

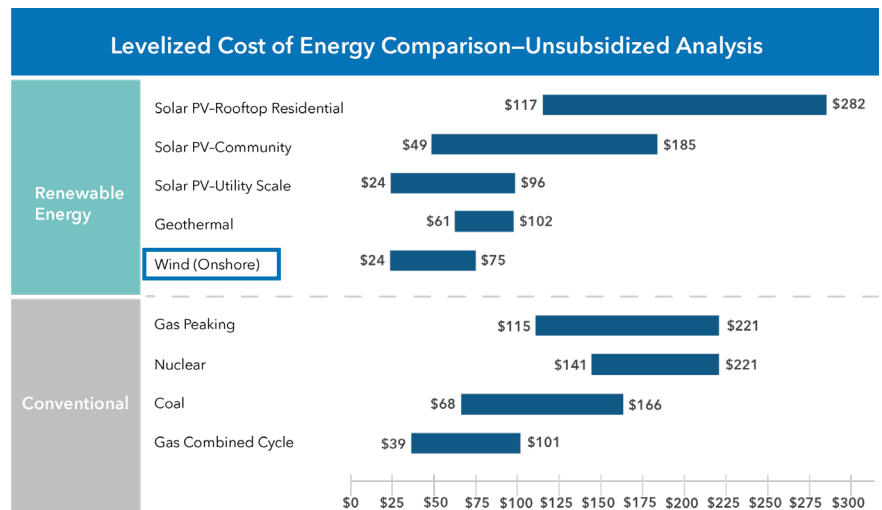
WIND ENERGY FACTS

Operating wind power capacity in the United States now stands at over 135 gigawatts (GW), enough to power over 40 million average American homes.¹

More than 13 GW of land-based wind energy generation came online in the United States in 2021, constituting 32% of all new utility-scale power generation installations. Over the past decade, wind energy has represented 30% of total capacity additions, driving a record number of domestic wind energy jobs. In 2021, more than 120,000 Americans were working in the wind industry.

Fact: Wind energy helps consumers save money.

The cost of electricity from wind has dropped by 72% since 2009, and it is now among the cheapest source of electricity in many places across the United States.² Utility-scale renewable energy prices are now significantly below those for coal and gas generation, and they are less than half the cost of nuclear. Building new wind energy generation is even cheaper than running existing coal plants. By adding more wind energy to their systems, utilities can help make sure that the consumer costs of energy remain stable, since they are not affected by fluctuating fuel prices.



Source: Lazard, "Levelized Cost of Energy Analysis," Version 16.0, 2023

Fact: Wind energy is reliable.

Wind energy is the largest source of renewable electricity in the United States, generating over 9% of the country's electricity. To put that into perspective, wind now generates enough electricity to meet the demands of California (the world's fourth-largest economy) and Illinois combined. Eleven states—Colorado, Iowa, Kansas, Maine, Minnesota, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, and Texas—each generated more than 20% of their electricity from wind in 2021. In four states—Iowa (55%), Kansas (45%), Oklahoma (41%), and South Dakota (52%)—wind is now the single largest source of electricity generation.³

Fact: Well-sited wind farms will help save birds.

Wind energy is responsible for less than 0.01% of human-caused bird fatalities (less than one out of every 10,000 bird deaths).⁴ Wind farms are sited to avoid critical bird migratory paths and minimize impacts on sensitive species; they cause far fewer bird deaths than communications towers and other types of infrastructure, and they play an important part in offsetting the emissions that are causing global temperatures to rise, an effect that scientists expect may put two-thirds of North American birds at increasing risk of extinction. The National Audubon Society's report "Survival by Degrees" reveals that nearly 400 North American bird species are at risk of extinction due to climate change. Audubon sees transitioning to renewable energy sources—including well-sited wind—as essential to slowing the current rate of global temperature rise and averting the worst catastrophe for birds and people.⁵

Fact: Wind energy is one of the world's healthiest sources of electricity.

More than 20 years of research by governments, universities, and public health authorities across the globe has repeatedly confirmed that wind turbines properly sited in accordance with industry standards pose no threat to public health. Over 100 peer-reviewed scientific studies evaluated by independent experts on wind energy and health have reached the same conclusion. A well-regarded Canadian study examined people living in close proximity to wind energy facilities. Based on those examinations and self-reported data from those living near turbines, the study found no evidence that wind turbine sound has any effect on sleep, illnesses, chronic health conditions, perceived stress, or quality of life.⁶ Furthermore, researchers from the Harvard School

of Public Health⁷ and the Department of Energy's Lawrence Berkeley National Laboratory⁸ have found that renewable energy generation can have health benefits worth billions of dollars each year.

Fact: All energy sources have incentives.

The U.S. government has a long history of supporting the development of electricity generation technologies, fuel production, and electric grid improvements. Between 1950 and 2016, 65% of all energy subsidies went to conventional fuel sources (coal, gas, and nuclear).⁹ Today, wind and solar projects are eligible for either the investment tax credit (ITC) or the production tax credit (PTC). To qualify for these credits, projects are required to meet prevailing wage and apprenticeship requirements. In addition, projects can qualify for improved credits if they use wind turbines or solar panels that are manufactured in the United States. The increased industry demand for domestically made equipment is driving new investment in U.S. manufacturing capacity and creating manufacturing jobs.

Tax credits for energy are not unique to wind and solar. The PTC is available to many other sources of energy, including nuclear, geothermal, and hydroelectric power. Other tax incentives, such as the 45Q carbon capture credit, are available to subsidize natural gas- and coal-intensive projects.



Fact: Wind farms increase local income, land, and property values.

According to a 2022 study published in the Energy Policy Journal, "...wind energy installation led to economically meaningful increases in county GDP per-capita, income per-capita, median household income, and median home values."¹⁰ These effects begin during project construction and accelerate through a project's operating years. Even better, the study finds that these benefits continue to scale as the amount of installed generating capacity per capita increases. In other words, the more wind energy in a community, the greater the economic benefit its residents will receive.

SOURCES

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