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Southern Alliance for
Clean Energy



Offshore Wind

Wind Powering America
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About Us

- **The Southern Alliance for Clean Energy (SACE) has been a leading voice for energy reform to protect the quality of life and treasured places in the Southeast for over 25 years. Founded in 1985, SACE is the only regional organization primarily focused on developing clean energy solutions throughout the Southeast.**
- **As we look towards the future, SACE's commitment to preserve, restore and protect our environment through the use of innovative technology, grassroots and grassroots education, and pioneer policy work remains steadfast.**



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Offshore Wind

- **Why Offshore?**
- **Why NOT Offshore?**
- **International Activities**
- **Domestic Activities**
- **NC case study**
- **Stakeholders**



Why Offshore?

- **Huge potential (4,000+ GW)**
- **High capacity factors (40%+)**
- **Close to population loads (fewer transmission lines)**
- **Few in-state renewable options**
- **Jobs, jobs, jobs**



Pacific NW
Class 5, 6 & 7

United States - Wind Resource Map



Gulf of Maine
Class 6

U.S. Department of Energy
National Renewable Energy Laboratory
23-JAN-2008 1.1.0

Great Lakes
Class 5 & 6

Mid-Atlantic
Class 5 & 6

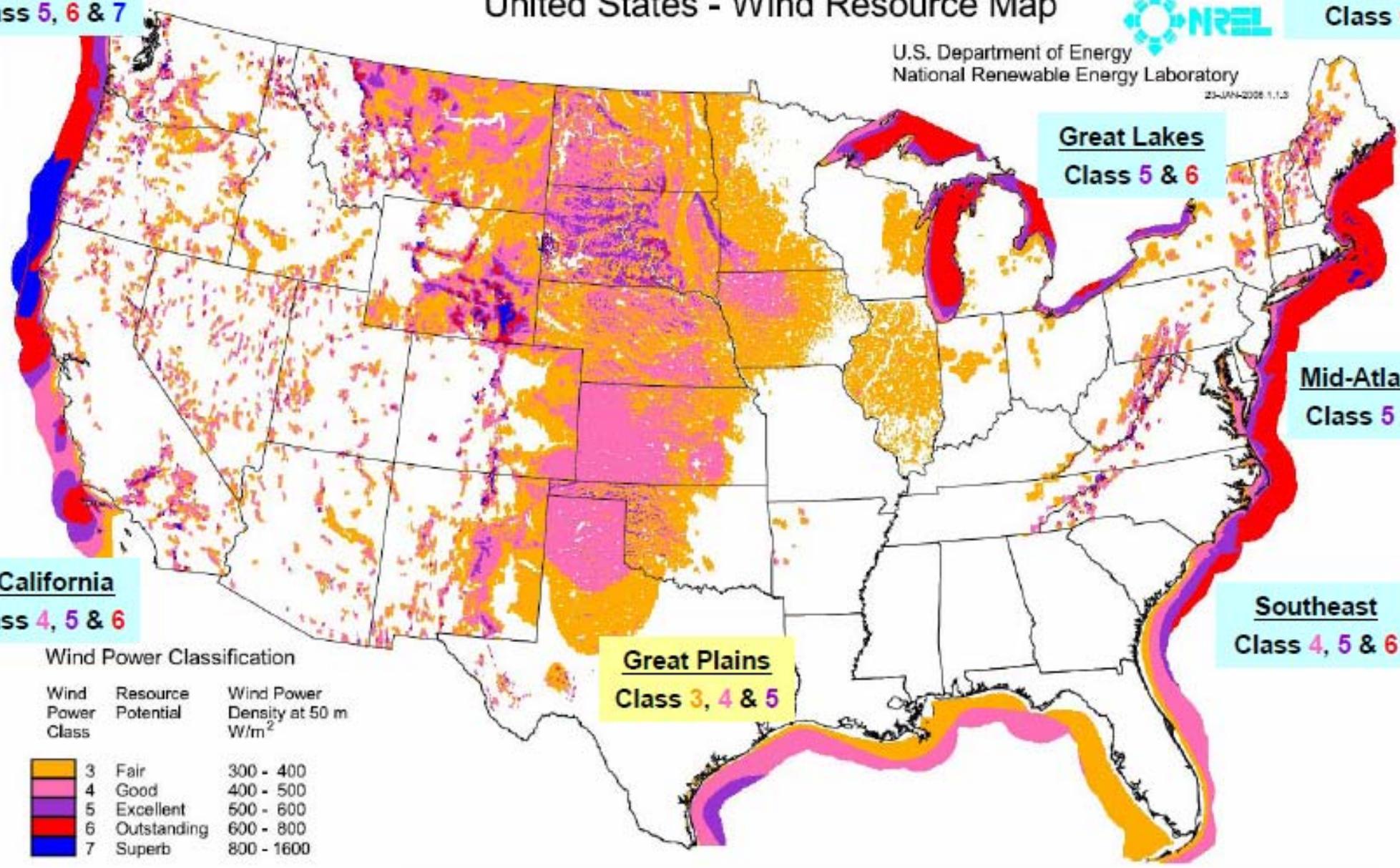
S California
Class 4, 5 & 6

Great Plains
Class 3, 4 & 5

Southeast
Class 4, 5 & 6

Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m^2
3	Fair	300 - 400
4	Good	400 - 500
5	Excellent	500 - 600
6	Outstanding	600 - 800
7	Superb	800 - 1600



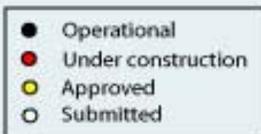
Why NOT Offshore?

- **Expense (10¢/kWh – 24¢/kWh)**
- **Long permitting (2 yr – 10 yr?)**
- **New technology (permanent magnet, floating turbines)**
- **Competing ocean uses (fisheries, tourism, military, aesthetics)**
- **Environmental concerns**



