SOUTHEASTERN
WIND COALITION

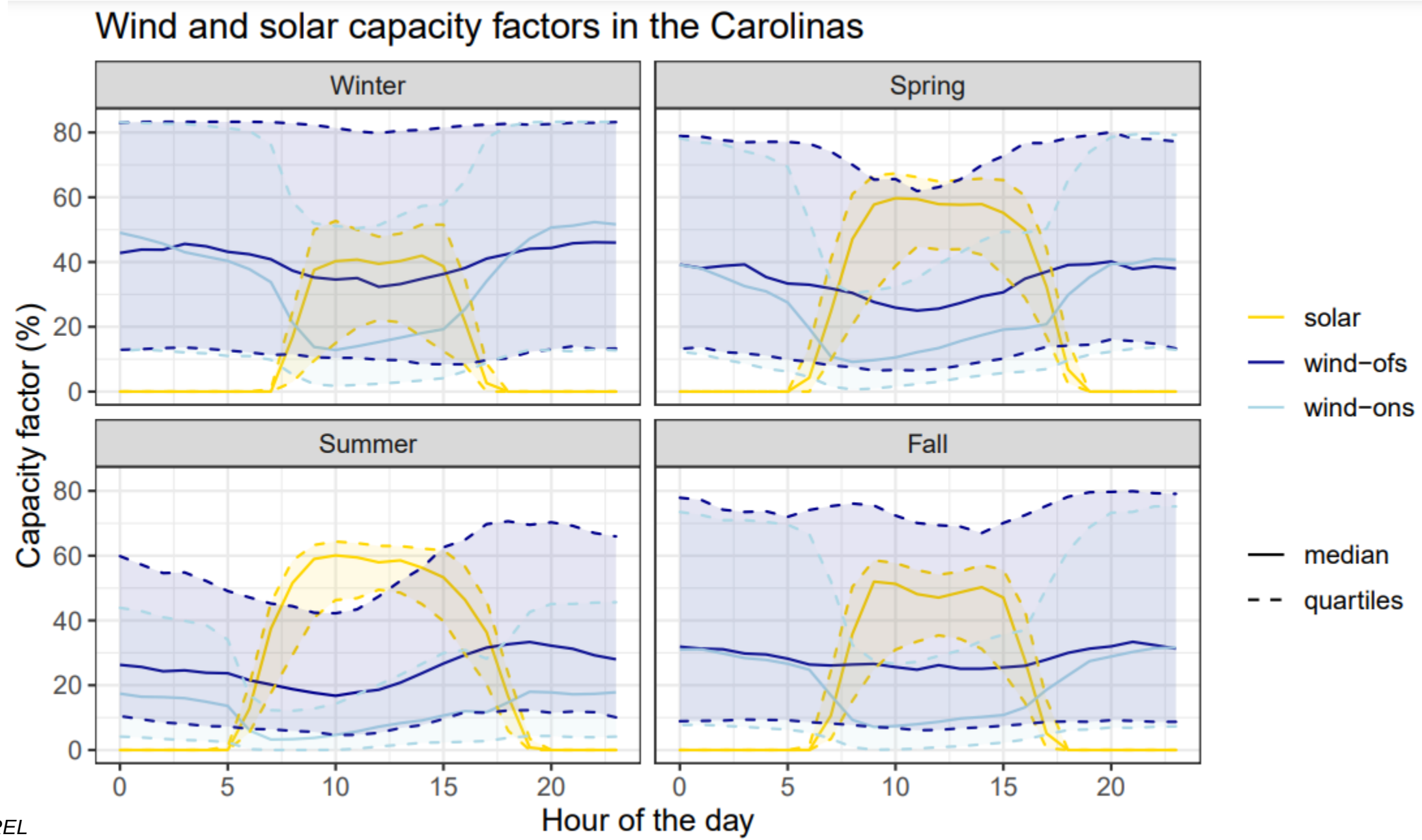
North Carolina Offshore Wind

SEWC Overview

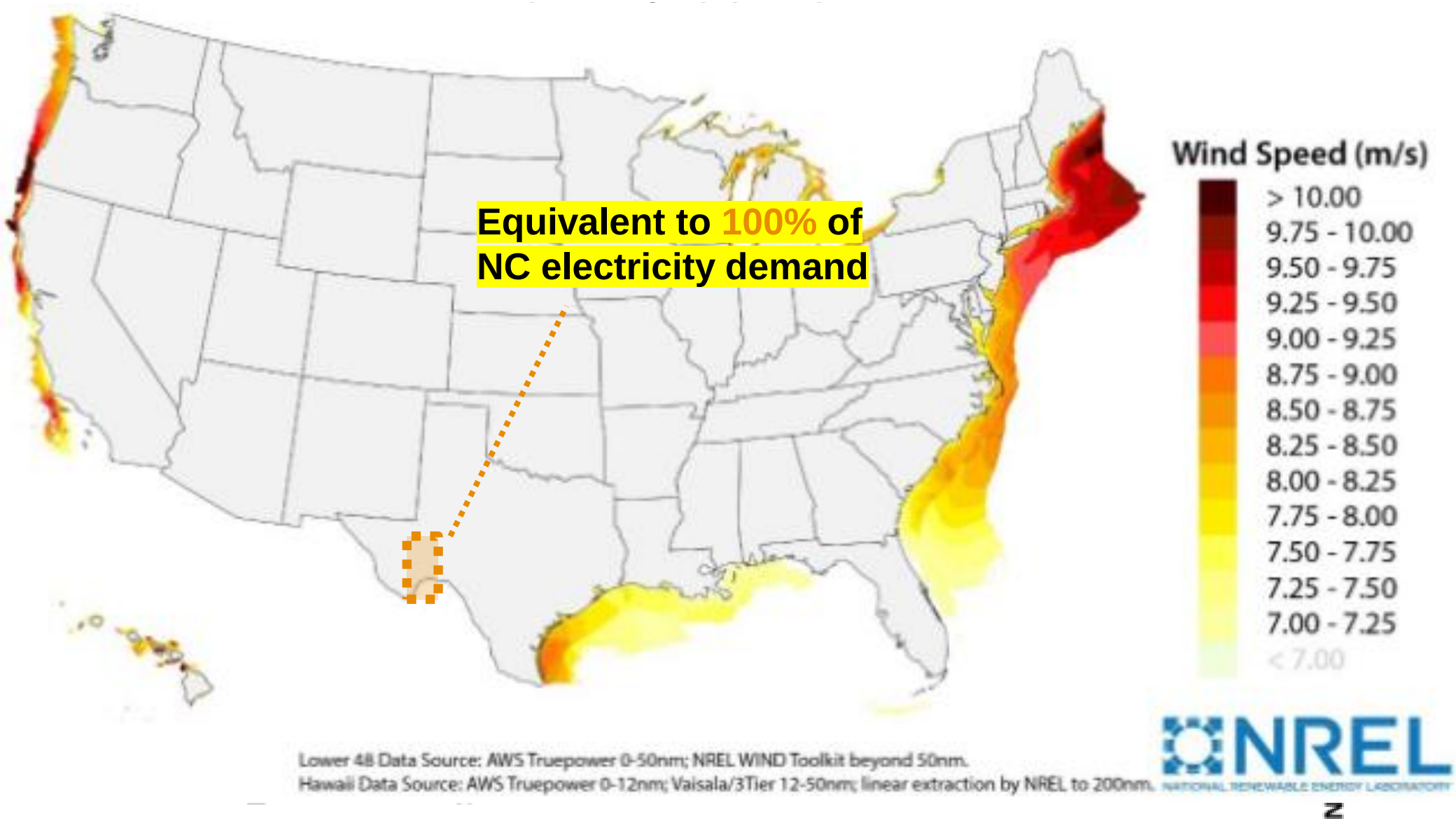
- SEWC focuses on outreach and education to advance the wind industry in the Southeast. We take an objective, data-driven, and business focused approach to understanding and communicating the economic case for wind energy in the Southeast
- SEWC's footprint covers 11 states in the Southeast to promote land-based wind, offshore wind, and wind imports
- We promote collaboration and information sharing to make wind a more viable option

SOUTHEASTERN
WIND COALITION

Why Offshore Wind?


Wind and solar capacity factors in the Carolinas
Winter
Spring
Summer
Fall
Capacity factor (%)
0
20
40
60
80
0
5
10
15
20
Hour of the day
solar
wind−ofs
wind−ons
median
quartiles

Source: NREL


Equivalent to 100% of
NC electricity demand
Wind Speed (m/s)
> 10.00
9.75 - 10.00
9.50 - 9.75
9.25 - 9.50
9.00 - 9.25
8.75 - 9.00
8.50 - 8.75
8.25 - 8.50
8.00 - 8.25
7.75 - 8.00
7.50 - 7.75
7.25 - 7.50
7.00 - 7.25
< 7.00
Lower 48 Data Source: AWS Truepower 0-50nm; NREL WIND Toolkit beyond 50nm.
Hawaii Data Source: AWS Truepower 0-12nm; Vaisala/3Tier 12-50nm; linear extraction by NREL to 200nm.
NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Benefits for All of North Carolina

- Supply Chain
  - Special Initiative on Offshore Wind report - $70 billion supply chain CAPEX opportunity for 18 GW of planned development
  - BVG Associates - $140 billion by 2035
- Tourism
  - U of RI study - 19% increase in occupancy and $3,500 annual rental income increase from Block Island
- Ports
  - Diversification
  - Infrastructure investments
    - Ex: Baystate Wind & Connecticut - $93 million partnership

Why Now?

