

US-FWS's Proposed Wind Guidelines Could Destroy the Distributed Wind Industry

The Problem:

US-FWS's proposed guidelines for land-based wind energy systems make no real distinction between a 100 MW windfarm and a 2.5 kW residential wind turbine even though the available science points unambiguously to little or no risk to wildlife from small projects. Cats

and windows pose far greater risks. Compliance costs, at up to \$500,000+ will make small projects unaffordable. In areas where the FWS "voluntary" guidelines are adhered to there will be few if any distributed wind systems. The draft guidelines have already stopped school and farm projects.



This lack of distinction is unjust:

- Small wind turbines are 1/6th the height and sweep 1/500 of the rotor area of a typical windfarm turbine.
- Most distributed wind projects consist of one wind turbine and they almost never involve more than three turbines.
- Distributed wind systems typically serve on-site customer load, so they are always installed in the immediate vicinity of buildings on developed land.
- Per the attached list, the available studies, observations, and opinions have concluded virtually no impact or risk at all.
- Small and distributed wind systems are installed at National Wildlife Refuges, National Parks, State Parks, and Audubon Preserves, where they have been monitored for decades.



10 kW Turbine at the ranger station of the Eastern Neck National Wildlife Refuge in Maryland

- Cats and windows pose far greater risks to birds than distributed wind systems.
- The US-FWS guidelines are not voluntary if the regional US-FWS or the local permitting agency decides they must be followed. This has already happened.
- A residential wind turbine costs \$15 – 75,000. The cost of compliance with the guidelines can be \$500,000 or more. A cost breakdown is provided at the end of this document.
- Limiting the scope on the smallest projects to Tiers 1 & 2 would require a report from a wildlife biologist, take 3 – 9 months, and add \$11 – 167,000 to the costs. On a typical 2 acre residential site the zoning setbacks give less than 50 ft of siting leeway, so the biologist’s report would be meaningless as far as reducing wildlife impacts.

Recommended Remedy:

Although we have no doubt that the US-FWS has the best of intentions, the current Guidelines as they apply to smaller-scale projects are ill-advised, lacking in scientific support, and spell economic peril to the distributed wind industry.

DWEA maintains that applying the guidelines to smaller projects is unnecessary, obtrusive and that thousands of American jobs will be lost if they are applied, even partially. **DWEA recommends that US-FWS should limit the scope of its proposed Guidelines to exclude projects with an installed capacity of 1 MW or less installed within 500m of a building.**

For further information, please contact Lloyd Ritter, DWEA Washington Representative, at (202) 215-5512 or Lloyd@lritter.com



Referenced Quotes:

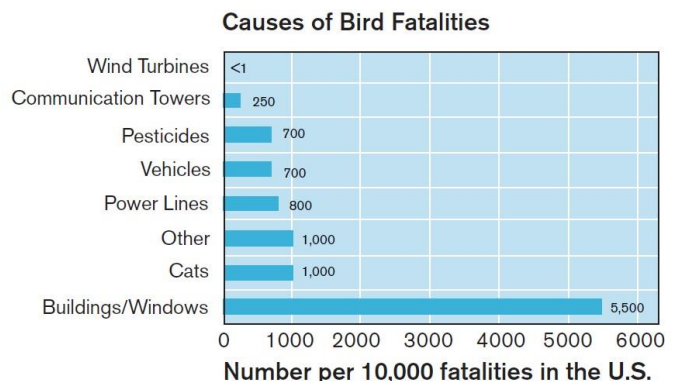
1. **“We have not found any evidence of direct mortality of birds associated with turbines at any location.”**, Monitoring Bird Interactions and Bird Flight-Diverter along a Powerline and at a Windfarm on Nelson Island, Alaska, 2006–2007, ABR – Environmental Research & Services (Note: The windfarm is 3 x 100 kW turbines)
2. **“An independent study lasting almost two years has concluded a wind turbine poses no overt threat to bird and bat life while it generates supplemental power and serves as an educational aid at the Tom Ridge Environmental Center at Presque Isle State Park, Erie.”**, Feb. 11, 2009 press release of the Pennsylvania Dept. of Conservation and Natural Resources concerning their report “A Study of the Potential Effects of a Small Wind Turbine on Bird and Bat Mortality at Tom Ridge Environmental Center, Erie, Pennsylvania”, Kenneth W. Anderson, Gannon University, Dec. 12, 2008
3. **“We cannot assure you that there will be no bird deaths from small-scale wind turbines, but the numbers will reflect a death toll similar to the deaths caused by other stationary objects that birds routinely fly into, not the greater death tolls seen with the large wind turbine farms. We do not feel there is any significant threat to bird populations from small-scale wind turbines, and are pleased to support your AB 1207.”**, Letter from John McCaull, Audubon California, to Assemblyman John Longville, July 17, 2001
4. **“To this day we do not have any records of any of our birds being harmed in any way by the Bergey Windpower turbines, nor by the vertical shafts that support the blades”**, Letter from Dr. Douglas Mock, University of Oklahoma, to Mike Bergey, Bergey Windpower, June 22, 2001

