



DRAFT v5, 11/19/07

Toward the Development of a Model Ordinance Addressing Small Wind Energy Systems for New Jersey Municipalities

The Office of Clean Energy in the Board of Public Utilities has been funded by the US Department of Energy as part of the Wind Powering America Initiative to organize and facilitate a statewide Wind Working Group for New Jersey. The New Jersey Small Wind Working Group was initiated in October 2006 with a well attended organizational meeting that included representatives of New Jersey's small wind industry, environmentalists, residents, and several universities. During the initial meeting, a Strength Weakness Opportunity Threat (SWOT) exercise was conducted which identified local land use barriers and financial issues as the top impediments to more wide spread adoption of small wind energy generation systems in New Jersey.

As a result of this identified need, the Office of Clean Energy has worked with the USDOE and members of the New Jersey Small Wind Working Group toward overcoming local land use barriers. On May 11, 2007, a meeting of the Small Wind Working was convened to discuss the issue and develop a strategy for mitigating the impact of overly restrictive codes and ordinances. The USDOE recommended and funded the facilitation of the meeting by Mick Sagrillo one of foremost experts on the issue of land use restrictions in home rule states and co-author of the NREL report titled, "Zoning for Distributed Wind Power; Breaking Down Barriers". The strategy recommended by the NJSWWG members includes;

- developing a model ordinance specific for New Jersey among a working group of NJSWWG members
- distributing the small wind energy system model ordinance to relevant agencies and organizations for review toward consistency with existing New Jersey state law and policy, such as NJDEP, NJ Audubon, NJ League of Municipalities, NJDCA, etc.
- develop a cover sheet listing all agencies that have reviewed the document and deemed it consistent with NJ law and policy,
- distribute the resulting NJ Small Wind Energy System Model Ordinance to targeted County and municipal officials toward local adoption, and
- make the NJ Small Wind Energy System Model Ordinance with cover sheet available on the NJ SWWG website for small wind installer use as a Conditional Use Permit in overcoming local opposition specific to an application.

The following pages include the 5th version of the draft New Jersey Small Wind Energy System Model Ordinance.

Draft New Jersey Small Wind Energy System Ordinance

Note: This ordinance was funded in part through a grant provided by the USDOE Wind Powering America Program

The following agencies and organizations provided input for the development of the Small Wind Energy System Ordinance:

- New Jersey Board of Public Utilities, Office of Clean Energy
- Rutgers the State University, Center for Advanced Energy Systems
- Rowan University

The following people helped develop and reviewed the Small Wind Energy System Ordinance:

- Michael Winka, Director, Office of Clean Energy, New Jersey Board of Public Utilities
- Peter Mark Jansson, Rowan University
- Michael Muller, Rutgers Center for Advanced Energy Systems
- Jan Harris and Steve Weiss, NJCEP Renewable Energy Market Managers
- Roger Dixon President, Skylands Renewable Energy
- Michael Mercurio, President, Island Wind
- Jim Fry, Resident of Ocean Gate

The Small Wind Energy System Ordinance was developed as a permitted use ordinance, as we were advised that this would be the appropriate ordinance to draft. The ordinance can be simply used as a conditional use permit for a small wind turbine by inserting the following sections into the municipal zoning ordinance:

- 00.05 Standards**
- 00.06 Permit Requirements**
- 00.07 Abandonment**

The draft New Jersey Small Wind Energy System Ordinance is intended to be used as a zoning ordinance. Users of the ordinance for wind energy systems must receive all necessary permits from the NJ Department of Environmental Protection (DEP). Compliance with the ordinance does not constitute compliance with DEP rules for those permits nor does it constitute compliance with the Uniform Construction Code (N.J.A.C. 5:23).

The following model ordinance language could be used by municipalities to edit for their particular circumstance.

