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ENVIRONMENTAL DEFENSE

finding the ways that work

Dispelling Common Myths about Wind Power

Compiled by the *Wind Working Group*

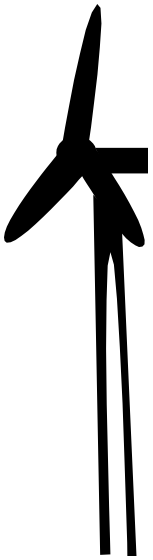
Myth #1: Wind turbines are unusually harmful to birds.

Although birds do infrequently collide with turbines, wind energy poses less of a threat to birds than many other commonplace structures. In fact, the National Audubon Society has stated that it *supports* the development and use of wind power.[1] Fewer than 8 bird deaths per turbine, per year have been recorded during a two-year study at the Tennessee Valley Authority's Buffalo Mountain site.[2*] Other studies that have taken place in New York, Oregon, Vermont, Colorado, Wyoming, Minnesota, and California, have found that collisions with turbines results in an average of 1-2 bird deaths or less per turbine per year.[3] For comparison, each year at least 60 million birds die in collisions with vehicles; at least 98 million in collisions with buildings and windows; and at least 4 million in collisions with communication towers.[4] Important consideration should be given to placement of wind turbines to ensure that turbines are not located along migratory bird flight paths or the flight paths of threatened or rare species.

The ordinary American housecat poses a much greater threat to birds than wind turbines. Housecats are estimated to kill between 100 - 200 million birds each year compared to the 33,000 birds that die from collision with turbines (NWCC footnote 2).

Consider the alternatives; bird deaths that result from fossil energy based power production:[5]

- Tall smokestacks- A study at a single Florida coal fired power plant with four smokestacks recorded an estimated 3,000 bird kills in a single night during a fall migration.
- Oil spills at sea- In a single oil shipping accident, - the Exxon Valdez oil spill in Alaska's Prince William Sound –more than 500,000 migratory birds perished, or about 1,000 times the estimated annual total in California's wind power plants.
- Additional threats to birds from other energy sources include: mercury emissions from coal fired power plants; global climate change resulting from the combustion of fossil fuels; acid rain resulting from coal fired power plant emissions of SO2 and NOx and; destruction of habitat as a result of mining activities associated with the coal, gas, oil and uranium industries.



Myth #2: Wind turbines are noisy.

Today's large wind turbines make less noise (about 45 decibels-dB) than the background noise you hear in your own home (50 dB)! According to the American Wind Energy Association (AWEA), today an operating wind farm at a distance of about 750 to 1,000 feet is no noisier than a kitchen refrigerator or a moderately quiet room.

Myth #3: Many wind turbines are necessary for minimal power generation.

Improved technology has enabled far fewer turbines to produce more electricity. The standard output of a turbine grew from .5 mW in 1995 to 1.5 mW in 2003.[6]

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[*] This site also reports bird deaths at its meteorological tower at 8.1 per year.

Myth #4: Wind turbines are unattractive

In North Carolina, a study to determine public attitudes towards wind energy was recently conducted. The study found that 77.1% of participants who had seen first hand a utility scale turbine said that they liked its appearance.[7] Studies from numerous US states and other countries report that a majority of people think wind turbines are graceful, elegant structures. Many people find turbines to be interesting features in the landscape, enhancing the vista overall. In the UK, the British Wind Energy Association notes that wind farms are popular tourist attractions, with thousands of people each year flocking to visit attractions.

Myth #5: Conventional power sources are less unsightly and environmentally harmful than wind turbines.

Wind turbines cause little damage to the surrounding environments beyond the footprint of the facility and transmissions system and are much less unsightly than conventional power sources.

For comparison, consider the following:

- Conventional power sources require acres and acres of land for unsightly power plants that spew pollutants from smokestacks. In addition to the electric generating facility itself, the plants also require on-site fuel storage facilities and access to cooling water, both of which require additional land.
- Construction of hydropower dams floods riverside lands, permanently eliminating riparian and upland habitat.
- Most generating facilities also produce solid waste by-products of combustion that can be toxic. Solid wastes from power plants are typically dumped into a landfill, another way in which a generating facility impacts land as it extends its environmental footprint beyond the boundaries of the power plant site.[8]
- Mountain top removal strip mining - the process of blasting off entire mountaintops in order to extract thin seams of coal – can strip up to 10 square miles and dump hundreds of millions of waste into as many as 12 valley fills that can be 1,000 feet wide and 1 mile long.
- Conventional power sources rely on the combustion of fossil fuels which are largely responsible for the 78% decrease in visibility from natural levels that has occurred in the southern Appalachian Mountains. In the Great Smokey Mountains National Park, summertime visibility averages only 16 miles, and on many days air pollution reduces the visibility range to less than 5 miles.[9] In this case, one might prefer to see a few turbines on top of a mountain than not be able to see the mountains at all.

A single 750 kilowatt wind turbine, operated for one year at a site with Class 4 wind speeds, can be expected to displace a total of 2,697,175 pounds of CO2, 14,172 pounds of sulfur dioxide, and 8,688 pounds of NOx (AWEA).

Myth #6: Wind power will destroy mountain vistas.

Placement of wind turbines should be restricted so as to not detract from places of important scenic beauty. Potential areas that should be excluded from turbine placement consideration are:

- National Parks
- State Parks
- National Forest lands
- View shed buffers along the Appalachian Trail
- View shed buffer zones along the Blue Ridge Parkway
- Spruce-Fir Forest lands (one of the most unique and endangered ecosystems in the Appalachian region)

Wind turbines should be located where there are:

- Existing communication towers
- Existing transmission lines
- Other forms of existing structures

Myth #7: Wind power will decrease property values in surrounding areas.

Views of wind turbines will not negatively impact property values. A recent study on the economic impacts of wind power states that, "based on a nation-wide survey conducted of tax assessors in other areas with wind power projects, we found no evidence supporting the claim that views of wind farms decrease property values."[10] Other studies, conducted in both the US and abroad, have made similar findings.

Myth #8: Wind Energy will negatively affect tourism.
Large turbines have been found more often to be a positive influence on tourism. The British Wind Energy Association notes that wind farms in the UK are popular tourist attractions, with thousands of people each year flocking to visit them. In Australia, the wind farms are highlighted as one of the attractions for visitors amongst other historical and scenic points of interest. A Scottish study found that nine out of ten tourists visiting some of Scotland's top beauty spots say the presence of wind farms makes no difference to the enjoyment of their holiday, and twice as many people would return to an area because of the presence of a wind farm than would stay away. Yet another survey of more than 300 visitors to Argyll, Scotland found that 91% of visitors said the presence of wind farms in the area made no difference to whether they would return.[11]

Myth #9: North Carolinians don't support wind power.
North Carolinians are in favor of developing wind power in our state. A recent study on public attitudes towards wind power in Western North Carolina found that Western North Carolinians are favorably disposed toward the development of a wind energy industry in the Appalachian Mountains.[12] They want more of their future electricity derived from renewable sources and less from fossil fuels. The study also found that, by over 2 to 1, western North Carolinians do not believe that ridge top turbines should be prohibited. 3 out of 4 study participants feel that if a ridge top already has existing cell towers, they would not mind adding a wind turbine to the clutter. An even higher ratio believes a person should be allowed to erect a turbine on his/her own property for residential use.

References and Contact Info

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