

OFFSHORE WIND ACCELERATOR PROJECT WEBINAR SERIES

Why Offshore Wind in the Southeast?



December 11, 2013

Housekeeping

- **All participants will be placed in “listen-only” mode when joining the webinar.** You will be connected to audio using your computer’s microphone and speakers (VoIP). Or you may select *Use Telephone* after joining the Webinar: Make sure to enter your phone Audio PIN, shown in the webinar control panel, if you choose the option to join by telephone.
- You are encouraged to type in questions regarding today’s presentations at any time during the webinar by entering your question in the **Question Box** on the webinar console. Questions will be answered as time allows following all of today’s presentations.
- This webinar is being recorded and will be made available after the call at www.cleanenergystates.org/webinars. Previous webinar recordings are also posted.

Today's Agenda

- Introduction by Val Stori, OWAP Project Director
- Presentation by Jen Banks, Southeastern Coastal Wind Coalition (jenb@secoastalwind.org)
- Presentation by Perrin Dargan, K&L Gates (perrin.dargan@klgates.com)
- Time for questions

Please Submit Questions

Questions submitted from webinar participants will be addressed following the presentation. Please type your questions in the webinar console's question box at any time during the broadcast.

Offshore Wind Accelerator Project

- **OWAP Objective:** Address key challenges facing offshore wind in five focus areas
- Work with individual States to assist with the development of strategic, long-term policies to advance offshore wind and develop a serious process to get to OSW scale in the U.S.
- Work on regional strategies with multiple states to increase opportunities for joint funding, networking and information sharing, joint procurement, supply chain and siting cooperation.
- Work on developing new finance tools and mechanisms, including buyers' networks and joint aggregated purchases, to provide the needed capital to scale up the offshore wind industry.
- Continue to communicate of ideas and policy developments between states and other stakeholders through OWAP.
- Work with leading European and UK policy makers to learn about the more established experience with offshore wind in those countries, and import that knowledge to US energy policy makers.

Stay connected to OWAP!

Val Stori, Project Director

val@cleanegroup.org

facebook.com/offshorewindworks

@OSWindWorks on Twitter

**Visit our website to read more about OWAP
and sign up for our e-newsletter:**

<http://www.cleanenergystates.org/projects/accelerating-offshore-wind-owap/>

www.cleanenergystates.org

www.cleanegroup.org

Thank you!



www.cleanenergystates.org
www.cleanenergygroup.org



*Why Offshore Wind in the Southeast

Jen Banks

Director of Operations

Southeastern Coastal Wind Coalition

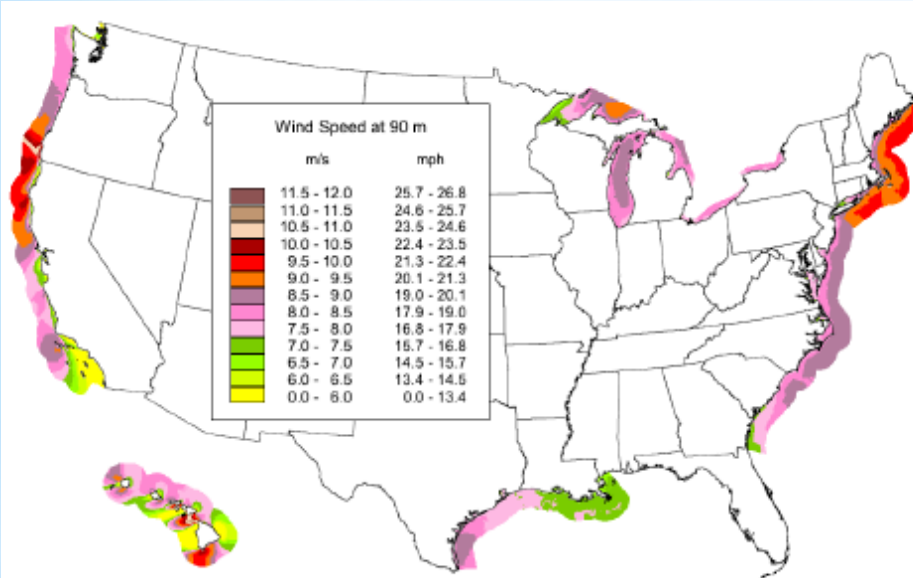
* Southeastern Coastal Wind Coalition

* *Mission: to advance the coastal and offshore wind industry in ways that result in net economic benefits to industry, utilities, ratepayers, and citizens of the Southeast.*

