Georgia Wind Energy Opportunities

Georgia is already taking advantage of wind energy. Georgia Power is purchasing 250 megawatts (MW) of wind energy from Oklahoma—enough to power the equivalent of 50,000 homes a year. In Georgia Power's 2016 draft integrated resource plan, the utility proposed an additional 425 MW of utility-scale renewables. SWEA, currently intervening, is advocating for 2,000 MW.

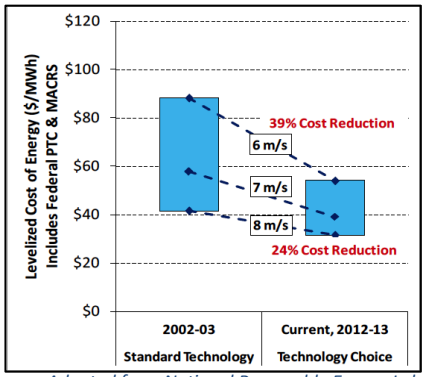
Georgia has great potential for wind energy development within the state. Advanced wind turbine technology and reduced costs have now made wind energy economically feasible for Georgia. A wind project in Georgia could provide beneficial economic development opportunities for local communities.

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.** As turbines increase in hub height, Georgia contains a much greater area of land viable for development. **Approximately 2,500 MW of onshore wind potential may currently exist in Georgia.**

Reduced Costs

Wind energy is now one the least expensive sources of new power generation in the country. After all, Georgia Power's decision to purchase wind energy from Oklahoma stemmed from the extremely low cost of energy for Georgia ratepayers.



Source: Adapted from National Renewable Energy Lab 2013

The chart in the lower corner shows that costs have declined by 39% over the past decade for lower wind speed areas like Georgia (averaging 13.4 miles per hour, or 6 meters per second). As technology improves, wind energy prices will continue to drop.

Economic Development Opportunities

Georgia is currently home over 20 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: Casey Joyce/ 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 Georgia could:

- Generate approximately 4,472 full-time equivalent jobs during construction periods with a total payroll of $237 million
- Support approximately 130 ongoing operation jobs with a total annual payroll of $7 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 Georgia. Yet, with advanced turbine technology and lower costs, **wind energy development could greatly boost Georgia'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:
Williams, Dave (April 2013). "Georgia Power commits to wind energy," Atlanta Business Chronicle. http://bit.ly/1o94bZH
Joseph Owen Roberts (September 2013). Presentation, Land-Based Wind Potential Changes in the Southeastern U.S, NREL
Georgia Power (January, 2016): "Document Filing #161828"

swea
southernwind.org