



FACT SHEET

WIND ENERGY 101

UNDERSTANDING THE BASICS OF WIND ENERGY ON LAND

Wind energy provides reliable, clean power that strengthens local economies and meets growing energy needs. The wind industry **creates jobs, drives economic growth, and provides additional income opportunities for farmers.**

Here's why it's a smart and sustainable choice for our region:




HOW WIND WORKS

- Wind turbines harness wind energy by converting the kinetic energy of wind into electricity. When blades turn, they spin a rotor connected to a generator. Grouped together in wind farms, turbines provide bulk power to the electrical grid. [1] Taller turbines, reaching **up to 700 feet**, are essential for capturing wind at greater heights, especially in the Southeast.



WIND AND AGRICULTURE

- Onshore wind turbines use **less than one acre of land each**, allowing farmers to continue planting crops and grazing livestock around them. Livestock are unaffected by turbines, and landowners can earn more per acre by hosting a turbine than from traditional farming or ranching activities. This additional income helps diversify and stabilize farm operations, providing guaranteed, long-term revenue. [2]



Onshore wind has the **lowest cost** of any energy technology, making it the **most affordable energy source in the US**, starting at \$27/MWh. [8]



WORKING IN WIND

- Wind energy projects create new job opportunities during construction, and for ongoing operations, and maintenance. Building a new wind farm can create **over 100 jobs**. Wind turbine technician is the fastest-growing growing in the U.S., offering a median pay of **\$61,770 per year**. [3]



RURAL INVESTMENTS

- Wind farms significantly boost local property taxes, funding essential services such as schools, roads, and emergency services. A single county can receive **over \$100 million** from a wind project, with the U.S. wind industry paying more than **\$1 billion annually** in state and local taxes. [4,5]



ENERGY INDEPENDENCE AND RESILIENCE

- Generating local electricity **reduces dependence on foreign energy, enhances security, and stabilizes the grid**, making Delta region communities more self-reliant and less vulnerable to energy price fluctuations.



BIRD PROTECTION

- Strict permitting **ensures bird safety** by adhering to laws like the **Endangered Species Act** and the **Migratory Bird Treaty Act**. While wind turbines can impact some bird populations, evolving turbine **technology** now includes radar systems to detect and protect aviary species. These systems can warn birds of collision risks, automatically stop turbines, and monitor bird and bat behavior, providing real-time updates to reduce wildlife impact [6,7]



Wind energy brings **tremendous economic potential** to the Southeast, especially in agricultural regions and communities ready for growth. By providing farmers with extra income while preserving their land and creating local jobs, **wind power energizes the regional economy** where it can make the biggest impact. Embracing wind energy is a step toward a more **vibrant and prosperous future** for the Southeast.

1. "How Do Wind Turbines Work," [U.S. Department of Energy](#).
2. "Earn Income from Wind Turbines on Your Land," [LandGate](#).
3. "Wind Can Power 3.3 Million New Jobs Over Next Five Years," [Global Wind Energy Council \(GWEC\)](#).
4. "Mississippi's first utility-scale wind farm is officially online," [Electrek](#).
5. "Wind Technologies Market Report," [Lawrence Berkeley National Laboratory \(LBL\)](#).
6. "How It Works: IdentiFlight System," [IdentiFlight](#).
7. "Vestas Partners with NRG Systems to Resell Bat Deterrent Technology," [NRG Systems](#).
8. "Lazard's Levelized Cost of Energy Plus," [Lazard](#).