5. **“In twelve sweeps with the Audubon Society of our Beech Mountain, NC test site with six small wind turbines and one cell tower during the Fall migration season in 2005 we found one Starling carcass under the cell tower and some feathers from a small bird under one wind turbine”,** Brent Summerville, Appalachian State Univ., commenting on the SWI Avian Impacts Report, Nov. 14, 2005
6. **“Delineated areas beneath and around the turbines were searched each morning from September 1 through November 1, along with areas along the sides of the nearby office building for comparison. During that period, 2 bird carcasses, one beneath each turbine, were found, while 14 bird carcasses were found beneath windows at the office building. No bat carcasses were found.”,** A Study of Bird and Bat Mortality at a Small Wind Turbine Facility During the 2010 Fall Migration, Woodland Dunes Nature Center and Preserve, Two Rivers, WI, 2010
7. **“This is to confirm that the WDNR does not require or recommend wildlife studies for wind turbines of the size used to supply an individual home, farm, small business, school, or nature center. ... In particular, individual turbines that meet the State’s definition of a small wind turbine have not been associated with wildlife fatalities or behavioral effects, and in my professional opinion, are not likely to be a significant conservation concern. These turbines should not be confused with the large (around 400-foot total height) commercial wind turbines that generate power at a utility scale.”,** Letter from Steven Ugoretz, Wisconsin Dept. of Natural Resources, to Mick Sagrillo, Dec. 21, 2006
8. **“Because of the relatively smaller blades and short tower heights, home-sized wind machines are considered too small and too dispersed to present**

a threat to birds. Researchers do not consider a study of home-sized wind systems worth funding.”, Wind Turbines and Birds, Factsheet of WI Focus on Energy. 2007. Picture and caption from this factsheet shown below.



Residential wind turbines like this one pose little, if any, threat to birds. They are simply too small and too far apart.



Source: Erickson, et al, 2002. "Summary of Anthropogenic Causes of Bird Mortality" Proceedings of the 2002 International Partner's in Flight Conference, Monterey, California.



Costs of Tiered Guidelines

The following range of costs were obtained from quotations provided by three experienced wildlife consulting firms with considerable experience in the wind energy field. They have performed the work described in the draft Guidelines.

USFWS Tier	Field Time Min (Days)	Field Time Max (Days)	Daily Rate (\$/Day)	Min Cost	Max Cost
Tier 1	NA	NA	NA	\$5,000	\$7,000
Tier 2	3	80	\$2,000	\$6,000	\$160,000
Tier 3	20	90	\$4,000	\$80,000	\$360,000
Tier 4	26	52	\$2,000	\$52,000	\$104,000
Tier 5	20	90	\$4,000	\$80,000	\$360,000
Total	69	312		\$223,000	\$991,000