



A Guide for Residential Wind Generators and Towers

Zoning Requirements

Small Wind Energy Conversion Systems (SWECS) are allowed as an Accessory Use in every zoning district except MH (Mobile Home).

Maximum Height (from the base of the tower to the tip of the blade)

For property sizes of less than 1 acre, tower height is limited to the lesser of 80 feet or as limited by setbacks. For Properties over one acre in size, the tower height is limited to the lesser of 120 feet or as limited by setbacks.

Setbacks Required

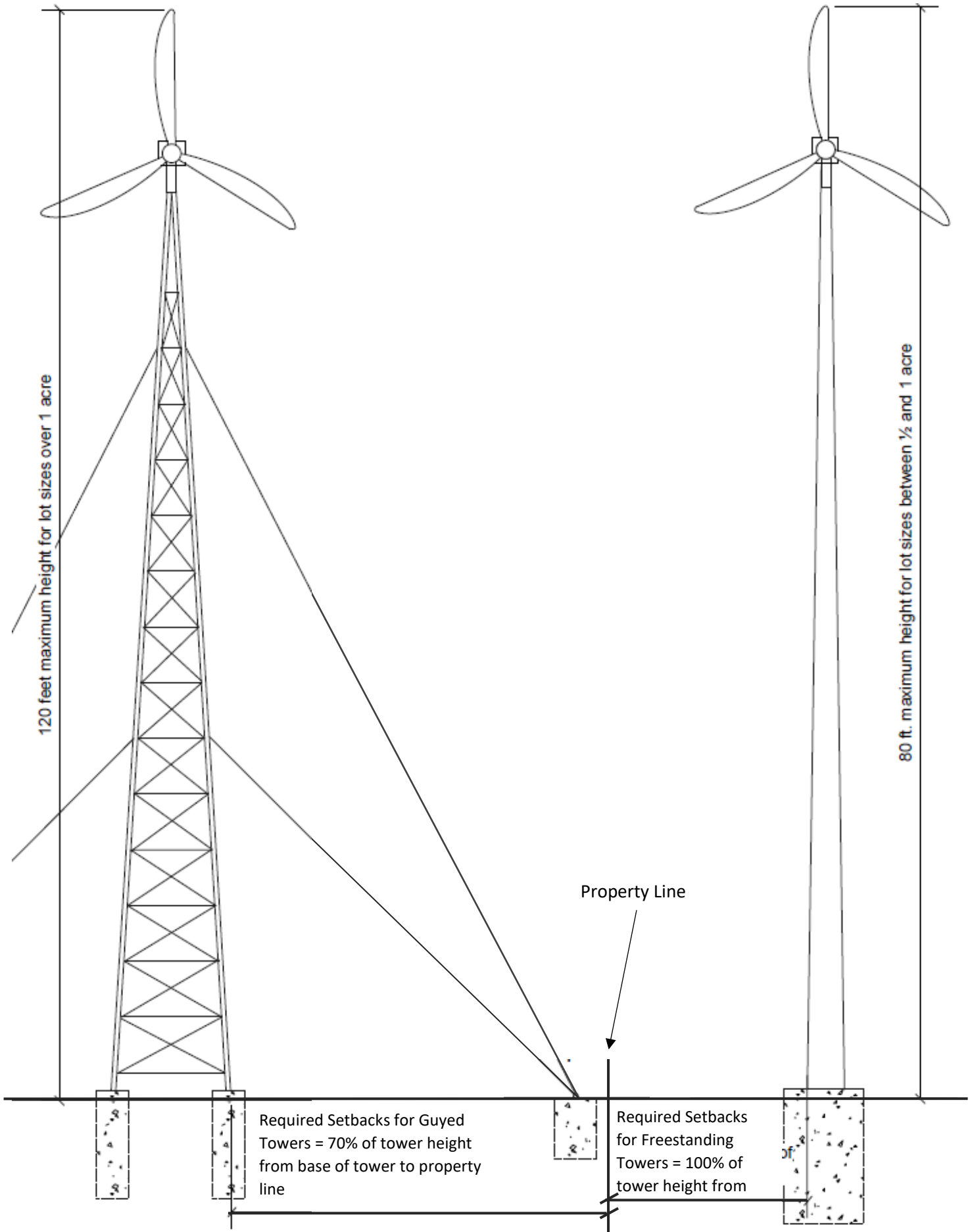
Free standing tower, or towers attached to a building shall be located on the lot so that the distance from the base of the tower to any adjoining property line, public right-of-way, or above ground public utility lines is a minimum of 100% of the tower height.

Guy supported tower shall be located so that the distance from the base of the tower to any adjoining property line, public right-of-way, or above ground public utility lines is a minimum of 70% of the tower height. Guy wire anchors may be located anywhere within the boundaries of the parcel on which the tower is located.

Administrative Exception

An exception may be granted by the zoning administrator from height standard listed above to increase the height and setback by up to 25% of the maximum tower height if both of the following conditions are met:

- The exception is necessary for the bottom of the turbine rotor to clear the highest wind obstacle (i.e. rooftop, mature tree, etc.) by 30 feet measured within a 500 foot radius of the tower.
- The owners and applicants shall record setback easements that conform to the setback standards on the adjacent property, when required setbacks cross property lines, which restrict new development within the easements.



Structural and Electrical Requirements

Compliance with FAA Regulations

Wind turbines must comply with applicable Federal Aviation Administration regulations.

Noise

Wind turbines shall not exceed 60 dBA, as measured at the closest neighboring inhabited dwelling. The level, however, may be exceeded during short term events such as utility outages and severe wind storms.

Utility Notifications

No wind turbine shall be installed until evidence has been given that the utility company has been informed of the customer-owned generators. Off-grid systems shall be exempt from this requirement.

Additional Requirements

For requirements related to lighting, insurance, screening and safety, and structurally unsafe or unused towners, please see Article 7, Sections (4) of the Linn County Unified Development Code or contact the Linn County Department of Planning and Development.

Structural Requirements

A building permit is required for each tower installation. Plans must be submitted with tower permit applications. Construction documents are required to be submitted in pdf format. Plans shall include dimension lines or be drawn to scale. Provide sufficient information for the building official to ascertain the scope of the project. Plans shall also allow for digital signatures and mark-ups. Online submittal is preferred. Plans can be submitted via the [Permit Application Portal](#). In-person submittal is available by appointment, call 892-5130 to schedule. Plans for towers and tower foundations must be designed or reviewed by a registered professional engineer licensed in the State of Iowa and must bear a signed stamp or signature block of said engineer.

Towers shall be designed to meet the requirements of TIA/EIA-222.

Towers shall be designed for wind loading based on icing conditions.

Electrical Connections

Separate electrical permits are required for all electrical work and shall be obtained by the electrician performing the installation.

Electricians shall be licensed under State of Iowa Electrical Licensing laws.