

OFFSHORE WIND

GENERATING OPPORTUNITY FOR CURRITUCK COUNTY, NC

The rise of offshore wind has the potential to fill the sails of our local economy. **North Carolina already has 27 wind-related manufacturing facilities that employ over 1,000 people.** As even more offshore wind projects develop up and down the East Coast, Northeastern NC is in an ideal position to become a key player in the industry and bring business, jobs and a boom to the local economy.

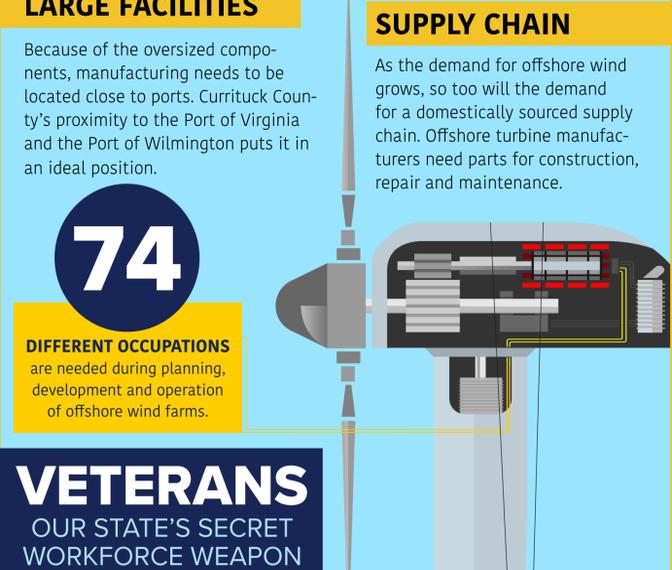
\$142 BILLION

Investment by U.S. wind industry in new projects over the last decade



“Offshore Wind Energy development provides an opportunity for hundreds of millions of dollars in economic development and thousands of new jobs in eastern NC...”

- North Carolina Clean Energy Plan



WIND INDUSTRY MUST-HAVES

LARGE FACILITIES

Because of the oversized components, manufacturing needs to be located close to ports. Currituck County's proximity to the Port of Virginia and the Port of Wilmington puts it in an ideal position.

74

DIFFERENT OCCUPATIONS are needed during planning, development and operation of offshore wind farms.

LOCAL MATERIALS

Construction of a large quantity facility requires large quantities of concrete, aggregate and other materials, much of which is purchased from local businesses.

SUPPLY CHAIN

As the demand for offshore wind grows, so too will the demand for a domestically sourced supply chain. Offshore turbine manufacturers need parts for construction, repair and maintenance.

VETERANS

OUR STATE'S SECRET WORKFORCE WEAPON

- The wind industry hires veterans at a rate **67% higher** than the average U.S. industry.
- There are over **3,200 veterans living in Currituck County** and close to **250,000 living in the Hampton Roads region.** Every year, roughly **13,000 of our region's military personnel leave service** for the private sector.
- **Veterans bring a unique set of skills,** a strong work ethic and the ability to work with others. They are used to working with heavy equipment in adverse work environments.
- The American Wind Energy Association's outreach program for transitioning service members and veterans provides guidance on how to translate military skills to wind industry skills. www.awea.org
- Median pay for a wind turbine technician is **\$54,370** with over **4,000 new positions** coming in the next decade.



ADVANTAGE: SOUTHEAST

WHAT MAKES THE ATLANTIC COAST SO APPEALING TO THE INTERNATIONAL OFFSHORE WIND INDUSTRY?



The Southeast offers competitive advantages of lower labor costs in manufacturing and construction, low electricity costs, favorable business environments, major R&D facilities and universities, and established rail and road transportation.



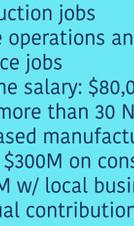
SUPPLY CHAIN

There are 100+ facilities in 11 Southeastern states providing components to the industry



POPULATION

North Carolina, South Carolina and Florida rank among the fastest-growing U.S. states



LOWER COSTS

Construction costs in the Southeast are dramatically less than most of the country

COMING SOON TO THE ATLANTIC OCEAN



► **Dominion Energy** is moving forward to create the largest offshore wind power project in the nation. The farm will include 220 turbines on 112,800 acres, located 27 miles off the coast of Virginia Beach. Turbine installation is scheduled for completion in 2026.

