Chapter 17.74
Wind Energy Conversion Systems (WECS)

Sections

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Section 17.74.100 Purpose

Lindon City recognizes the increased demand for alternative energy generating systems and the need/desire for more inexpensive power and self-reliance that wind energy conversion systems (WECS) may provide. The purpose of these supplemental regulations is to protect the community's interest in properly sitting WECS in a manner consistent with sound land use planning, while also allowing property owners to meet their power generating objectives.

Section 17.74.200 General Regulations

1. Pole mounted WECS shall be permitted in all zones upon issuance of a building permit and compliance with all applicable regulations. No more than two (2) WECS shall be permitted per parcel.
2. WECS producing less than five hundred (500) watts of electricity, not exceeding twenty-four (24) volts; not connected to the power grid/source for the property; and with an overall height less than twenty (20) feet (excluding roof mounted WECS), including the blade at its highest point, shall be exempt from this ordinance and does not require a building permit.

Section 17.74.300 Additional Standards

No building permit shall be granted for a WECS unless the City determines that the proposed use meets all of the following criteria and any other applicable requirements. The City reserves the right to inspect any WECS to ensure Ordinance compliance.

1. Building Permit & Inspections
    a. A building permit shall be required for all WECS.
    b. The owner shall submit two (2) complete sets of detailed plans and specifications for the WECS, including a site plan, a electrical design including standard drawings of the wind turbine structure, including the tower, base, and footings, completed by a registered professional engineer licensed to do such work in the state of Utah whose seal shall be affixed to all such drawings and plans.
    c. The owner shall submit all other information as requested by the Building Department and/or Chief Building Official.
    d. Utility Notification: No WECS shall be installed and connected to the power grid until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned turbine. All WECS connected to the utility grid shall meet all applicable codes and standards, including Electrical Service Requirements (ESR's).
    e. All engineering and electrical wiring/connections shall conform to the applicable provisions of the International Building Code and National Electric Code and shall be inspected by the City.
    f. Permanent power source shall be concealed from public view and comply with all applicable provisions of the National Electric Code.
2. Setbacks
    a. The minimum setback distance for all WECS, including building mounted WECS, shall be no less than twenty feet (20') from all property lines, measured from the blade radius tip of

the WECS. The blade radius may not encroach into any setbacks.

b. The minimum setback distance between overhead utility lines, any other WECS, and above-ground generation facilities shall be no less than the height of the wind tower plus the rotor radius.

c. WECS may not be located within the front or street side setback.

3. Height

a. All WECS's are subject to the zone height limit. WECS height is measured to the tip of the rotor blade. However, for every foot that a WECS is set back from the 20' minimum setback, the height of the WECS may increase one additional foot above the zone height limit. Each additional foot of height is earned when the WECS is set back from all property lines by an additional foot (see figure 17.74 A).

i. The maximum height of the WECS shall not exceed fifty-five (55) feet.

b. Roof mounted WECS shall be required to meet existing building regulations and may not exceed fifty-five feet (55') in height (measured from the average building grade to the WECS blade at its highest point (see figure 17.74 B).

c. The minimum distance between the ground or above any outdoor surface intended for human use (such as a balcony or roof garden located directly below the WECS) and any part of the rotor blade system shall be a minimum of twenty (20) feet.

