

# Wind Energy – Clean, Domestic Energy for Tennessee

## Tennessee is already taking advantage of wind energy.

The state is home to the Southeast's first wind farm, Buffalo Mountain, which generates enough electricity to power 3,400 homes a year. Additionally, the Tennessee Valley Authority (TVA) has entered into contracts with wind farms across the Midwest, delivering 1,242 megawatts (MW) of low cost energy to TVA customers.

Wind energy can play a greater role in Tennessee's energy mix. **Expanding wind power in the state would reduce air pollution, save precious water resources, and provide significant wildlife benefits.**

## Wind Power is a Clean, Healthy Energy Source, and Does Not Emit Harmful Air Pollution:

- The American Lung Association “supports the use of clean energy, such as solar power, wind energy and geothermal energy technologies because these sources of energy can greatly reduce the amount of unhealthy air pollution released into the atmosphere each year.”
- There is no credible, peer-reviewed scientific studies that show that wind turbines cause harm to human health.
- The Buffalo Mountain wind farm has been in operation for over a decade, yet the project continues to generate clean, renewable energy without negative impact.
- A report by the Department of Energy shows that if the U.S. receives a significant portion of its power from wind energy, the country could save at least \$52 billion annually in health-related costs due to reduced pollution.

## Wind Energy is a Net Positive Benefit for Wildlife:

- The National Wildlife Federation, Audubon Society and others support smartly sited wind farms.
- A study in Energy Policy, found that fossil-fueled power plants, on a per unit of energy basis, are estimated to kill 17 times more birds than wind energy. So for every megawatt hour of electricity from a wind farm that replaces fossil fuels, seventeen times as many birds may be saved.
- Another study provided by New York State Energy Research and Development Authority concluded that wind energy does not create a population-level threat to birds and, “non-renewable electricity generation sources, such as coal and oil, pose higher risks to wildlife than renewable electricity generation sources, such as hydro and wind.”
- Cats and buildings are bigger threats to birds than wind farms.



Buffalo Mountain Wind Farm. Source: NREL

## Wind Power Saves Water:

- Wind power consumes no water to generate electricity, providing landowners with a locally-made, drought-resistant cash crop.
- Wind power in 2015 saved nearly 73 billion gallons of water or about 553 billion bottles of water.
- According to data released by the American Wind Energy Association in 2016, wind energy saves about 226 gallons of water for every American each year.
- According to the Department of Energy's *Wind Vision* report, supplying 20 percent of the nation's electricity with wind power would save 173 billion gallons of water in 2030.

## Sources:

- American Lung Association. “[Clean Energy](#)”
- Department of Energy (2015). “[Wind Vision Report](#)”
- Energy Policy (June 2009). “[Contextualizing Avian Mortality](#)”
- New York State Energy Research and Development Authority. “[Synthesis of Electricity Generation Impacts to Wildlife](#)”
- American Wind Energy Association (March 2016). “[Wind power pays \\$222 million a year to rural landowners](#)”

**The Southern Wind Energy Association (SWEA)** is an industry-led initiative that works to promote the responsible development of wind energy throughout the South. SWEA's scope includes onshore wind development in-region, wind energy use in-region, offshore wind energy development in-region, and wind energy-related transmission development that affects the region.



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