SMALL WIND
FACTSHEETS

Small Wind Systems and Public Safety

Some of the public safety questions asked about small wind turbines concern the structural integrity of the tower, what happens during power outages or icing conditions [cold climates only], and the question of whether the tower represents an "attractive nuisance."

How reliable is the structure?

The U.S. has about 15-MW of nameplate capacity of small wind turbines - over 2,000 installations - with an excellent track record for safety. Following manufacturer specifications for the installation will ensure that the footings are adequate to anchor the structure. A building permit is also required, and the structure must meet local building and safety requirements.

What happens if there is a power outage?

In the event of a power outage, small wind systems connected to the utility grid are designed to detect the outage and automatically shut down, so that there is no danger to anyone trying to repair utility lines. Stand-alone systems are connected only to the home's electrical service, posing no risk to anyone trying to repair utility lines in the event of a power outage.

What about icing?

Unlike tree branches, wind turbine blades are designed to withstand a heavy load of ice. When ice builds up on the blades, they simply don't "fly" any more - they loose their aerodynamic properties. In fact, an ice-covered rotor will turn so slowly (at only several revolutions per minute) that there is no danger of ice being "thrown" off. Typically, the ice melts and falls - straight down - to the base of the tower.

Can people get hurt climbing the tower?

Windmill towers pose no more of an "attractive nuisance" than any other pole or tower in the neighborhood, including water towers, cell phone towers, etc. Some wind turbine tower designs have no available hand- or footholds so they simply can't be climbed. Towers which need to be climbed for repair work can be equipped with devices to prevent falls, and some towers are designed to be lowered so that any maintenance or repair work can be done on the ground.

Do small turbines interfere with electronic devices?

Modern windmill blades are made of wood, fiberglass, or other composite materials which do not interfere with electronic devices.

References

Mick Sagrillo, "*Advice from an Expert*"

Other Fact Sheets Available on Small Wind Energy:

What is Small Wind?
How Much Noise Do Small Wind Turbines Make?
Do Small Turbines Kill Birds?
What About Visual Impact?
How Do Small Wind Systems Affect Property Values?

American Wind Energy Association

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