services and facilities affected by the land use. The Planning Commission shall review each application for the purpose of determining that each proposed use meets the following standards and, in addition, shall find adequate evidence that each use at its proposed location will be consistent with the public health, safety, and welfare of the Township and shall comply with the following standards, together with any specific regulations and conditions set forth for such use in this Article:

1. Will be harmonious with and in accordance with the goals, objectives and policies of the Township Master Plan.

- a. The Planning Commission finds that the Long Lake Township Future Land Use map calls for this area to be developed under the Low Density Residential land use classification.
  - b. The Planning Commission finds that the proposed use is consistent with the policies outlined in the Comprehensive Plan including Objective c under Goal 4 related to implementing incentive-based standards to encourage the retention of productive farming.
2. Will be designed, constructed, operated and maintained in harmony with the existing or intended character of the general vicinity and that such a use will not change the essential character of the area in which it is proposed.
- a. The Planning Commission finds that the use as proposed will allow continued use of the property for agricultural production and will be complementary to the existing agricultural use and nearby agricultural and heavy commercial/light industrial uses.
3. Will not be hazardous or disturbing to existing or future uses in the same general vicinity and in the community as a whole.
- a. The Planning Commission finds that the WECS is proposed to be developed to have safety features such as overspeed controls to avoid some potential hazards.
  - b. The Planning Commission further finds the WECS has been designed and sited to meet the noise and shadow impact standards of the ordinance, subject to a "phase 2" noise analysis.
  - c. The Planning Commission further finds that the proposed WECS will not impact television or radio transmissions in the area based on information provided by the applicant.
  - d. The Planning Commission further finds that the facility is not expected to pose a hazard to the community or adjacent properties in regards to potential ice and snow throw based on documentation provided by the applicant.
  - e. The Planning Commission further finds that there is no suspected significant impact on bird or bat communities based on documentation provided by the applicant.
  - f. The Planning Commission further finds that based on the documentation provided by the applicant and subject to subsequent certifications from a qualified engineer, that there are no concerns regarding the fall zone of the unit, ability of the unit to withstand site conditions and expected wind gusts up to 90 miles per hour.
  - g. The Planning Commission finds that the facility will have limited impact on natural features because there are no known wildlife corridors that may be impacted, no woodlands that will be impacted, no wetlands or water features that will be impacted. Views from adjacent residential areas will be limited; and impact on know viewsheds will be limited.
4. Will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, stormwater drainage, refuse disposal, water and

sewage facilities and school or persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for such services.

- a. The Planning Commission finds that the proposed use will require limited public services or facilities; and that the use does not require refuse disposal, water or sewer; and that the use will not directly impact school or any social agencies.
5. Will not create excessive additional requirements at public cost for facilities and services and will not be detrimental to the economic welfare of the community
  - a. The Planning Commission finds that the use will not require excessive public services and will have little impact on the economic welfare of the community.
6. Will not involve uses, activities, processes, materials and equipment or conditions of operation that will be detrimental to any person, property or general welfare by reason of excessive production of traffic, noise, vibration, smoke, fumes, glare or odors.
  - a. The Planning Commission further finds the WECS has been designed and sited to meet the noise and shadow impact standards of the ordinance, subject to a "phase 2" noise analysis.
7. Will ensure that the environment shall be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, and by topographic modifications that result in maximum harmony with adjacent areas.
  - a. The Planning Commission finds that this use as proposed includes limited site disturbance and no direct impact on any natural features identified in the Long Lake Township Natural Features Inventory.

#### FINDINGS OF FACT UNDER SECTION 24.5 OF THE ZONING ORDINANCE

**STANDARDS FOR GRANTING SITE PLAN APPROVAL.** Each Site Plan shall conform to the applicable provisions of this Ordinance and the standards listed below:

1. Arrangement of Structure. Site Plans shall demonstrate that buildings, parking areas, signs, walls, fences, and the like are designed to minimize adverse affects on development users and the occupants of adjacent properties.
  - a. The Planning Commission finds that this standard has been met in that no buildings are proposed. The WECS structures will be in excess of 500 feet from all property lines, the proposed access drive is located to minimize the impact on adjacent properties.
2. Natural Features. Site Plans shall demonstrate that as many natural features as possible have been retained, particularly where such features provide a buffer between adjoining properties or assist in preserving the general appearance of the neighborhood or help control soil erosion or stormwater.
  - a. The Planning Commission finds that this standard has been met, as no existing natural features will be removed or altered under this proposal.
3. Vehicular and Pedestrian Traffic. Site Plans shall fully conform to the driveway and traffic standards of the Michigan Department of Transportation and the Grand Traverse County

Road Commission. Further, the Site Plan shall demonstrate that there is proper relationship between existing and proposed roadways, parking areas, and that the safety and convenience of pedestrian and vehicular traffic has been assured. Manufactured housing communities, multifamily developments, shopping centers and/or office parks are not exempt from providing interior roads for vehicular and pedestrian access to abutting properties.

