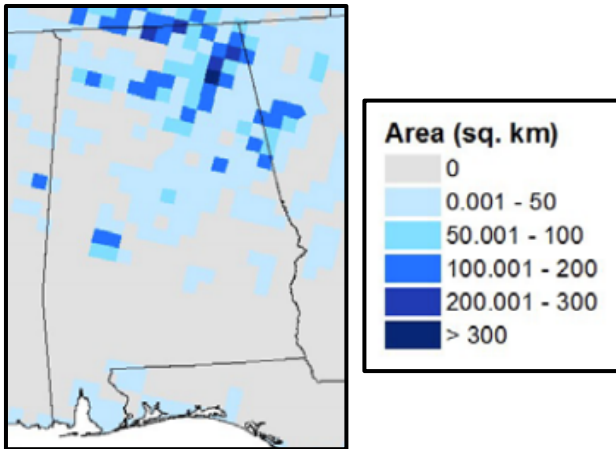


Alabama Wind Energy Opportunities

Alabama is already taking advantage of wind energy. In 2012, Alabama Power announced the purchase of 404 megawatts (MW) of wind energy from Oklahoma—enough to power the equivalent of 115,000 homes a year. Additionally, in September of last year, the Public Service Commission approved Alabama Power's request for 500 megawatts of renewable energy. **Now Alabama has great potential for wind energy development within the state.** Advanced wind turbine technology and reduced costs have now made wind energy economically feasible throughout the state. A wind project in Alabama could provide beneficial economic development opportunities for local communities.

Advanced Turbine Technology

In the past five years, wind turbine technology has greatly evolved. Wind turbine towers can reach up to 459 feet (140) meters in height. **Taller turbines and longer blades are capable of capturing more wind, thus harnessing more electricity and reducing wind energy prices.**



Adapted from National Renewable Energy Lab (2013)

As turbines increase in height, Alabama contains a much greater area of land viable for development. The shading on the map above represents new available land for wind development with modern turbine towers of 360 feet (110 meters) achieving a 35% capacity factor or greater. **Over 7,000 MW of onshore wind potential currently exist in Alabama.**

Reduced Costs

Wind energy is now one of the least expensive sources of new power generation in the country. Costs have declined by 39% over the past decade for lower wind speed areas like Alabama (averaging 13.4 miles per hour, or 6 meters per second). As technology improves, wind energy prices will continue to drop.

Economic Development Opportunities

Alabama is currently home to 15 wind energy-related manufacturing facilities serving the domestic and international wind industry markets. Developing land-based wind in the state could greatly add to local economic benefits and create more wind energy-related jobs.



Credit: Dennis Schroeder / NREL

Based on the Jobs and Economic Development Index model*, developed by the National Renewable Energy Laboratory (NREL), developing 1,000 MW worth of wind energy capacity in Alabama could:

- Generate approximately 4,504 full-time equivalent jobs during construction periods with a total payroll of \$227 million
- Support approximately 130 ongoing operation jobs with a total annual payroll of \$6.6 million
- Produce approximately \$3 million in extra income for farmers/households or others who lease their land to developers

Wind energy is currently an untapped resource in Alabama. Yet, with advanced turbine technology and lower costs, **wind energy development could greatly boost Alabama's economy and provide homegrown and affordable energy.**

*Jobs and Economic Development Impact (JEDI) model, developed by the National Renewable Energy Laboratory (NREL).

More information about the JEDI model can be found at: <http://1.usa.gov/XpVcWY>

Sources:

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