

THE GOSSIP ABOUT WIND POWER

THE GOSSIP:

It will never be competitive with fossil fuels:

Energy from fossil fuels will always be the less expensive option.

It kills birds:

Wind turbines pose a great hazard to birds when sited along their migratory routes.

It decreases property values:

Living close to a wind turbine will lower the selling price of your home.

It's harmful to human health:

Noise and flicker effect cause "Wind Turbine Syndrome."

THE FACTS:

While this may have been the case at one point, the cost of generating electricity from wind has fallen dramatically over the past several years. In some parts of the country, wind energy is now **cost competitive with fossil fuels** (and that's without even taking into account the cost of the environmental damage from fossil fuels). According to the 2013 cost estimates from the **U.S. Energy Information Administration**, the cost of wind power for plants entering service in 2020 is estimated at 7.36 cents per kWh, while the cost of conventional coal is 9.51 cents per kWh. Additionally, since the wind is a free "fuel", putting more wind power onto the grid helps reduce the volatility of regional electricity prices.

The **American Audubon Society** asserts that while wind turbines may kill between 140,000 and 328,000 birds each year, hundreds of millions of birds are killed by other human intervention, such as building collisions (between 365 and 988 million birds killed annually). Additionally, fossil fuels contribute directly to bird death through harmful emissions, habitat destruction, and accidents—the **BP Deepwater Horizon** oil spill alone is estimated to have killed between 7,000 and 23,000 birds. Mass Audubon and Audubon Society of Rhode Island are two great supporters of our program. In fact, Mass Audubon has been our largest customer for many years, using wind power to meet the electricity needs of its sanctuaries.

According to several statistically reliable **studies**, proximity to wind turbines has no correlation with decreases in property value. While some are concerned with the impact of background noise from wind turbines, the evolution of wind technology has almost entirely eliminated the mechanical noise from the turbines, to the point where the **noise level from a turbine** is generally somewhere between that of a refrigerator and a microwave.

Many are under the impression that droning noise and flicker from wind turbines can cause nervous fatigue, headaches, dizziness, irritability, and sleep problems. In fact, a **report** from the Massachusetts Department of Environmental Protection concluded that there was no evidence to support a causal link between exposure to wind turbines and so-called "Wind Turbine Syndrome".

THE GOSSIP:

Nuclear power is clean:

Nuclear reactors do not release greenhouse gases.

It destroys wilderness and scenic views:

Turbines are an eyesore.

Turbine development means losing trees:

Wind power requires too much deforestation.

It's good for the environment:

A report from the US Department of Energy in May 2015 states that technological advancements are **enabling wind power** to become more economic in every state in the nation, including the Southeast, where wind power has not yet been widely adopted. These advancements, such as increasing the heights of towers and the length of blades, enable cost-effective production in places where the average wind speed was formerly too low to justify investment in wind turbines.

This map illustrates the general wind resource potential of the US:

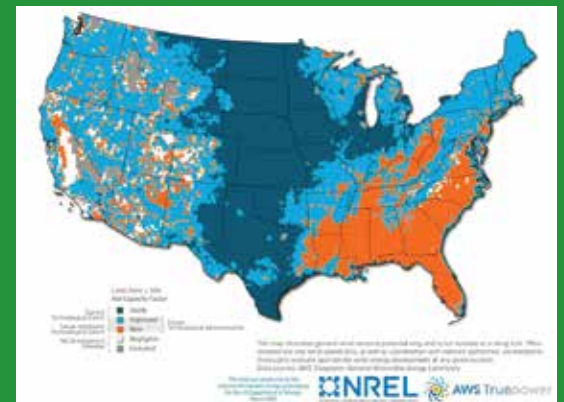
THE FACTS:

While nuclear seems like a cleaner energy source because nuclear reactors themselves do not release greenhouse gases, the reaction process is only one part of a nine stage nuclear fuel cycle. In reality, most of the other stages of this process are heavily dependent on fossil fuels, and the associated carbon emissions from the nuclear power cycle amount to twice as much per kilowatt hour as that of wind power. The nuclear reaction process also produces dangerous radioactive waste, which can remain hazardous for thousands of years.

For some, there is a concern that wind project development will result in fragmenting wildlife habitats and scenery. In reality, wind projects are most often built in areas close to transmission lines, where habitat has already been fragmented, typically by farming and ranching. Because of this, wind projects typically do not further disrupt habitats and scenic views. As for the way wind turbines look, it is in the eye of the beholder (and some psychologists think that it has to do with the way the viewer feels about wind turbines in the first place).

Compared to fossil fuel power stations, wind turbines have a much, much smaller footprint, so fewer trees need to be cleared for the construction of turbines. According to the **American Wind Energy Association**, wind projects on ridgelines can require as little as 2 acres per megawatt. That's not even taking into account the tree loss incurred during coal and natural gas extraction. The hydraulic fracturing in the Marcellus Shale region of PA disturbed approximately **5,255 hectares** of land, most of which was forested area.

This one's true! Wind energy releases no pollution into the air or water, and does not contribute to global warming. Using more wind power reduces our demand for carbon-intensive fossil fuels.



The Bottom Line: Wind power is the most affordable zero-emission source of electricity. In contrast to fossil fuels, such as coal, oil and gas, wind power emits no greenhouse gases, and has a comparatively miniscule impact on the environment. And, wind power is accesible to all—in fact, you can choose wind power by becoming a member of our **New England Wind** program today!