- a. The Planning Commission finds that the applicant has submitted the site plan to the MDOT for an access road permit.
4. Public Safety. Site Plans shall fully conform to the applicable fire safety and emergency vehicle access requirements of the Grand Traverse County Construction Code.
  - a. The Planning Commission finds that, subject to any requirements of any outside agencies, this standard is met.
5. Drainage. Site Plans shall fully conform to the Grand Traverse County Drain Commission standards.
  - a. The Planning Commission finds that, subject to any requirements of any outside agencies, this standard is met.
6. Erosion. Site Plans shall fully conform to the Grand Traverse County Soil Erosion and Sedimentation Control Ordinance.
  - a. The Planning Commission finds that, subject to any requirements of any outside agencies, this standard is met.
7. Hazardous Waste Management. Site Plans shall demonstrate that reasonable precautions will be taken to prevent hazardous materials from entering the environment.
  - a. The Planning Commission finds that this standard is met because no hazardous waste is associated with this use.
8. Public Health. Site Plans shall fully conform to the requirements of the Michigan Department of Public Health and the Grand Traverse County Health Department.
  - a. The Planning Commission finds that this standard has been met, because there are no components of this facility subject to health department requirements.
9. Statutory Compliance. Site Plans shall fully conform to all applicable state and federal statutes.
  - a. The Planning Commission finds that this standard is met, subject to receipt of copies of permits and reviews by all affected agencies.
10. Conformance with Township Master Plan. Site Plans shall fully conform to the land use policies, goals and objectives of the Long Lake Township Master Plan.

- a. The Planning Commission finds that this use is consistent with the policies for the area as stated in the Long Lake Township Master Plan.

FINDINGS OF FACT UNDER SECTION 14.35 Large Wind Energy Conversion System.

["attachments" refer to the application packet and its attachment]

1. Impact Analysis Required. The Planning Commission finds that the applicant has submitted the following required information:
  - a. Analysis, measurements and projections of large WECS noise propagation conforming to the International Electromechanical Commission (IEC) Standard 61400-11 Part 11; **Attachment D**
  - b. An avian study based on the US Fish and Wildlife Service's "Interim Guidelines To Avoid And Minimize Wildlife Impacts From Wind Turbines"; **Attachment C**
  - c. Written documentation projecting the "shadow flicker" on any existing structures located off the property on which the large WECS will be constructed, and the extent and duration of the shadow flicker on these existing structures; **Attachment A**
  - d. Written description of the potential impact of the proposed large WECS on natural features and view sheds as identified in the Long Lake Township Natural Features Inventory. **Attachment A**
2. Required Information. The Planning Commission finds that the applicant has submitted the following required information:
  - a. Property lines, dimension, acreage, and contours with appropriate intervals for site evaluation. **Attachment B**
  - b. Location and elevation of all components of the proposed large WECS. **Attachment B**
  - c. Location and dimensions of all existing structures and uses on the lot within 300 feet of the systems, **Attachment B**
  - d. Height of any structures or trees over thirty-five (35) feet within a five hundred (500) foot radius on-site or off-site of the proposed large WECS, **Attachment B**
  - e. Surrounding land use and all structures irrespective of height, within five hundred (500) feet of the large WECS location. **Attachment B**
  - f. Location of any overhead utility lines on the parcel; **Attachment B**
  - g. Wind system specifications, including manufacturer and model, rotor diameter, tower height, tower type (freestanding or guyed), and color; **Attachment A & Attachment G**
  - h. Any other information necessary to demonstrate compliance with the standards and requirements of this Section.
3. Additional Required Information. The Planning Commission finds that the applicant has submitted the following required information with generalized information that has been provided, subject to provision of required engineer certifications:
  - a. Standard drawings of the structural components of the large WECS, including structures, tower, base, and footings. A registered engineer shall certify drawings and any necessary calculations that the system complies with all applicable local, state, and federal building, structural and electrical codes, **Attachment G**
  - b. Evidence that the site is feasible for a large WECS, **Attachment J**

