



S.U.R. ENERGY SYSTEMS, L.C.
Suburban Urban Rural

Design, Sales, and Installation of Renewable
Energy Products

Reply Comments for case U-12915

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Dear Tom:

Thank you to you and Tanya for all the hard work on the report.

Having read over the comments I wanted to send a reply along. I think it is wonderful that myself, as well as those who oppose certain types of renewable energy, have an opportunity to be heard.

NIMBY- Because the term is offensive to those opposed to wind installations I will refrain from its use. I thought many of the letters from those opposed to wind generator installations were well thought out. I think a more detailed requirement for set back would be helpful. As an installer of residential size wind turbines the rule of thumb generally used is you don't install them within one and a half times their overall height of any buildings, power lines, etc. The single height setback is useful if we are talking about the boundaries between two empty farm fields with nothing but grazing cattle or growing corn. I think the set back should be greater if the land in the vicinity of the property line has been developed.

There is a good, and I thought fairly objective presentation of many public acceptance polls found at the Danish Wind Energy Association web site (<http://www.windpower.org/en/articles/surveys.htm>). Most of the studies show that people surveyed generally support wind energy. When polled about installing a utility scale wind generator near their community that level of support drops dramatically. The interesting thing is that when they poll people after an installation has occurred the disparity goes away and the acceptance is back near pre-installation levels. It seems that fear of the unknown plays an important roll. This is probably exacerbated in Michigan as there is so little

exposure to wind generators.

Sound- Last year I had the pleasure of touring a large wind farm out west. There where 499 Vestas wind turbines installed over fifty miles of pastures. When walking directly below one of the turbines the blade could be heard as it went past. When walking between the turbines, which are within a turbine's width of one another, I couldn't hear either turbine. I could only hear the next turbine as I approached its span. These are modern turbines unlike those manufactured back in the eighties, which are much noisier. I thought another interesting quote from the web site was "The Danish survey showed, that those in favour of renewables and wind power in general are more positive about local turbines, they find them less noisy and less intrusive to the landscape (Gipe, 1995)." Because of the liquidity and inconsistency of human perception I think it is insightful for the commission to choose some objective level of sound measurement at the property line.

Wind Resource- It was stated several times in the responses that the wind resource in Michigan is inadequate for wind generators. There is a distinction I would like to point out and that is the resource requirement to make residential size wind turbines worthwhile is much lower than it is for utility scale turbines. AWEA and DOE which were quoted several times as saying class five is required also state that class 2 and above are appropriate for residential size systems. We therefore are back to square one with the need for guidance throughout the state and wind resource should not be used to indicate there is no need for this discussion. People that feel a strong sense of independence and want to generate their own power on site should be allowed to do so.

It also seems contradictory to me to refer to wind developers as these money hungry manipulators and at the same time point out the lack of a high enough wind class to make a generator worthwhile. Generators are much more profitable and productive in higher velocity winds. If a developer wants to invest their money in Michigan even though the resource is better somewhere else then why not let them as long as the installation is otherwise appropriate?

Local Jurisdiction- I am not a member of the wind working group and I don't know all of the politics behind the local versus state jurisdiction. But I can tell you that when you go to apply for a building or electrical permit to install a wind generator many municipalities are not sure what to do with it and they are out of their comfort zone. The need for guidance from a source they can trust is definitely needed. I would hope that state level recommendations would not only provide opportunities for appropriate and effective wind installations, but also protect the people around the installation. As far as it being a "default permitting ordinance" where municipalities don't have one this is not an issue. Almost all municipalities have ordinances against structures higher than 35 feet, which have been on the books since the time that water from fire hoses could only reach that far.

Avian issues- I would hope that no one in the wind industry has forgotten the problems some wind generators have caused for migratory avian populations. I would hope that for utility scale turbines appropriate siting of the turbines and not placing them along migratory lines would be advised in Michigan. Other things can be done to minimize avian deaths also. Monopole towers prevent nesting in the towers, as was the primary problem at certain wind installations in the past. Also eliminating nacelle mounted lights that attract nocturnal

migratory birds towards the generator. While this is an issue, it needs to be kept in perspective. It was estimated that in the United States at the end of 2001 there were 15,000 commercial wind turbines. In that year estimates of avian death ranged from 10,000 to 40,000 bird fatalities due to these turbines. While that may sound like a lot, it should be noted that Banks cause 3.5 million avian deaths per year. That's right I said "banks". If you include other buildings the number goes to 100 million on the low estimate. Other offenders include communication towers from 4 million to 50 million, 60 to 80 million due to automobiles, and 130 million for high-tension lines (low estimate). My neighbors cat has a much higher kill ratio than a typical utility scale wind turbine. Of the people I know with residential scale wind turbines they have never found a bird in the yard by their turbines.

The avian issue should be considered when drafting recommendations for turbine installations, particularly with endangered species and special habitat. But even the folks at the Audubon Society endorse the use of wind power. Apparently they feel the birds need clean air too.

Sincerely,

John Wakeman
General Manager/Owner