* *www.secoastalwind.org*

* Resource

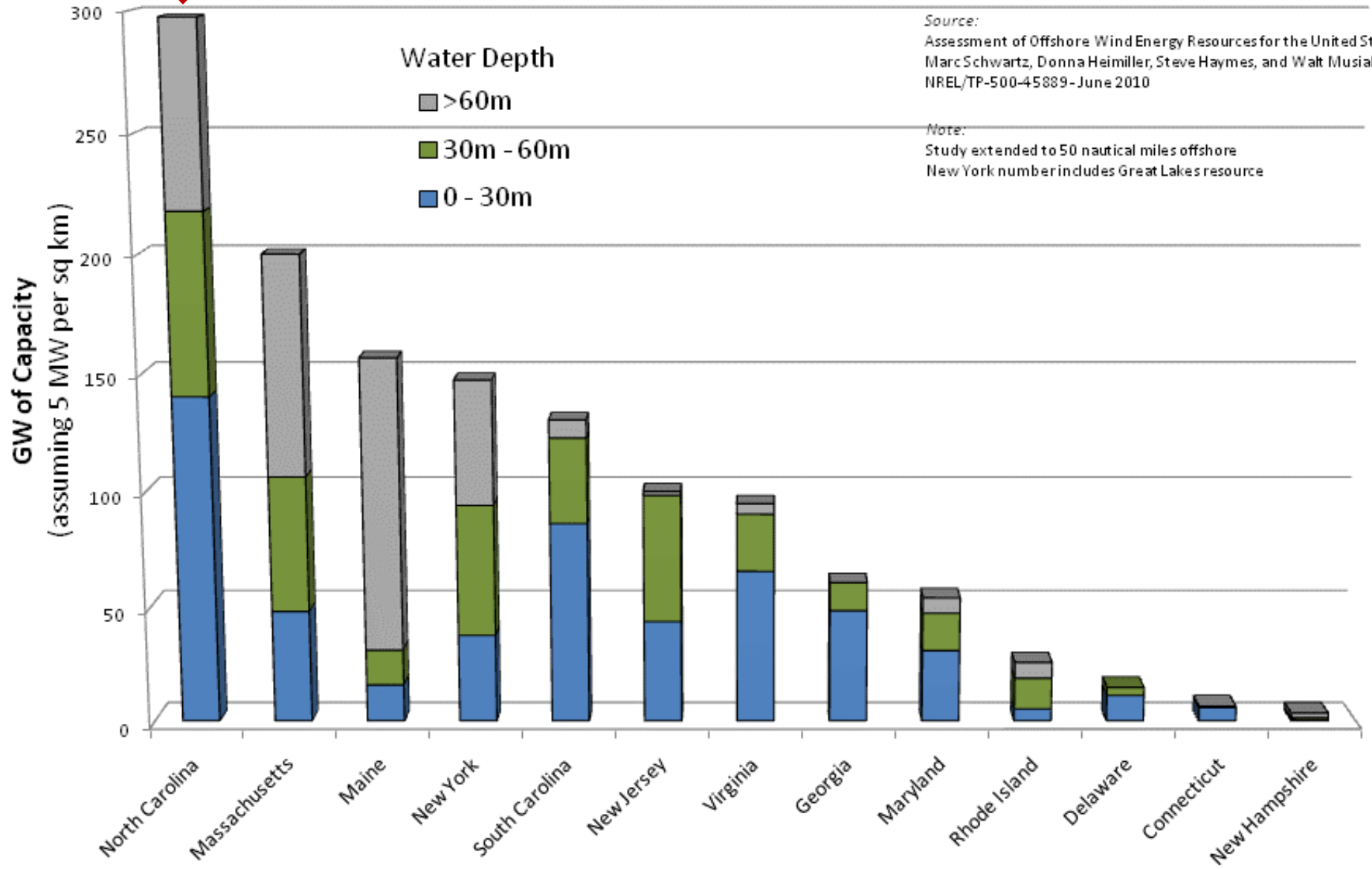
* U.S. Offshore Wind Resource at 90m



- VA - GA: 63% of East Coast shallow water resource

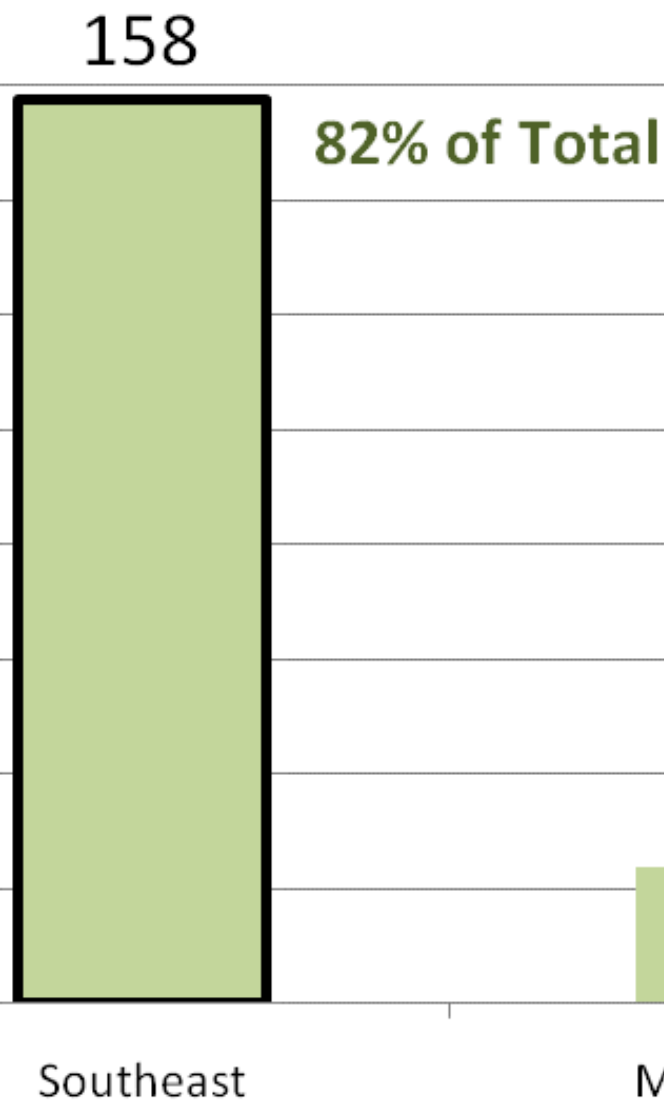
Source: NREL Assessment of offshore wind energy resources for the United States, 2010

Total Offshore Wind Resource (GW) East Coast States - All Water Depths



Offshore Wind Resource Potential

Gigawatts in <30m of Water and >12nm Offshore



Source:
Assessment of Offshore Wind Energy Resources for the United States
Marc Schwartz, Donna Heimiller, Steve Haymes, and Walt Musial
NREL/TP-500-45889-June 2010

Note:
Study extended to 50 nautical miles offshore
New York number includes Great Lakes resource

NOT EVERYONE WANTS TO SEE...



*Public Support for Wind

2013 NC Public Opinion Survey (commissioned by NCSEA):

Land-Based Wind Energy:

80.9% Support

13.1% Oppose

6.0% Unsure/no answer

Offshore Wind Energy:

