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SMALL TURBINE COLUMN:

Zoning 5-Barriers To Small Wind Systems

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Zoning has turned out to be a major impediment to the installation of small wind systems, one of a handful of serious barriers to small wind consistently identified by installers. This situation has worsened over the past decade as more people with either romantic notions of the country or the not-in-my-backyard crowd move to the countryside. Depending primarily on the community's view of aesthetics, neighbors may support or vehemently oppose a proposed wind system.

The permitting of any given project, be it a house addition, garage, storage building, gazebo, or wind turbine, generally includes issues of public health, public safety, and general welfare. This last category, general welfare, is the catch-all that often ends up being the death knell for a residential wind system. People have opposed wind installations for any manner of reasons, many unfounded and outright ridiculous. People have opposed residential wind turbines for reasons that include such things as:

- Aesthetics,
- Reduced property values,
- Insufficient payback or economics of the wind system, and
- Harm to wildlife, particularly birds and bats.

Most of the objections raised are quite subjective in nature, and as such can not be easily refuted by the applicant, even with an unlimited budget. In the U.S., we pride ourselves in having a judicial system where you are considered innocent until proven guilty. The irony of zoning in the U.S. is that the applicant is nearly always "presumed guilty," and needs to prove that they will not "harm" their neighbors. Right or wrong, the "harm" is often left to the objecting neighbor to define. In such a situation, anyone can object to a proposed wind turbine for virtually any reason, and unless the applicant has the financial wherewithal to disprove the objection with irrefutable evidence, the project does not go forward.

This situation has turned out to be a quagmire for many small turbine dealers and installers. Both the applicant and the dealer end up spending considerable time and resources researching and attempting to refute any unfounded accusations made by an opposing neighbor. Often the homeowner or dealer simply gives up in frustration, handing the NIMBY (Not-In-My-Back-Yard) objectors another "success story."

In some cases, wind opponents have seized control of the zoning process and put into place all manner of requirements for a small wind system, based on similar requirements for utility-scale wind farms. An applicant for a residential wind system may need to supply numerous documents that are not ordinarily required of other home improvements of similar costs. I have seen ordinances that have included such requirements for small wind systems as:

- a soil survey of the entire area
- site soil tests
- tower engineering
- tower foundation engineering

- structural certification for the tower
- bird studies, and bat studies
- noise studies
- ice "throw" engineering and calculations
- blade throw calculations
- telecommunication interference testing
- an environmental impact study
- average wind speed monitoring
- power output reporting and economic viability analysis
- agricultural impact statement
- architectural projections of what the turbine will look like on the property
- documentation of nearby sensitive environmental areas
- wind access agreements with neighbors
- an abandonment plan
- determination of the area affected by shadow flicker
- stray voltage testing
- HAZMAT (hazardous material) reports
- well testing
- electrical wiring insulation testing
- site reclamation plan
- bonding

It should be fairly obvious that neither a homeowner nor an installer can accommodate such a list. It should also be obvious that a homeowner interested in permitting a house addition, garage, or garden gazebo would never be required to supply such information. The only conclusion that can be drawn is that such requirements were not put in place for any reason other than to dissuade the installation of residential wind systems in the community.

In the next column, we'll look at some ways to counter proposed or existing zoning specifically designed to exclude small wind systems.

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[Editors Note: The opinions expressed in this column are those of the author and may not reflect those of AWEA staff or board.]