Competition for Investment

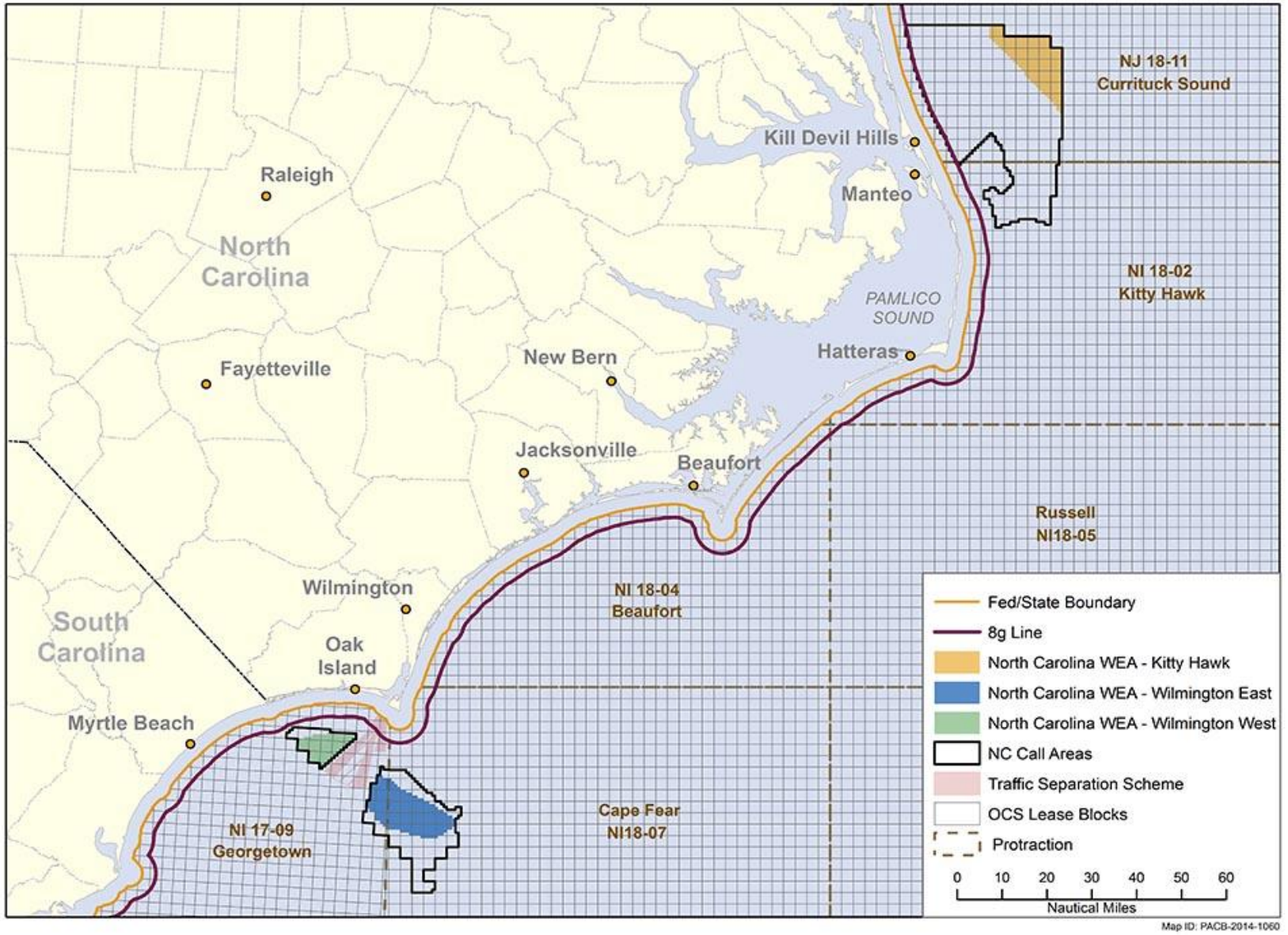
- Eastern seaboard states have identified this massive economic opportunity and are already setting aggressive goals to help secure the demand necessary to attract the manufacturing supply chain