75.8% Support

15.1% Oppose

9.1% Unsure/no answer

2012 Clemson University study of Myrtle Beach area:

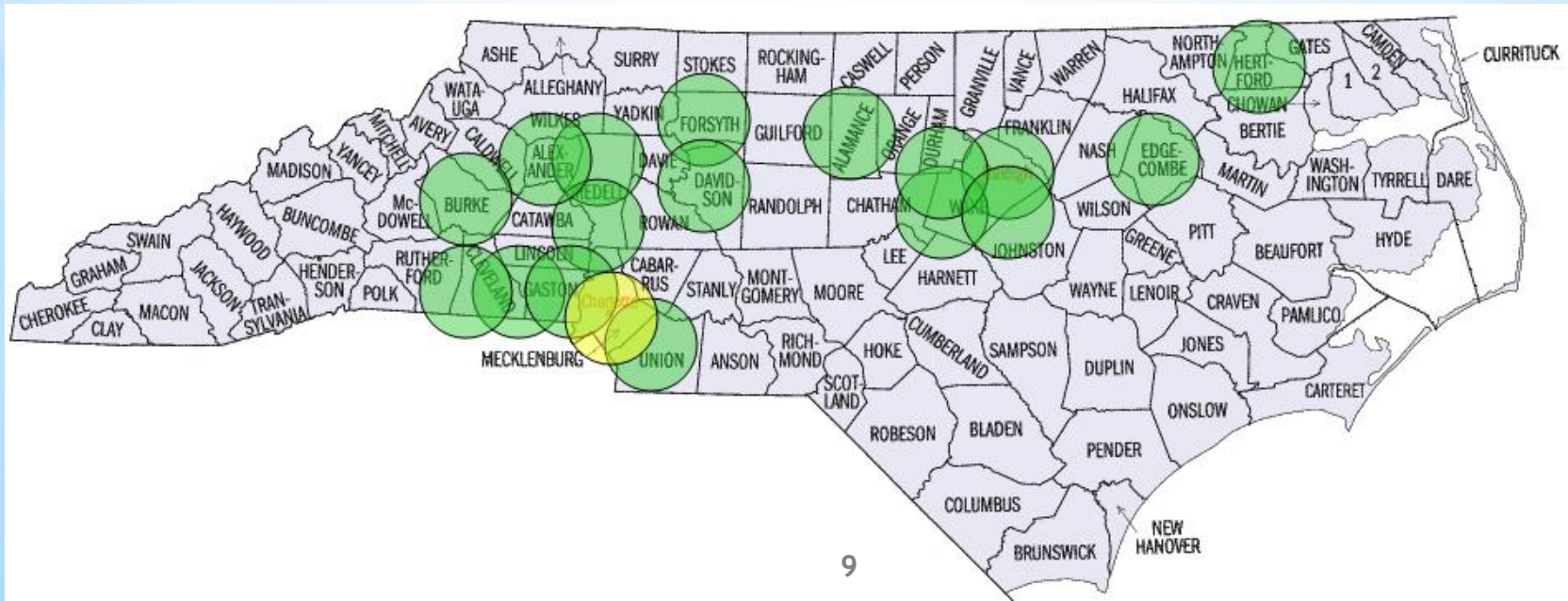
- Marine recreationists - over 70% of respondents showed support for offshore wind in the area.

*Political Support for Wind

- NC Governor McCrory support letter
- Local resolutions in support of offshore wind
- BOEM Task Forces in 3 states

* Land-Based Wind Supply Chain

- Over 60 facilities in SE
- 5000+ jobs in SE
- No utility scale wind
- Basis for offshore supply chain

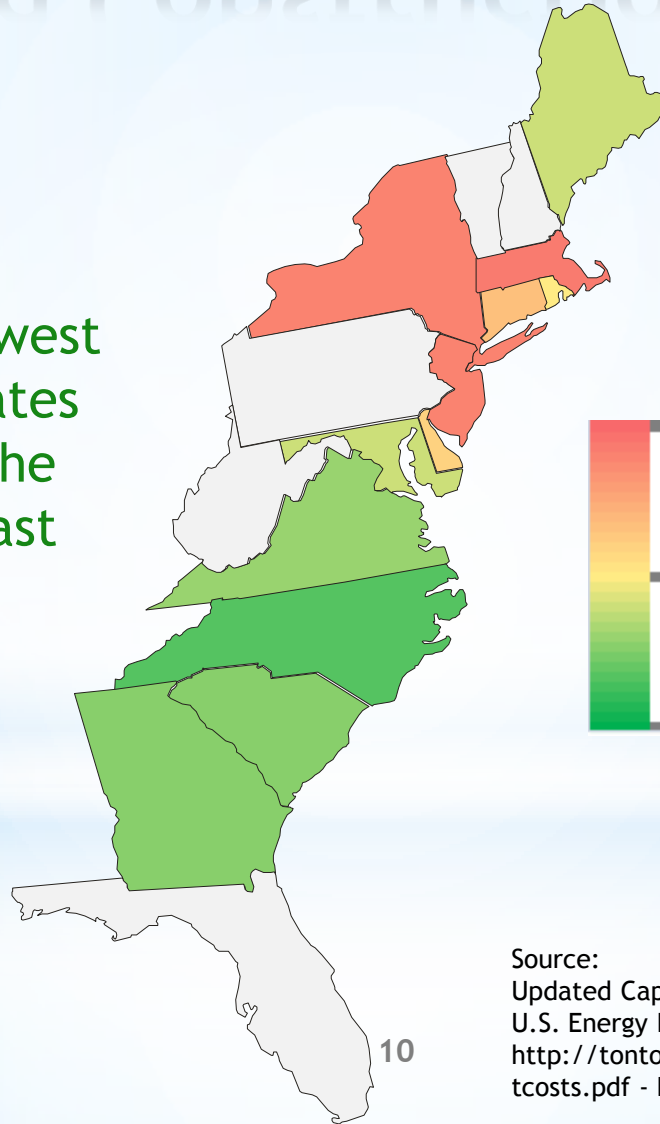


* Estimated Offshore Wind Construction Cost

Ranked:
Lowest to Highest

NC	-9.3%
GA	-7.0%
SC	-6.5%
VA	-5.7%
ME	-2.6%
MD	-2.1%
RI	+0.8%
DE	+3.1%
CT	+5.7%
NY	+12.7%
NJ	+12.7%
MA	+13.2%

Four lowest cost states are in the Southeast



15% Higher Cost

15% Lower Cost

Based on 400 MW wind farm with \$5,975/kW capital cost (2010\$)

