



NORTH CAROLINA

LEADING THE FUTURE OF THE
WIND ENERGY INDUSTRY



**THE POTENTIAL FOR
RELIABLE, AFFORDABLE
OFFSHORE WIND ENERGY
IN NORTH CAROLINA THAT
GROWS OUR ECONOMY
AND BENEFITS OUR
ENVIRONMENT HAS NEVER
BEEN STRONGER.**



Roy Cooper,
Governor of North Carolina



NORTH CAROLINA: CLEAN ENERGY IS IN THE AIR

POWERING THE FUTURE

LARGEST

COMMERCIAL WIND FARM IN SOUTHEAST

Currently, North Carolina is home to the largest wind farm in the Southeast US, a 104-turbine wind farm near Elizabeth City. The windfarm has a total rated capacity of 208 megawatts – enough capacity to power 61,000 homes annually.

120+

SUPPLIERS

The wind energy industry has a strong supply chain presence in North Carolina with more than 120 active suppliers and more than 30 of them producing components for the wind power sector, according to the Southeastern Wind Coalition. These companies are eager to engage in this new market.

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OFFSHORE WIND ENERGY POTENTIAL

North Carolina has the largest resource potential of any state on the East Coast, with 297 gigawatts (GWs) of offshore wind capacity at 90 meters above the surface within 50 miles of the coast, according to the National Renewable Energy Laboratory.

55,000+

EXPERIENCED WORKERS

North Carolina's wind energy industry is growing rapidly and ranks seventh nationally for Wind Turbine Service Technicians job growth. The state employs 1,000 people working directly in the industry and has more than 55,000 workers with the experience to support and service both on- and offshore sites, including electrical and mechanical technicians, power dispatchers, construction managers, and others.

MAKING HISTORY IN THE WIND INDUSTRY

2017

In March 2017, The Kitty Hawk Wind Energy Area (WEA) became the first leased for development by Avangrid Renewables. At full development, this WEA is projected to generate 2.5 GW of electricity, the equivalent of powering 700,000 homes.

In July 2017, Governor Cooper signed HB589, Competitive Energy Solutions for NC, and simultaneously issued Executive Order 11 (E011), Promoting Wind Energy Development. Under E011, Cooper prompted the North Carolina Department of Environmental Quality (NCDEQ) to expedite wind energy permitting, promote wind energy industry growth, and recruit new wind energy facilities.

2018

Governor Roy Cooper announced Executive Order 80: North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy which directed Cabinet agencies to develop strategies to meet ambitious carbon reduction goals.

LABOR SUPPLY FOR TOP TURBINE MANUFACTURING OCCUPATIONS

North Carolina offers wind energy developers an abundant and affordable supply of labor. In fact, the state's turbine manufacturing industry wages are below the national average with appreciable job growth.

62,600+ ↑ 1%

Assemblers and Fabricators

NC Median Salary  \$31,392
 US Median Salary  \$37,454

17,500+ ↑ 30%

Industrial Machinery Mechanics

NC Median Salary  \$55,529
 US Median Salary  \$58,751

49,900+ ↓ 1%

Metal and Plastics Workers

NC Median Salary  \$41,090
 US Median Salary  \$42,884

9,100+ ↑ 22%

Industrial Engineers

NC Median Salary  \$81,761
 US Median Salary  \$95,450

22,500+ ↑ 11%

First-Line Supervisors of Production Workers

NC Median Salary  \$60,611
 US Median Salary  \$61,797

8,200+ ↑ 33%

Mechanical Engineers

NC Median Salary  \$79,581
 US Median Salary  \$95,306

Job growth above compares data between 2012 and 2021.

2021

In 2021, EO 218, Advancing North Carolina's Economic and Clean Energy Future with Offshore Wind was signed, setting the target for the development of 2.8 GW of offshore wind energy production off the North Carolina coast by 2030 and 8.0 GW by 2040.

In October of the same year, Governor Cooper signed landmark bipartisan legislation directing North Carolina utilities to cut power sector carbon emissions 70% by 2030 and reach carbon neutrality by 2050 using least-cost methods and without sacrificing reliability.

2022

The Wilmington East WEA in Carolina Long Bay was leased to TotalEnergies Renewables USA and Duke Energy Renewables Wind. The lease areas represent a potential of at least 1.3 GW of offshore wind energy, enough to power nearly 500,000 homes.

OFFSHORE WIND ENERGY AREAS



INDUSTRY RESOURCES

- **SMART-POWER Memorandum of Understanding (MOU)** – This bipartisan effort was established by the governors of North Carolina, Maryland, and Virginia to provide a framework for the three states to cooperatively promote, develop, and expand offshore wind energy and the accompanying industry supply chain and workforce.
- **Building North Carolina's Offshore Wind (OSW) Supply Chain report** examines the state's opportunities to meet the industry's supply chain and manufacturing needs and recommends actions the state might take to leverage the emerging OSW opportunity.
- **ABB**, an industry leader in power transmission and distribution, has a principal research facility located in Raleigh, North Carolina where they are conducting a Department of Energy-funded National Offshore Wind Energy Grid Interconnected Study.
- **An MOU** with the UK was established July 2022, when Governor Cooper and the United Kingdom Minister of State for International Trade signed an MoU on cooperation and trade relations to strengthen economic ties and transition to a clean energy economy.
- **STEPs4GROWTH** was created in August 2022 when North Carolina Agricultural and Technical State University was awarded \$23.7 million from the American Rescue Plan Good Jobs Challenge to create the program. STEP's4GROWTH will create quality, demand-driven training for the state's growing clean energy sector, graduating 3,000 trainees over the first four years then 1,500 trainees every year afterward.
- **An MoU** between the North Carolina Department of Commerce and the Danish Energy Agency was established March 2023 to help promote and foster a mutually beneficial relationship through shared knowledge, experiences, data, and best practices relevant to the development of offshore wind energy and related sectors.



ECONOMIC
DEVELOPMENT
PARTNERSHIP of
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