

WINDLETTER

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THE CASE AGAINST REQUIRED FENCING FOR HOME-SIZED WIND GENERATOR

Anyone wanting to install a wind system typically needs to apply to their local building or zoning department for a permit. Unfortunately, permitting officials frequently require the owner to install a fence around the tower to prevent anyone from climbing it. The rationale behind this requirement is to prevent “someone from climbing the tower and falling off. Fencing the tower off will deter climbing. It’s an attractive nuisance.”

The term "attractive nuisance" refers to the notion that the very existence of the wind turbine will entice someone to climb it, or that they will be harmed by the structure, or that the structure will cause other problems for the neighborhood. In reality, it is not the wind system structure that is a nuisance, but rather the behavior of the offending character. From this perspective, fencing a wind turbine tower is the wrong solution to what amounts to a perceived problem. . . . and only a potential problem at that.

The requirement for building a fence around a wind generator tower is not imposed by a state or utility mandate. It is usually a local zoning concern. Sometimes a fence is suggested or required by the applicant’s insurance carrier to cover potential liability. Their “fear” becomes the system owner’s expense.

I am totally opposed to installing a fence around a home-sized wind system or any other renewable energy installation. Fences around wind generator towers purvey a strong negative connotation about renewable energy, especially wind turbines. To me, there is something intrinsically wrong with the concept of "fencing off" such a benign form of electrical generation. In addition, a fence around the tower can be a considerable expense compared to the entire wind system installation, especially when there are other, more effective, ways to stymie would-be climbers.

It is well known that a fence really does not dissuade a determined person from any activity that he or she has in mind. Just ask a kid! Anyone who has decided to trespass and climb a 120-foot tower is not going to be undermined by something as inconsequential as a six-foot fence.

In fact, a case can be made that the fence itself is an “attractive nuisance,” probably more so than a tower, considering all the other tower-like structures that are also not climbed by trespassers. These structures include things like grain elevators, silos, chimneys, water towers, and cell phone and communications towers. Some local communities and parks host scenery

lofts or platforms on towers, with no ill effect. If a zoning ordinance requires fencing for a wind turbine tower but not for comparable structures like these, a good argument can be made that this is unreasonable discrimination. Such "arbitrary and capricious" zoning requirements and laws have been repeatedly overturned on appeals. The zoning authority carries the burden of proof to validate the need for a fence (rather than the turbine owner having to disprove it).

Due to the "fall zone" setback restrictions placed on most wind systems, the wind generator tower is likely to be located at least its total height, including the turbine blade length, away from any property line, right of way, or road. A case can be made that any would-be climber would have to seriously trespass your yard just to get to the base of your tower.

There are more reliable ways besides fences to deter someone from climbing a wind turbine tower. For a freestanding tower, you merely need to remove the climbing foot pegs or lower rungs that are attached to the tower legs. While removing the lower 10-12 feet of these rungs will not necessarily prevent someone from climbing the tower, it will certainly make climbing more difficult. This is the successful technique that utilities have employed on their power line towers for decades.

In systems with guyed towers, the tower itself is climbed by service personnel, and anti-climb restraints can be utilized to deter others from climbing. These consist of a sheet of metal or wood fastened to the bottom tower section, rendering the tower virtually unclimbable.

Compared to a fence, which is climbable, either of these precautions is more effective for deterring unwanted climbing of a wind generator tower. They are both commonly used by the tower industry.

The addition of a "Danger-High Voltage" or "Caution-Electrical Shock Hazard" sign to all sides of the tower is also a significant deterrent to people. There are literally thousands of freestanding utility high-line towers scattered across rural Wisconsin. Not one is policed, nor are any fenced. However, they are all posted with "Danger-High Voltage" signs. Utilities learned decades ago that the threat of electricity is a more powerful deterrent than expensive fences or "No Trespassing" signs.

There are also a number of strong arguments against the requirement to fence off a wind generator tower based on safety concerns. Most home-sized wind systems have either a disconnect switch at the base of the tower or a winch and cable for manually shutting the turbine down. A fence gate that has not been diligently kept clear of grass and weeds can become a problem for anyone trying to access the base of the tower in an emergency situation. Safety problems can be even worse if there is a requirement that the gate be locked. By contract, your utility requires access to the turbine electrical disconnect and mechanical shut-down mechanism, which is almost always located at the base of the wind generator tower. The utility will want to shut your wind system down and lock it off of the grid in the event of a power outage or whenever routine work is to be done on the neighborhood power lines. Locked gates and fences prohibit their access, especially if you are not available during the power outage or routine maintenance. One wind system owner successfully challenged fences and locked gates by calling them "a safety hazard during an emergency. What happens when the brake should be

pulled on the generator but can't be because the gate is locked and nobody is home? Or the key can't be found?"

Finally, there has never been even one documented incidence of any unauthorized person climbing the tower of a home-sized wind system in the 29-year history of these systems in Wisconsin. Unauthorized climbing is just not a problem. This makes fencing requirements an unnecessary financial hardship for turbine owners, a problem for people trying to perform emergency shutdown procedures, an aesthetic nuisance, and a powerful, negative myth-maker about renewable energy.

On a personal level, I must confess to climbing, along with my cronies, many a fruit tree in our neighborhood when I was young. We were after the delicious pears, apples, plums, or cherries, forbidden to anyone who did not trespass to get at the treasures. After we were caught, one of us usually tossed at least one pear, apple, plum, or cherry in the direction of the person giving us a tongue-lashing while we all scurried away. When apple trees are fenced off as attractive nuisances, I'll consider whether wind generator towers should receive the same treatment.

-- Mick Sagrillo, Sagrillo Power & Light