- c. Certification from a registered engineer that the rotor and overspeed control have been designed for the proposed use on the proposed site, **Attachment H**
  - d. Registered engineer's certification of the design and safety of the proposed tower to withstand winds of ninety (90) miles per hour, and **Attachment H & G**
  - e. Registered engineer's certification that if the wind turbine were to fall, no building or structure – existing or potential – would be damaged. **Attachment A**
  - f. Information regarding potential interference with television, radio, cellular telephone, or microwave reception in the area, and how the interference will be abated. **Attachment E**
4. Setbacks The Planning Commission finds that all required setbacks are met under the proposal.
5. Dimensions. The Planning Commission finds that all dimensional standards are met under the proposal.
6. General Siting and Design Standards
- a. The Planning Commission finds, subject to a phase 2 noise analysis, that the noise standards of this Section are met.
  - b. The Planning Commission finds that subject to a condition that no visible advertising will be displayed on the unit, that the use will have limited visual impact to the extent possible.
  - c. The Planning Commission finds that the tower will not be lit unless required by an outside agency; the standard of this Section is met if any lighting is conditioned on meeting the standards of this Section.
7. Safety Measures.
- a. The Planning Commission finds that the large WECS shall be equipped with both manual and automatic controls to limit the rotational speed of the rotor blade so it does not exceed the design limits of the rotor.
  - b. The Planning Commission finds that no fencing is proposed for the large WECS installation
  - c. The Planning Commission finds that an appropriate warning signs shall be posted in conformance with the Zoning Ordinance.
  - d. The Planning Commission conditions approval on the WECS being properly grounded to safely sustain natural lightning strikes in conformance with the National Electrical Code.
  - e. The Planning Commission finds that the unit will have appropriate anti-climbing devices.
  - f. The Planning Commission conditions approval on the operator maintaining a current insurance policy which will cover installation and operation of the large WECS.
  - g. The Planning Commission finds that the dealer has provided evidence that the large WECS can be successfully operated in the climatic conditions found in Long Lake Township.

- h. The Planning Commission conditions approval on the large WECS being warranted against any systems failures reasonably expected in severe weather operation conditions as a condition of approval.
8. Radio and Television Interference. The Planning Commission finds that the large WECS is not expected to cause cellular telephone, microwave, radio and television interference for residents in the neighboring area.
9. Removal Required. The Planning Commission finds that the removal standards of the ordinance may be met with the condition that the removal requirements of the ordinance are met in the event that the system is not operational for a continuous period of one year.
10. Primary Use. The Planning Commission finds that this standard is met.
11. Use of Current Technology: Subject to conditions, the Planning Commission finds that this standard is met.
12. Ice and Snow Throw: The Planning Commission finds that the applicant has provided sufficient information to ensure that any ice or snow thrown by the proposed large WECS will not impact surrounding uses or travelways.
13. New Technology. Subject to conditions set by the Planning Commission, the Commission finds that this standard is met.

#### DECISION

Upon motion, seconded and passed, the Planning Commission GRANTS the Applicant's requested conditional land use and site plan approval for placement and operation of a large wind energy conversion system (WECS) on the subject property, subject to the express conditions specified below.

#### CONDITIONS

1. Provision of a finalized site plan sealed and signed by the preparer.
2. Provision of a "phase 2" noise analysis that measures actual ambient noise levels on the site when weather conditions permit, demonstrating that the standards of the ordinance relating to noise have been met, such study to be submitted for administrative review. Further, if necessary, after the installation of the turbine, sound muffling measures are to be taken to lower the noise levels to meet ordinance standards. If the noise standards cannot be met, conditional land use approval shall be withheld.
3. Provision of, for administrative review, certifications from a registered engineer regarding the following:
  - a. The system complies with all applicable local, state, and federal building, structural and electrical codes.
  - b. The rotor and overspeed control have been designed for the proposed use on the proposed site.
  - c. The proposed tower can withstand winds of 90 miles per hour.
  - d. That if the turbine were to fall, no building would be damaged.
4. Any required lighting shall meet the requirements of the ordinance.
5. The WECS shall have no advertising displayed on the tower or turbine, or any component intended to be visible to the general public.

6. The WECS shall be grounded in compliance with the ordinance.
7. The operator must maintain insurance as described in the ordinance.
8. The WECS must be warranted against system failures.
9. The WECS shall be subject to the removal requirements of the ordinance in the event that the system is not operational for a continuous period of one year.
10. Approvals by all affected outside state, local and federal agencies.

TIME PERIOD FOR JUDICIAL REVIEW

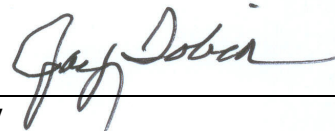
State law provides that a person having an interest affected by the zoning ordinance may appeal a decision of the Planning Commission to the Circuit Court. Pursuant to MCR 7.101 any appeal must be filed within twenty-one (21) days after this Decision and Order is adopted by the Planning Commission.

DATE DECISION AND ORDER ADOPTED

March 23<sup>rd</sup> 2010



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Chairperson



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Secretary