International Activities

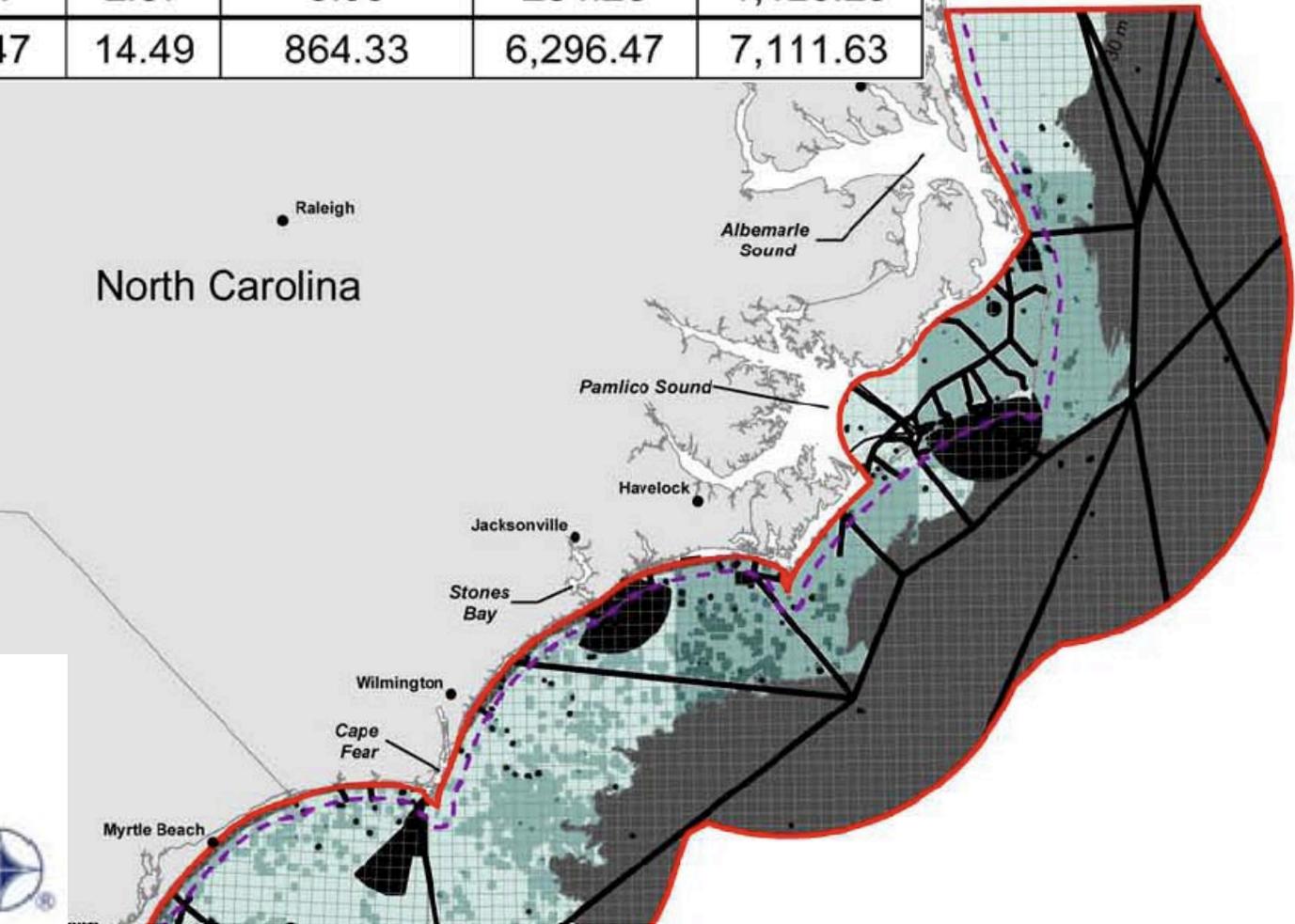
Offshore Wind Farms - Round 1



- 70 GW by 2017
- UK is leading
- Bigger & deeper
- Global market



	No build zones (mi ²)	Excluded Area (mi ²)	Intrusiveness			
			High (mi ²)	Moderate (mi ²)	Low (mi ²)	Lowest (mi ²)
North Carolina	3,272.44	11,587.56	8.78	418.65	3,689.64	3,244.62
South Carolina	2,338.10	4,563.14	2.84	441.88	2,352.58	2,740.78
Georgia	1,025.83	2,252.77	2.87	3.80	254.25	1,126.23
Total	6,636.37	18,403.47	14.49	864.33	6,296.47	7,111.63





Domestic Activities

- Aeronautica WindPower
- BOEMRE
- British Consulate General
- Center for a Sustainable Coast
- Clemson University
- Coastal Carolina University
- Coastal EMC Delong & Associates
- Dial Cordy & Associates
- Earth Comfort Company
- Enervision
- Energy Ace
- EPRI Solution
- FAA
- Georgia Department of Economic Development
- Georgia Department of Natural Resources
- Georgia EMC
- Georgia Environmental Finance Authority
- Georgia Power
- Georgia Public Service Commission
- Georgia Tech
- Georgia Transmission Corporation
- Greenpower EMC
- Municipal Electric Authority of Georgia
- NOAA
- Santee Cooper
- Savannah River National Lab
- SC Coastal Conservation League
- SC DHEC
- SC DNR
- SC Energy Office
- SCANA
- Sea Grant Consortium
- Sierra Club
- Skidaway Oceanographic Institute
- Soenso Energy
- Solairgen
- Southeast Power Administration
- Southern Alliance for Clean Energy
- Southern Company
- TJ Schell
- TradeWind Energy
- Tybee Island City Council
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. EPA
- University of Georgia
- University of South Carolina
- USFWS
- WECC

Questions?

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Working for a clean energy future



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