  - New York – 9,000 MW
  - New Jersey – 7,500 MW
  - Massachusetts – 5,600 MW
  - Virginia – 5,200 MW
  - Connecticut – 2,000 MW
  - Maryland – 1,400 MW
  - Rhode Island – 400 MW

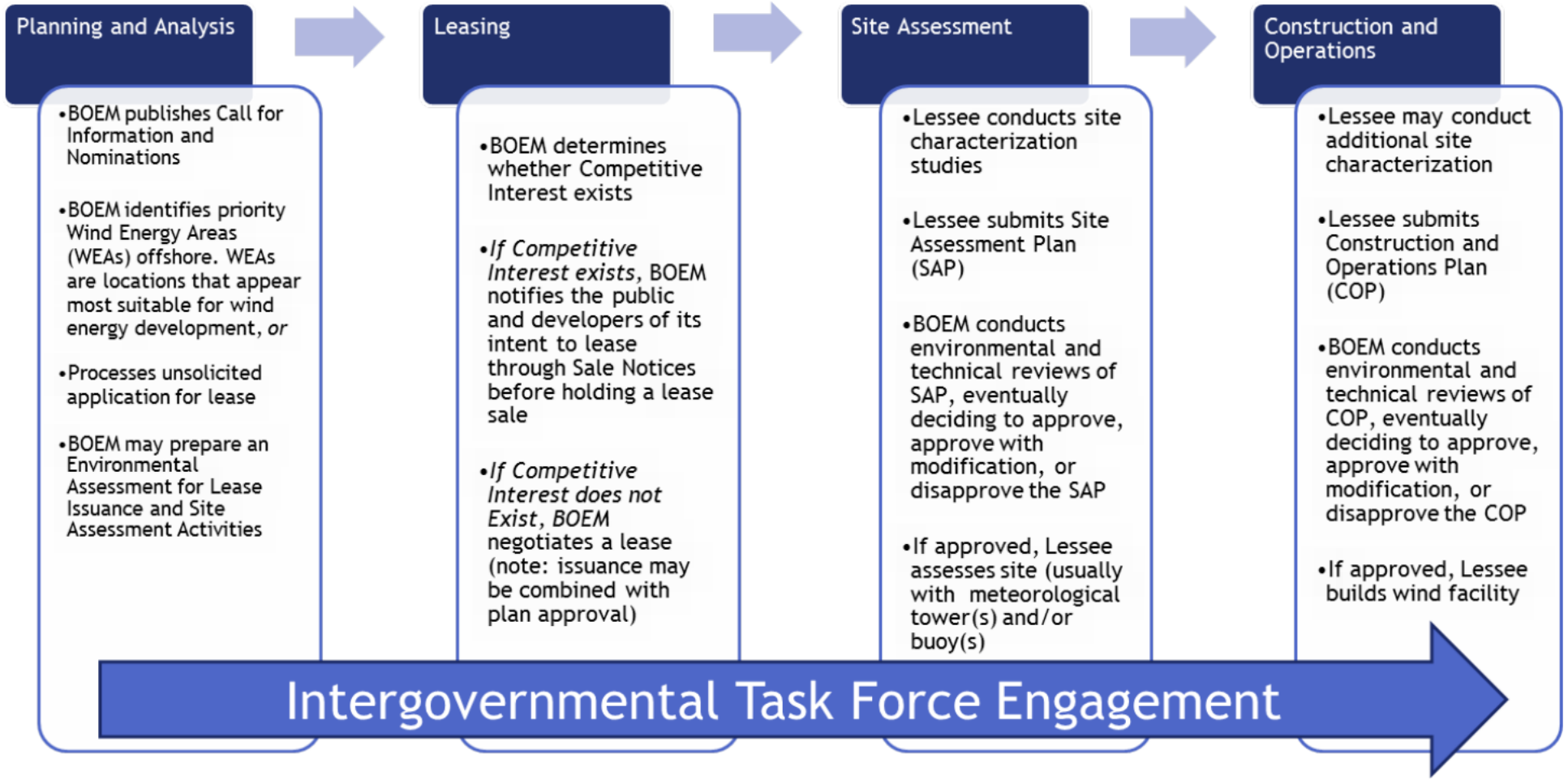
Kitty Hawk Wind Project

- Under development by Avangrid Renewables
  - 122,405 acres
  - Up to 2,500 MW
  - Enough to power up to 700,000 homes
  - Begins ~27 nautical miles offshore
- Construction & Operations Plan (COP) submitted to BOEM, anticipates $2 billion in economic impact and the creation of over 800 jobs for VA & NC