Source:
Updated Capital Cost Estimates for Electricity Generation Plants,
U.S. Energy Information Administration, Nov 2010
http://tonto.eia.doe.gov/oiaf/beck_plantcosts/pdf/updatedplantcosts.pdf - Page 22-5 to 22-6

2010 Electricity Sales

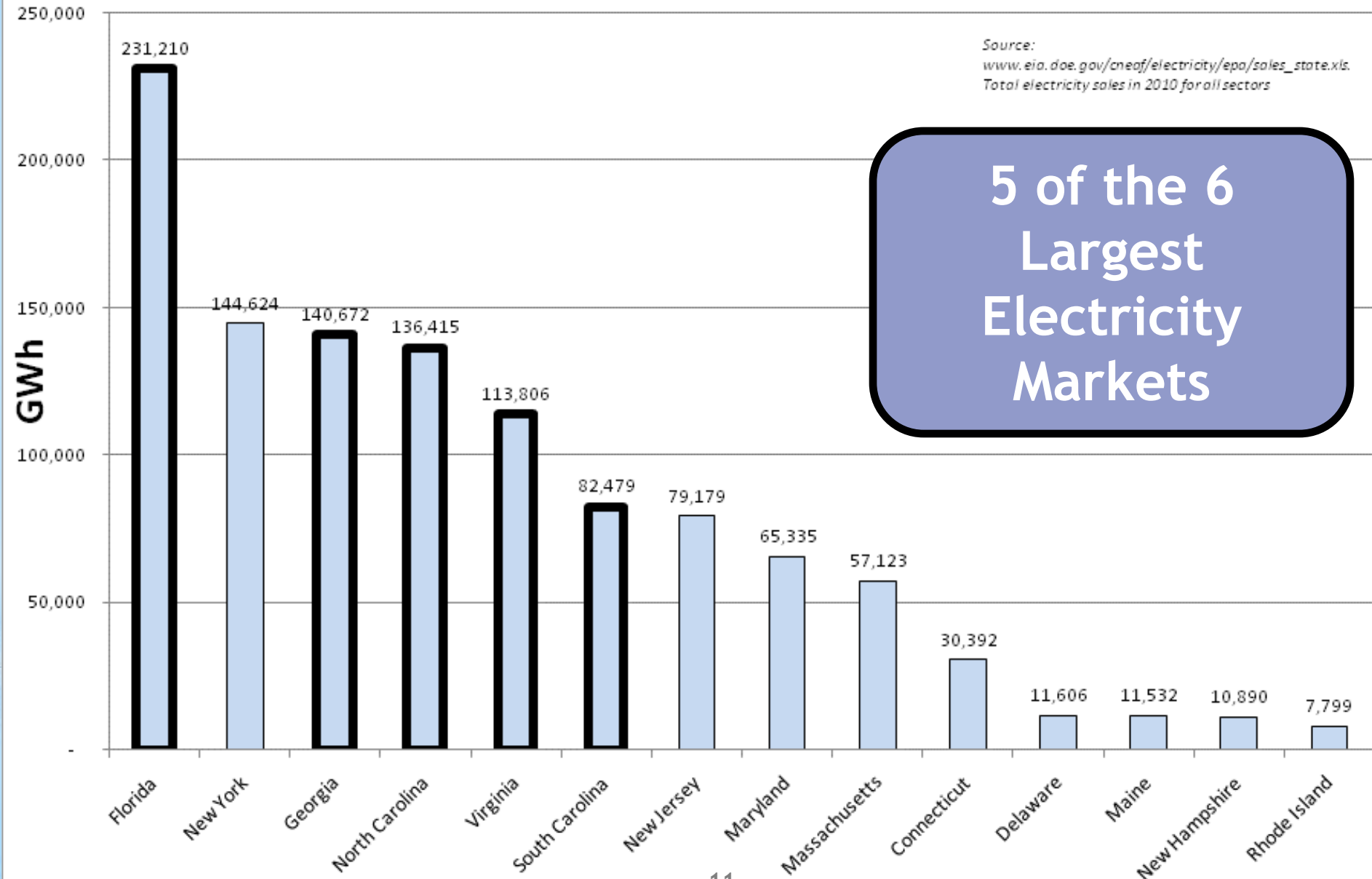
East Coast States

Source:

www.eia.doe.gov/cneaf/electricity/epo/sales_state.xls

Total electricity sales in 2010 for all sectors

5 of the 6
Largest
Electricity
Markets



*Thank You.