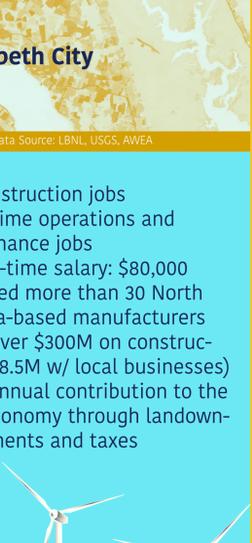


► In 2017, the **U.S. Bureau of Ocean Energy Management (BOEM)** awarded a 122,405-acre lease to **Avangrid Renewables** for the development of a Wind Energy Area (WEA) 24-nautical miles off the coast of Corolla. The company is currently in the early stages of surveying and project development.



NOW BLOWING

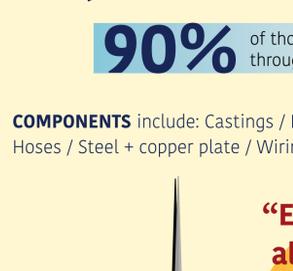
The Desert Wind Farm (aka Amazon Wind Farm US East) was the first large, land-based wind farm in the Southeast United States. It came online in 2016 and features 104 wind turbines on over 22,000 acres located west of Elizabeth City, NC.



WINDFALL

How the Amazon Wind Farm boosted the economies of Pasquotank & Perquimans counties

- 500 construction jobs
- 17 full-time operations and maintenance jobs
- Avg full-time salary: \$80,000
- Employed more than 30 North Carolina-based manufacturers
- Spent over \$300M on construction (\$18.5M w/ local businesses)
- \$1.4M annual contribution to the local economy through landowner payments and taxes



FACT: The Amazon Wind Farm is the largest taxpayer in both Pasquotank and Perquimans!



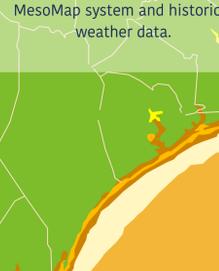
WIND-RELATED MANUFACTURING OPPORTUNITIES IN THE OFFSHORE SUPPLY CHAIN

The offshore wind industry is primarily located in the European Union, but they are looking to locate facilities in the U.S. to meet significant demand by East Coast states.

8,000 different components required to build a wind turbine

90% of those components are purchased through contract manufacturers

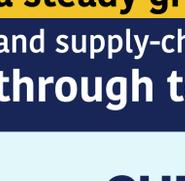
COMPONENTS include: Castings / Forgings / Fasteners / Rods / Tubing Hoses / Steel + copper plate / Wiring / Seals / Gears / Coatings / Retainers



“European suppliers are already hitting capacity constraints, which is accelerating the search for U.S.-based solutions and provides an opportunity for American companies to enter the market.”

- Liz Burdock, CEO and president, Business Network for Offshore Wind

WHY THE NC COAST BLOWS AWAY THE COMPETITION



FASTER

North Carolina's shallow waters and long coastline help generate higher wind speeds.



STEADIER

The Mid-Atlantic coast generates a steadier supply of wind, which means a more reliable source of energy.



MORE

In 2010, the National Renewable Energy Laboratory found that NC had the largest wind resource potential of any state on the East Coast.



NORTH CAROLINA OFFSHORE WIND SPEED
The annual wind speed estimates for this map were produced by AWS Truepower using their MesoMap system and historical weather data.

Wind Speed at 90 m	
m/s	mph
0.0-6.0	0.0-13.4
7.0-7.5	15.7-16.8
7.5-8.0	16.8-17.9
8.0-8.5	17.9-19.0
8.5-9.0	19.0-20.1
9.0-9.5	20.1-21.3

“...good news for suppliers, as the anticipated steady procurement of offshore wind power means a steady growth of work packages and supply-chain contracts from now through to 2030.”

- Stephanie McClellan, Director, SIOW

CURRITUCK COUNTY BUSINESS OWNERS: WANT TO LEARN MORE?

CALL LARRY

(252) 232-6015

SOURCES
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<https://eerscmapp.usgs.gov/uswtadb/>
<https://www.awea.org/wind/101/basics-of-wind-energy/wind-facts-at-a-glance>
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www.ThinkCurrituck.com