WHEREAS, it is the purpose of this ordinance to promote the safe, effective and efficient use of small wind energy systems to reduce the on-site consumption of utility-supplied electricity; and

WHEREAS, the (above mentioned organizations and individuals) find that:

- 1) Wind energy is an abundant, renewable, and nonpolluting energy resource;
- 2) Converting wind to electricity will reduce our dependence on nonrenewable energy resources, and decrease the air and water pollution that results from the use of conventional energy sources;
- 3) Distributed small wind energy systems will also enhance the reliability and power quality of the power grid, reduce peak power demands, and help diversify the State's energy supply portfolio; and
- 4) Small wind energy systems make the electricity supply market more competitive by promoting customer choice; and

WHEREAS, New Jersey's Renewable Portfolio Standards (RPS) require each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey to provide a percentage of their retail electricity sales from renewable energy sources, beginning at 3.5 percent in 2004 and increasing to 22.5 percent by 2021; and

WHEREAS, existing local zoning regulations do not address wind power, which while not intended to discourage the installation of small wind turbines, can substantially increase the time and costs required to obtain necessary local land-use permits; and

WHEREAS, the (insert governing body) of (insert City or Town) find that it is necessary to standardize and streamline the requirements for small wind energy systems so that this clean, renewable energy resource can be utilized in a cost-effective and timely manner in our municipality.

NOW, THEREFORE BE IT RESOLVED, by the (insert governing body) that:

00.01 Title.

This ordinance may be referred to as the Small Wind Energy System Ordinance.

00.02 Authority.

This ordinance is adopted pursuant to (insert City or Town) authority.

00.03 Purpose.

The purpose of this ordinance is to:

- (1) Facilitate the permitting of small wind energy systems.

(2) Preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of a small wind energy system.

00.04 Definitions.

In this ordinance:

(1) “Administrator” means the (County or Town) Land Use Administrator or Planning and Zoning Administrator.

(2) “Board” means the (County or Town) or other Authority Having Jurisdiction.

(3) “Meteorological tower” or “met tower” means a structure designed to support the gathering of wind energy resource data , and includes the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

(4) “Owner” shall mean the individual or entity that intends to own and operate the small wind energy system in accordance with this ordinance.

(5) “Rotor diameter” means the cross sectional dimension of the circle swept by the rotating blades of a wind-powered energy generator.

(6) “Small wind energy system” means a wind energy system, as defined in this section, that

(a) is used to generate electricity;

(b) has a nameplate capacity of 100 kilowatts or less; and

(c) is as high as necessary to capture the wind energy resource at (insert height for residential___ industrial___ commercial ___ or agricultural___) use.

(7)“Total height” means, in relation to a wind energy system, the vertical distance from the ground to the tip of a wind generator blade when the tip is at its highest point.

(8) “Tower” means a monopole, freestanding, or guyed structure that supports a wind generator.

(9) “Wind energy system” means a wind generator and all associated equipment, including any base, blade, foundation, nacelle, rotor, tower, transformer, vane, wire, inverter, batteries or other component necessary to fully utilize the wind generator.

(10) “Wind generator” means equipment that converts energy from the wind into electricity. This term includes the rotor, blades and associated mechanical and electrical conversion components necessary to generate, store and/or transfer energy.

00.05 Standards.

A small wind energy system shall be a permitted use in all zones subject to the following requirements:

(1) **Setbacks.** A wind tower for a small wind energy system shall be set back a distance equal to the town's building set back requirements. No portion of the wind generator shall extend beyond the setback line, nor into the following:

(a) any public road right of way, unless written permission is granted by the government entity with jurisdiction over the road right of way;

(b) any overhead utility lines, unless written permission is granted by the utility that owns and/or controls the lines.

(2) **Access.**

(a) All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.

(b) The tower shall be designed and installed so as not to provide step bolts, a ladder, or other publicly accessible means of climbing the tower, for a minimum height of eight feet above the ground.

(3) **Lighting.** A small wind energy system shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.

(4) **Appearance, Color, and Finish.** The wind generator and the tower shall remain painted or finished in the color or finish that was originally applied by the manufacturer, unless a different color of finish is approved in the zoning approval.