Jen Banks
jenb@secoastalwind.org



Utility Regulation and Offshore Wind: Opportunities and Obstacles for the Southeast

Clean Energy Group/Clean Energy States Alliance Webinar
December 11, 2013
Perrin Dargan, Of Counsel, K&L Gates LLP

OVERVIEW OF UTILITY STRUCTURE

Traditional Regulatory Model

- Utilized in the Southeast, Southwest, Northwest
- Vertically-integrated utilities
- Utility controls generation, transmission and distribution
- Rates based on cost of service plus allowed return, all as set by the relevant regulatory commission (Public Service Commission in SC; Utilities Commission in NC; State Corporation Commission in VA)

OVERVIEW OF UTILITY STRUCTURE

Wholesale/Organized Markets

- Utilized in the Northeast, Mid-Atlantic and California
- Markets organized under an independent system operator (ISO) or regional transmission organization (RTO)
- ISO/RTO is an independent entity that has operational control of the transmission systems and operates a wholesale market for energy sales in the region

ELECTRICITY GENERATION

Owned Assets Approach:

- Utility owns and develops the generation source
- Utility rolls the development costs into its services rates
- Predominant approach in markets where vertically-integrated utilities dominate, although utility-owned generation occurs in wholesale markets as well

ELECTRICITY GENERATION

Independent Developer Approach:

- Private developer finances and develops the generation source
- Developer enters a long-term power purchase agreement (PPAs) with a utility whereby the utility buys the power generated from the developer
- More popular in wholesale markets and markets where state policy otherwise encourages private development

ELECTRICITY GENERATION

Hybrid Approach:

- A mix of utility owned assets and the use of PPAs by utilities to procure energy
- Whether a market relies on owned assets, PPAs or a mix is ultimately a function of state policy
- For example, California is an organized market but state policy permits generation ownership by utilities

SOUTHEAST APPROACH

- Regulatory structure in the Southeast does not strongly incentivize utilities to enter PPAs
- More likely to see some utility ownership of generation and involvement in the development of offshore wind projects
- Utility ownership of offshore wind farms offers both benefits and challenges

BENEFITS OF UTILITY OWNERSHIP

- Existence of similar regulatory environments in southeastern states creates potential for coordination of large-scale regional development plans for offshore wind
- Creates economies of scale and cost reduction
- Offers long-term, more predictable development plans

OBSTACLES TO UTILITY OWNERSHIP

- High CAPEX costs associated with the planning, construction and development of offshore wind installations
- Lack of state policy and regulatory incentives
- Uncertainty of regulatory landscape (e.g. federal production tax credit)

PROSPECTIVE INCENTIVES

- Nuclear cost recovery model
 - permits utility to recover from ratepayers partial development costs before project completion

- Tax incentives
 - renewal of federal production tax credit
 - extension of federal investment tax credit to offshore wind
 - state tax incentives

- Renewable energy portfolio standards
 - mandatory in NC
 - voluntary in VA

REGULATORY CHANGES ARE NECESSARY

- 5 Necessary Preconditions to Offshore Wind:
 - 1. Political Buy-In
 - 2. Favorable Economics
 - 3. Availability of Finance
 - 4. Manageable Risk
 - 5. Proven Technology

POLITICAL BUY-IN

- Uniformly, deployment of expensive, new technologies will occur only where political signals remain consistently encouraging for a number of years.

CONTACT DETAILS

Perrin Dargan

Of Counsel

K&L Gates LLP

134 Meeting Street, Ste. 200

Charleston, SC 29401

Phone: +1 843.579.5637

Fax: +1 843.579.5601

perrin.dargan@klgates.com

Lindsey A. Greer

Associate

K&L Gates LLP

134 Meeting Street, Ste. 200

Charleston, SC 29401

Phone: +1 843.579.5641

Fax: +1 843.579.5601

lindsey.greer@klgates.com