

Texas Wind Energy

Texas is the fifth largest wind energy producer in the world, and is double that of the second-place state in the US. More than ¼ of the US wind power comes from the Lone Star State.

The largest wind farm in Texas is “Los Vientos” (“the winds”) in Starr County. Here’s a list of the state’s largest wind farms: <https://www.energybot.com/blog/biggest-wind-farms-in-texas.html#the-largest-wind-farms-in-texas>

This site also has a map of wind farms and interesting facts. Here is another good map: <https://nri.tamu.edu/blog/2017/december/map-of-the-month-wind-energy-in-texas/>

We often wonder why we see so many turbines not operating. It is because our grid does not have the transmission capacity to move the amount of energy produced if all turbines were operating at once. In 2023 curtailments reached 13%, meaning that there is more electricity produced than the grid can support.

The primary focus of RLAT is property rights. At the heart of wind power issues is transmission towers right of ways, easements, eminent domain, leases, and other concerns voiced by private property owners.

Harvesting the wind is a clean, renewable source of energy. There are economic benefits for individuals and communities, and some argue that there is a smaller carbon footprint with wind energy. The most obvious downside of wind energy is that the industry is dependent on, well...wind! There are numerous environmental concerns, expensive setup costs, and location limitations. Whether the pros outweigh the costs is a matter of ongoing debate.

Depending on the location, private wind harvesting can be a good option for ranches because many rural areas have enough wind speeds to generate electricity. Consumer wind turbines can be used to power a ranch's home or farmstead, pump water, and support feedlot operations. They can also reduce a ranch's reliance on the electric grid, which can be a good investment with paybacks of 3–5 years. Wind turbines can last 20–30 years with proper maintenance.

Ranches can install small wind turbines, which are typically between 1–100 kW in capacity. These turbines can often be installed without significantly affecting a ranch's ability to plant crops or graze livestock. However, smaller turbines tend to have a higher cost per unit of electricity generated than larger turbines, which can increase the payback period. In areas with low wind, a mechanical or solar-powered windmill may be a better option.

Before investing in wind power, it's important to conduct a thorough engineering and financial analysis. It's also a good idea to use an objective method to assess the windiness of a site, as personal impressions can be inaccurate. Other things to consider include insurance, how the turbines might affect the value of the ranch, environmental impact, and other renewable energy options, including solar power.