

III. AWEA'S RECOMMENDATIONS

Model Zoning Ordinance: Permitted Use Regulation for Small Wind Turbines

Recommended Practices

The American Wind Energy Association offers a Model Zoning Ordinance to help local officials update ordinances governing small wind turbine installations.²⁷ The following template serves as a starting point that can save planning and permitting staff valuable time. However, states often have unique subsidies or other programs designed to encourage on-site electricity generation, and local ordinances need to be fine-tuned to accommodate both existing state laws and local regulations. A list of practices recommended by the authors of this book are on page 29.

SECTION 1 PURPOSE:

It is the purpose of this regulation to promote the safe, effective, and efficient use of small wind energy systems installed to reduce the on-site consumption of utility supplied electricity.

SECTION 2 FINDINGS:

The [city or county] finds that wind energy is an abundant, renewable, and nonpolluting energy resource and that its conversion to electricity will reduce our dependence on non-renewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources. 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. Small wind systems also make the electricity supply market more competitive by promoting customer choice.

The State of _____ has enacted a number of laws and programs to encourage the use of small-scale

renewable energy systems including rebates, net metering, property tax exemptions, tax credits, and solar easements [as appropriate]. However, many existing zoning ordinances contain restrictions which, while not intended to discourage the installation of small wind turbines, can substantially increase the time and costs required to obtain necessary construction permits.

Therefore, we find that it is necessary to standardize and streamline the proper issuance of building permits for small wind energy systems so that this clean, renewable energy resource can be utilized in a cost-effective and timely manner.

SECTION 3 DEFINITIONS:

Small Wind Energy System: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than [100 kW/1 MW] and which is intended primarily to reduce on-site consumption of utility power.

27. Available online at:

www.awea.org/smallwind/documents/modelzo.html

Tower Height: The height above grade of the fixed portion of the tower, excluding the wind turbine itself.

SECTION 4 PERMITTED USE:

Small wind energy systems shall be a permitted use in all zoning classifications where structures of any sort are allowed, subject to certain requirements as set forth below:

4.1 Tower Height: For property sizes between ½ acre and one acre the tower height shall be limited to [80 ft/150 ft]. For property sizes of one acre or more, there is no limitation on tower height, except as imposed by FAA regulations.

4.2 Set-back: No part of the wind system structure, including guy wire anchors, may extend closer than ten (10) feet to the property boundaries of the installation site.

4.3 Noise: For wind speeds in the range of 0-25 mph, small wind turbines shall not cause a sound pressure level in excess of 60 dB(A), or in excess of 5 dB(A) above the background noise, whichever is greater, as measured at the closest neighboring inhabited dwelling. This level, however, may be exceeded during short-term events such as utility outages and severe wind storms.

4.4 Approved Wind Turbines: Small wind turbines must have been approved under the Emerging Renewables Program of the California Energy Commission or any other small wind certification program recognized by the American Wind Energy Association.

4.5 Compliance with Uniform Building Code:

Building permit applications for small wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the Uniform Building Code and certified by a licensed professional engineer shall also be submitted. This analysis is frequently supplied by the manufacturer. Wet stamps shall not be required.

4.6 Compliance with FAA Regulations: Small wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.

4.7 Compliance with National Electric Code:

Building permit applications for small wind energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is frequently supplied by the manufacturer.

4.8 Utility Notification: No small wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

Examples of State Zoning and Easement Laws:

See AWEA's online toolbox for links to California, Minnesota, Montana and Nebraska policies:

www.awea.org/smallwind/toolbox/default.asp

Best Practices for Counties

The following recommendations are based on California counties' experiences with small wind turbine installations since the California Energy Commission's Emerging Renewable Program was put in place in 1998. They are lessons learned through counties' responses to AB 1207 and the experiences of pioneering consumers attempting to install wind generators.

Do's and Don'ts

The Do's:

- Remember that small wind turbines reduce the threat of blackouts in your community, contribute to national security, and reduce dependence on polluting forms of electric generation. Small wind turbines are community assets, not toys or hobbies.
- Make sure that your fee structure isn't discouraging potential wind turbine buyers. Ideally, total permitting costs should not exceed two percent of the original capital cost of a small wind turbine.
- Consider following the example of San Bernardino County by allowing turbine towers to exceed the state's minimum height allowances in rural areas.
- Review design integrity of wind turbine towers, with standard drawings and an engineering analysis showing compliance with national or state building codes and certified by a licensed professional engineer.
- Identify a model project to set a high standard for future applicants and to prepare staff to address misconceptions about small wind turbines.
- When in doubt, refer to the language of AB 1207 regarding height restrictions and other rules.

The Don'ts:

- Don't supersede FAA lighting requirements. Small wind turbine towers are usually below heights regulated by the FAA or state aviation law.
- Don't require all small wind turbine applicants to obtain a conditional use permit. Instead, create a permitted use designation with appropriate requirements and restrictions.
- Don't arbitrarily prohibit wind turbines on all ridgelines. Consider the particular merits of individual sites.
- Don't require that all small wind turbines "blend in with their environments." Require such mitigation only when there is a clear public benefit.
- Don't require consumers to post a bond or performance security for removal of small wind turbines. No such obligation is required for any other type of privately financed infrastructure.
- Don't require fencing unless public safety is an issue of particular concern at a given site, or unless similar fencing is required for other similar types of structures (cell phone or amateur radio towers).