(5) **Signs.** There shall be no signs that are visible from any public road posted on a small wind generator system or any associated building, except for the manufacturer's or installer's identification, appropriate warning signs, or owner identification.

(6) **Utility notification and interconnection.** Small wind energy systems that connect to the electric utility shall comply with the New Jersey's Net Metering and Interconnection Standards for Class I Renewable Energy Systems at N.J.A.C. 14:4-9

(7) **Met towers.** A met tower shall be permitted under the same standards, permit requirements, restoration requirements and permit procedures as a small wind energy system.

00.06 Permit Requirements.

(1) Permit. A zoning permit shall be required for the installation of a small wind energy system.

(2) Documents: The zoning permit application shall be accompanied by a plot plan which includes the following:

(a) Property lines and physical dimensions of the property;

(b) Location, dimensions, and types of existing major structures on the property;

(c) Location of the proposed small wind energy system tower;

(d) The right-of-way of any public road that is contiguous with the property;

(e) Any overhead utility lines;

(f) Small wind energy system specifications, including manufacturer and model, rotor diameter, tower height, tower type (freestanding or guyed);

(3) Fees. The application for a zoning permit for a small wind energy system must be accompanied by the fee required.

(4) Expiration. A permit issued pursuant to this ordinance shall expire if:

(a) The small wind energy system is not installed and functioning within 24-months from the date the permit is issued; or

(b) The small wind energy system is out of service or otherwise unused for a continuous 18-month period.

00.07 Abandonment.

(1) A small wind energy system that is out-of-service for a continuous 18 -month period will be deemed to have been abandoned.

(2) The Administrator may issue a Notice of Abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The notice shall be sent return receipt requested.

(3) The Owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date.

(4) If the owner provides information that demonstrates the small wind energy system has not been abandoned, the Administrator shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn.

(5) If the Administrator determines that the small wind energy system has been abandoned, the Owner of the small wind energy system shall remove the wind generator from the tower at the Owner's sole expense within 6 months after the Owner receives the Notice of Abandonment.

(6) If the owner fails to remove the wind generator from the tower in the time allowed under (5) above, the Administrator may pursue legal action to have the wind generator removed at the Owner's expense.

00.08 Zoning Permit Procedure.

(1) An Owner shall submit an application to the Administrator for a zoning permit for a small wind energy system.

(2) The Administrator shall issue a permit or deny the application within one month as consistent with Municipal Land Use Law of the date on which the application is received.

(3) If the application is approved, the Administrator will return one signed copy of the application with the zoning permit and retain the other copy with the application.

(4) If the application is rejected, the Administrator will notify the applicant in writing and provide a written statement of the reason why the application was rejected. The applicant may appeal the Administrator's decision pursuant to the appropriate appeals authority. The applicant may reapply if the deficiencies specified by the Administrator are resolved.

00.09 Violations.

(1) It is unlawful for any person to construct, install, or operate a small wind energy system that is not in compliance with this ordinance.

(2) Small wind energy systems installed prior to the adoption of this ordinance are exempt from the requirements of this ordinance, except for the provisions at 00.07 regarding abandonment.

00.10 Administration and Enforcement.

(1) This ordinance shall be administered by the Administrator or other official as designated.

(2) The Administrator may enter any property for which a permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met.

(3) The Administrator may issue orders to abate any violation of this ordinance.

(4) The Administrator may issue a citation for any violation of this ordinance.

(5) The Administrator may refer any violation of this ordinance to legal counsel for enforcement.

00.11 Penalties.

(1) Any person who fails to comply with any provision of this ordinance shall be subject to enforcement and penalties as stipulated in chapter and section of the appropriate zoning code.

(2) Nothing in this section shall be construed to prevent the (County or Town) Board from using any other lawful means to enforce this ordinance.

00.12 Severability.

The provisions of this ordinance are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.