

Presentation of the Draft *Centerville Township Zoning Ordinance for Commercial Wind Energy Systems* to the Centerville Township Planning Commission

March 6, 2007

By Carolyn Weed, Acting Chairperson

Centerville Township Commercial Wind Ordinance Committee

The Centerville Township Commercial Wind Ordinance Committee, made up of two Planning Commissioners and eight citizens selected by the Planning Commission from a pool of Centerville resident volunteers, has been meeting regularly since May 8, 2006. We have met more than twenty times, and our work product, a draft ordinance, has been developed through a comprehensive and not entirely linear process that can be summarized as follows:

- We reviewed the purpose of zoning, as defined by the Michigan Township Association in accordance with Michigan law, which is to function as a tool to implement a community's master plan, ensure the compatibility of land uses, protect natural resources and protect property values.
(<http://www.michigantownships.org/mta1358947.asp>)
- We reviewed Centerville Township's master plan and zoning ordinance, which provide structure and context for our work.
- We developed the statement of purpose for our ordinance in order to guide our decisions.
- We familiarized ourselves with the nature of commercial wind projects, including components on and off site, and debated impacts as a special use in agriculturally zoned lands as defined in Centerville's ordinance.
- We studied township maps and images showing parcel size, topography, zoning and land use.
- We reviewed, as a group and individually, other commercial wind energy regulations from a wide variety of jurisdictions and sources including:
 - Michigan ordinances (Otsego County, Huron County, Leelanau Township, Bingham Township, White River Township, Elmwood Township, Eveline Township, Montague Township, Chester Township);
 - Michigan Siting Guidelines for Wind Energy Systems;
 - Ordinances from other states (including Shawano County, WI, Oregon, California, New York);
 - Model ordinances (including one developed for Barton, WI);
 - Regulations and standards that exist in other countries with more commercial wind experience;
 - Standards recommended by reference books used by the industry.
- We established a rough outline and a list of topics for further research and discussion including:
 - Noise,
 - Setbacks and density,
 - Administrative and financial matters including:

- Insurance,
 - Funding requirements for administration of the ordinance,
 - Monitoring and enforcement,
 - Removal,
 - Complaints and Conflict resolution,
- Lighting and appearance,
- FAA and other regulatory/code requirements,
- Safety issues,
- Environmental issues,
- Shadow flicker and blade glint,
- Electromagnetic interference,
- Property values,
- Power grid requirements.
- Committee members visited wind farms (Traverse City; Mackinaw City; the Door Peninsula, WI; Mendota, IL; and Blairsburg, IA) and spoke with persons affected including residents, a township supervisor, a real estate agent and business employees.
- We consulted experts and those with experience regulating turbines including:
 - Frank Septer, an engineer from Cherryland Electric, about transmission service requirements for proposed wind project;
 - Daniel Alberts, an engineer from Lawrence Tech who did presentations on noise and wildlife impacts to the Michigan Wind Working Group; (This long interview provided insight into the inadequacy of the state noise standards for Centerville Township and sources for the latest research on migrating bat kills, a serious emerging environmental issue.)
 - Bill Scharf, a respected local ornithologist with bird/tower experience and knowledge about bird habitat and bird migration in Leelanau County;
 - Steve Yancho, Chief of Natural Resources for Sleeping Bear Dunes National Lakeshore;
 - Arlin Monfils, Township Supervisor in Lincoln Township, WI, where 292' (total height to blade tip) turbines went online in 1999;
 - A variety of persons who participated in the Michigan Wind Working Group and/or have participated in developing township and county wind ordinances, including the Otsego County Planner, township planning commissioners and citizens.
- We invited the National Park Service to present NPS and U.S. Fish and Wildlife Service expertise and recommendations with respect to impact on lakeshore and wildlife.
- We prepared and reviewed individual research reports on particular topics together with summaries of applicable regulations developed elsewhere and proposals for Centerville's regulations.
- As we progressed through these reports, we expanded and refined our outline and pasted in the pieces, organizing regulations into three broad

categories: general provisions, performance standards, and application requirements.

- We reviewed and edited multiple drafts, working for clarity and for compatibility with the Township's zoning ordinance, particularly its provisions regulating special use. We tried to avoid inconsistencies or any unnecessary duplication of existing regulations.

Our final document, the *Centerville Township Zoning Ordinance for Commercial Wind Energy Systems*, is presented to the Planning Commission tonight. Two versions of the ordinance are being provided, one version with italicized parenthetical commentary to explain particular aspects of the ordinance and to provide references and sources that were used as models, and one version without the commentary (to show that even with the definitions and the Appendix of Noise Measurement Protocols, it is not as lengthy a document as was rumored). You also are being provided a package of materials to help make our process and work product more transparent and to provide you with some of the background materials developed by committee members.

The basic organization of the document is as follows:

- The first sections of the ordinance are introductory and present the authority for regulation and the purpose of the ordinance in view of the Township's master plan, Michigan zoning law, and the need to define a regulatory/administrative process for commercial wind energy systems as a special use.
- This is followed by definitions of terms used in the ordinance.
- Next is the first regulatory section, entitled "General Provisions," which defines the applicability of the ordinance, limits commercial wind generating capacity to avoid massive transmission infrastructure in the Township, and includes special permitting and enforcement provisions that apply to this special use, along with provisions covering insurance and the cost of administration, removal and road repair.
- The second regulatory section, "Performance and Regulatory Standards," pertains more specifically to the design and operation of a wind energy system with regulations addressing height limit, setbacks and spacing; appearance and lighting; code compliance, safety and maintenance; environmental impacts; noise; shadow flicker and blade glint; ice and blade throw; electromagnetic interference; abandonment, removal and site restoration; construction activities; and complaint resolution.
- The final section specifies application requirements. It is worth noting that these requirements were designed to include materials and documentation demonstrating that the applicant meets or will meet the "Approval Standards" defined under "General Provisions" of the ordinance and that the applicant will follow best practice standards to protect natural resources.

When the committee began its work, Centerville Township had been identified as the site for a proposed 90 MW commercial wind energy complex. The original proposal specified a 1.5 MW turbine with a total height of about 400 feet (40

stories) from the base to the tip of a blade in its highest vertical position. Whether or not this particular proposal comes before the Centerville Township Planning Commission, we believe that the scale of today's commercial wind energy systems requires the township to adopt regulations comprehensive enough to insure that this special land use is permitted in a way that is consistent with the vision and goals of the master plan. We have tried to create an ordinance that gives our township, even with its limited budget and its planning commission made up of dedicated volunteers, the ability to regulate commercial wind energy as a special use and the ability to protect its natural resources and its residents.

Postscript to the Planning Commission:

I would be remiss if I did not mention the difficulties the committee encountered differentiating commercial wind energy systems and private wind energy systems when grappling with the need for regulation. Our assigned task was to develop a commercial wind ordinance, but our research revealed that some regulation of private wind energy systems exists in many jurisdictions. Most committee members feel strongly that, when a private use allows 150-foot towers, and when this use is likely to become more widespread as the price of electricity rises, the Township should enact safety regulations establishing minimum setbacks and noise limits for private wind energy systems.