Wind Energy Areas (WEAs) - North Carolina

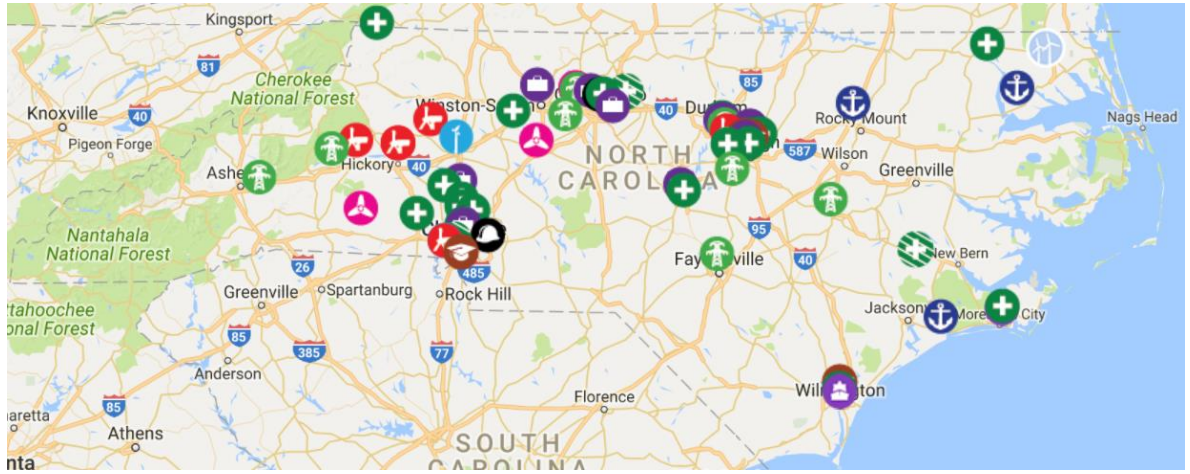


BOEM Lease Process



North Carolina's Advantage

- 1st in offshore wind resource potential on the east coast
- 55+ existing land-based wind supply chain companies
  - 1,062 jobs in wind energy in 2018
  - $440M in revenues from wind companies
- Largest manufacturing workforce in the Southeast
- Two deep-water ports with robust rail, road, and air infrastructure
- World-class university and community college system



Source: Southeastern Wind Coalition Supply Chain Asset Map

HUBBELL · NUCOR · HYDAC · SAERTEX · Southwire · comer industries · HAWE HYDRAULICS · ABB · AVANGRID RENEWABLES · AMERICAN ROLLER BEARINGS SINCE 1911

North Carolina Progress

- North Carolina Clean Energy Plan
- Offshore Wind Supply Chain & Infrastructure Study
  - Dept. of Commerce contracted with BVG Associates, NC State University, and others
- SMART-POWER Memorandum of Understanding (MOU)
  - Regional partnership with VA & MD
- First commercial-scale project sourcing onshore cabling from Southwire's N.C. facility
- NC leadership letters to BOEM
  - Governor Cooper – March 2021
  - Bipartisan group from NC congressional delegation – April 2021
- North Carolina Transmission Planning Collaborative (NCTPC)
  - Offshore wind transmission study to understand grid needs
- Duke Energy's Integrated Resource Plans (IRP)
  - Offshore wind included in multiple planning scenarios for the first time

N.C. Voters Support Offshore Wind

- More than seven in 10 N.C. voters support the development of offshore wind farms, and the necessary laws and regulation to promote future projects
- Nearly 90% of North Carolina voters say renewable energy is important to the state's future, and 77% agree the primary goal of North Carolina's energy policy should be achieving 100% clean energy

Offshore wind will be key to achieving this goal

Economic Potential by the Numbers

An analysis utilizing the National Renewable Energy Lab's economic modeling tool for a 2,400-megawatt offshore wind farm off the coast of North Carolina in 2030 demonstrates the significant **local** economic opportunity this industry presents

- During construction
  - 10,477 FTE jobs
  - $2.8 billion in economic output
- During operations
  - 723 annual FTE jobs
  - $4.5 billion in lifetime economic output

SOUTHEASTERN WIND COALITION

JAIME SIMMONS I PROGRAM MANAGER
jaimes@sewind.org

facebook.com/southeasternwindcoalition
@sewindco
linkedin.com/company/southeastern-wind-coalition