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SMALL TURBINE COLUMN:

The Issue of “Payback” at Zoning Hearings

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Over the years, I thought I had heard all the potential objections to residential wind systems until I witnessed one wind opponent suggest that the community should deny the applicant his permit because of the long “payback” period of the proposed wind system. The shocked applicant stammered, the zoning committee balked, and the permit was denied. The wind opponent smiled as he exited the meeting, having succeeded in blocking the wind installation, which he didn’t want to look at.

The sad part of the event described above is that it has not happened just once, but dozens of times around the country.

Zoning committees are empowered to make decisions based on the zoning ordinances they have in place at the time of the building permit request in their respective communities. These ordinances typically revolve around the areas of public health, safety, and the general welfare of the community. I have never seen “payback” listed as a criterion in a building permit application. But I have seen permits for renewable energy systems denied based on specious arguments about long payback periods.

“Payback” for a renewable energy system is generally defined as the amount of time it takes for that system to pay for itself in energy savings. The payback period for a wind system can range from several years to several decades, depending on the cost of the system and the average annual wind speed at the hub height of the wind turbine. Since the output of a wind turbine is directly proportional to the cube of the wind speed, the average wind speed of the site is actually more critical to the payback period of a wind system than is the initial installed cost.

If the only reason to install a residential wind system were to make money, only folks in very windy areas would put them up. However, people install wind systems for other equally valid reasons. I know people who have stated that their system is for their children’s and grandchildren’s future, or for a cleaner environment. There are people who put their dollars where their values are in terms of not wanting to consume fossil fuel or nuclear-generated electricity. There are folks who just want to support the technology. All of those reasons are more in the community’s interest than whether or not the owner will make money on it.

In the arena of zoning decisions, the motives of the applicant should not be on the table. What would happen if communities began licensing only vehicles like the Toyota Prius or Honda Insight that get 50-plus miles per gallon, while refusing to license huge gas-guzzling SUVs? After all, they do have a better payback. Or what would happen if a zoning committee questioned anyone interested in installing a swimming pool, which actually increases the liability insurance coverage required for the residence while bringing little if anything in the way of resale value? Imagine the reaction to any zoning committee that ruled out keeping a boat on one’s property because boats have poor returns on investment (unless one is in the business of shuttling people around). Or consider the payback of a flagpole. Would any community tolerate that type of meddling in the personal choices people make with their hard-earned income and home?

Interestingly, pools, boats, and SUVs depreciate considerably in value from the time they are purchased, while wind systems not only maintain their value, they actually make money for the owner. These savings include the cost of electricity as well as the taxes one would have paid on it. And, wind-generated electricity with a residential wind turbine is inflation resistant, since, as electricity prices increase (as they inevitably do) the value of the electricity generated increases as well. Therefore, the case can be made that wind systems actually increase in value with time, something that cannot be claimed for boats or SUVs, for example.

Regardless of the above arguments, the bottom line is that zoning committees should not be examining the payback of a renewable energy system. It is completely irrelevant when reviewing a building permit request for a residential wind system.

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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.]