Figure 17.74 A

Pole-Mounted Wind Turbine

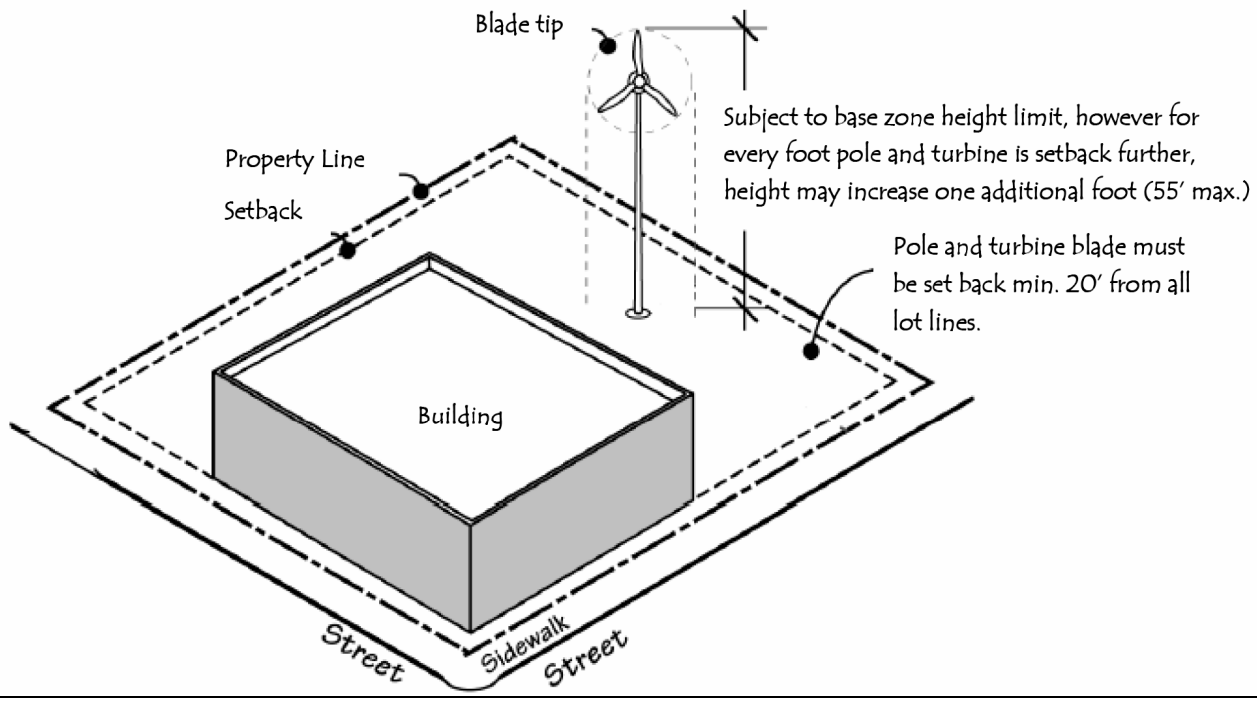
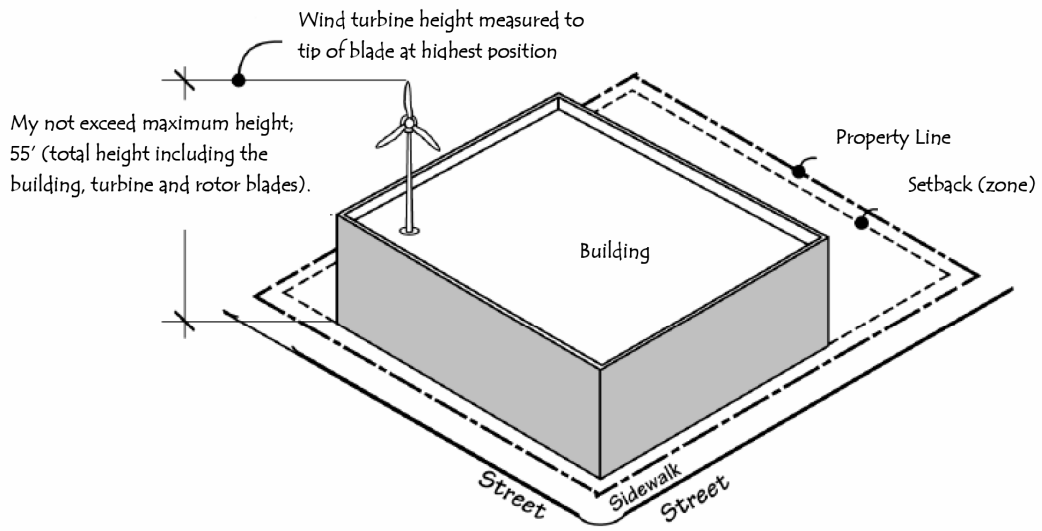


Figure 17.74 B

Building-Mounted Wind Turbine



4. Safety Measures
    a. There shall be sufficient safety measures to prevent the tower from becoming a climbing hazard, such as yard fencing, fencing around structure, or non-climbing pole design.
    b. No WECS shall be permitted that lack an automatic braking, governing, or feathering system to prevent uncontrolled rotation, over speeding, and excessive pressure on the tower structure, rotor blades, and turbine components.
    c. Procedures for emergency shutdown of power generation units shall be established and posted prominently within three (3) feet of the meter panel.
    d. If an alternative energy facility is not functional or operational or maintained for a period of one (1) year, the owner upon notification shall either immediately dismantle the WECS or repair it.
5. Sound
    a. All WECS shall be located with relation to property lines so that the level of the noise produced during any WECS operation shall not exceed sixty (60) decibels, measured at the boundaries of all the closest parcels that are owned by a non-site owner or at any point past the property line.
6. Visual Appearance
    a. A WECS must be non-reflective in color limited to galvanized metal, white or gray, and its design must conform to all applicable industry standards. The appearance of the turbine, tower, and any ancillary facility must be maintained throughout the life of the WECS.
    b. A WECS may not include artificial lighting, except as necessary for reasonable safety and security, including as required by the FAA or other authority.
    c. A WECS may not be used to display any advertising, except for identification as required by turbine manufacturer.