
CITY OF BANNING

Electric Utility



SMALL WIND GENERATION GUIDELINES

SECTION 1: PURPOSE

It is the purpose of these guidelines 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 of Banning 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 may 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. Therefore, we find that it is necessary to standardize and streamline the submittal and approval process for small wind energy systems so that this clean, renewable energy resource can be utilized in a cost-efficient 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 100kW and which is intended primarily to reduce on-site consumption of utility power.

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. Please refer to California Government Code sections 65893 to 65899 for topics not covered in these city guidelines.

4.1 Tower Height: The parcel where the system is located shall be at least one acre in size. Tower heights of not more than 80 feet shall be allowed on parcels between one and five acres. Tower heights of not more than 100 feet shall be allowed on parcels above five acres. All tower heights shall not exceed the applicable limits established by the Federal Aviation Administration. An application shall include evidence that the proposed height of a tower does not exceed the height recommended by the manufacturer or distributor of the system.

4.2 Set-back: No part of the wind system structure, including guy wire anchors, may extend closer than 30 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 decibels, or in excess of 5 decibels 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.

4.5 Approved Inverters: Inverters must be certified by the California Energy Commission for use with small wind turbine installations. They also must comply with UL 1741, which ensures safe operation on an electricity grid during utility outages.

4.6 Compliance with 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 local building codes 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.

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

4.8 Compliance with National Electric Code: Building permit applications for small wind energy systems shall be accompanied by a single-line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electric Code.

A wind turbine electrical generating system used by an eligible customer-generator shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.

Please see C.O.B. Standard Drawing #700-38 for help with preparing a wind generation single-line diagram.

4.9 Utility Notification: The building permit process must be completed before the electric utility can get involved in the approval process. No small wind energy system shall be installed until the City of Banning Electric Utility has been informed of the customer's intent to install an interconnected customer-owned generator. The project size and specifications must be approved by the utility and all required interconnection paperwork must be submitted before construction can begin.