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SMALL TURBINE COLUMN:

Protecting Your Right to Install a Wind System

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Anyone who has tried to get a building permit to install a residential wind system knows what a hassle this ordeal can be given the wrong chemistry of neighbors with a NIMBY (not-in-my-back-yard) mentality, unsubstantiated rumor about wind energy from anti-wind-farm Web sites, or a jittery zoning committee who has never seen a residential wind system. Fortunately, there is something that you can do

In Wisconsin, where I live, we have a state statute that limits a zoning authority's ability to put undue requirements and burdens on anyone seeking a building permit for a wind or solar energy system. While many states have solar access laws, my understanding is that Wisconsin, with State Statute 66.0401, is nearly unique in the country in protecting wind systems as well. It was written and adopted into law, in large part, due to grassroots environmental and renewable energy activists participating in the law-making process.

The relevant Wisconsin State Statute is titled "Regulation relating to solar and wind energy systems." Section 1 simply states:

> (1) Authority to restrict systems limited. No county, city, town or village may place any restriction, either directly or in effect, on the installation or use of a solar energy system (as defined in s.13.48(2)(h)1.g.), or a wind energy system (as defined in s.66.0415 (1)(m)), unless the restriction satisfies one of the following conditions:
>
> (a) Serves to preserve or protect public health or safety.
>
> (b) Does not significantly increase the cost of the system or significantly decrease its efficiency.
>
> (c) Allows for an alternative system of comparable cost and efficiency.

The bracketed statutes refer to the legal definitions of these systems. "s.66.0415 (1)(m)" states that "'Wind energy systems' means equipment that converts and then stores or transfers energy from the wind into usable forms of energy." While all of this seems like very simple language, some background information would help.

Zoning ordinances are usually drafted to protect public health, safety, and general welfare. While public health and safety considerations are included in the Wisconsin statute, general welfare was specifically excluded. It should be fairly obvious what a public health or safety issue is, but this may not necessarily be so with general welfare. In practice, "general welfare" can include just about anything imaginable that a neighbor could claim, including that it would decrease property values, impede orderly development of the area, wouldn't fit in the neighborhood based on aesthetics. The neighbor could simply, claim, "I don't want to look at it."

In the U.S., we like to pride ourselves in having a judicial system where you are presumed innocent until proven guilty. Not so with zoning. The interesting thing about zoning in the U.S. is that anyone can stop a building project for virtually any reason if they simply show up to the zoning hearing for that project and complain. The applicant is subsequently saddled with proving that his or her project will not harm the person objecting.

An explanation of the conditions laid out in s.66.0401 will help you understand how this statute works. A restriction may be placed on a wind system if it "serves to protect public health or safety." An example might be standard setbacks from property lines, road right-of-ways, or overhead utility lines, just as most zoning ordinances specify with any other type of building project.

Section (b) states that the restriction cannot "significantly increase the cost of the system, or decrease its efficiency." An analogy might help explain this condition. Let's say that a farmer wants to build an 80' silo, but the neighbors complain that they don't want to see it from their yards. The solution offered to the farmer might be to construct four 20' silos instead, which will hold as much as the 80' silo. However, four 20' silos will be more expensive to construct that the 80' silo. Because such a suggestion would increase the system's cost to the wind applicant, it cannot be considered.

In addition, a wind turbine's output is directly proportional to the cube of the wind speed. As you move above the earth's surface, wind speed, and subsequently energy output of the turbine, increases significantly. In many areas, a wind turbine on a 120' tower will produce twice the energy as two turbines on two 60' towers. So restricting tower height and requiring multiple turbines is a double whammy for wind: it both increases costs and it significantly decreases efficiency, and therefore would not be allowed under the statute.

The final section stipulates that any restriction must "allow for an alternative system of comparable cost and efficiency." This does not mean that the option of installing photovoltaic (PV) panels on the applicant's roof, or simply purchasing electricity from the local utility, is a legitimate suggestion by the zoning authority. The applicant is not requesting a building permit for a PV system, or asking for permission to buy utility-generated electricity. The applicant is seeking to install a wind system, so any alternative system must address a wind system. This section is interpreted as allowing the zoning committee to move the wind turbine from one site on the applicant's property, say from right next to a neighbor's house, to another place one the property, farther away from the affected house.

The footnote to 66.0401 states: "This section is a legislative restriction on the ability of municipalities to regulate solar and wind energy systems. The statute is not superceded by…municipal zoning or conditional use powers. A municipality's consideration of an application for a conditional use permit for a system under this section must be in light of the restrictions placed on local regulation by this section." This means that the burden of proof that a wind system indeed poses a public health or safety problem is on the municipality, and not on the applicant to disprove. This reverse in responsibility is a significant departure in the way that most zoning permits or other construction projects are dealt with.

Nevada recently passed a law that is very similar to Wisconsin's in terms of protecting the rights of those who wish to install wind or solar systems. The Nevada Wind Working Group was involved in the drafting and passage of the law.

Similarly, ordinances, statutes, and laws on any manner of environmental energy issues have been championed by state interest groups, and even individuals. Earlier this year, Mike Nelson, a university extension educator in Washington State, saw the fruition of three years of hard work on a renewable-friendly piece of legislation. Mike worked with both houses of the Washington legislature to draft and

finally pass the first wind and PV energy "feed-in law" in the U.S. First popularized in Germany, a "feed-in law" essentially pays owners of wind or PV systems a premium for the environmentally benign excess electricity they generate and put onto the utility grid. Mike was even on hand to see the governor sign the bill into law.

The upshot of this is that we all need to take charge of policy issues that we are passionate about or affect us. If you are having problems with the local zoning committee giving you a hard time about permitting your wind system, don't complain. Do something to change the situation!

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