East Coast Offshore Wind

American Association of Port Authorities
Energy and Environment Seminar
East Coast Advantage

• Relatively shallow waters along gulf and mid-Atlantic are attractive for offshore wind using currently proven wind turbine technology
  • Deeper water on west coast requires floating technology, which needs more R&D before utility scale deployment

• High wind speeds along northeast Atlantic coast
• Excellent land based staging areas for construction
• Excellent land based maintenance and operation support
• Close to energy demand
Offshore Wind Speeds and Siting

- Offshore wind speeds rival the best land-based wind speeds.
- Can site power supply near the huge demand of east coast cities.
- Siting turbines 12+ miles from the coast ensure no/low visibility from shore.
Status of East Coast Project Development

• BOEM is the lead regulatory authority

• BOEM has issued 11 leases on the Easy Coast, with another lease sale expected for New York before the end of 2016

• No projects built in the US yet – over 25 projects in Europe operational, with the first project commissioned in 1991 – the US is far behind!
East Coast Offshore Wind Leases

Atlantic OCS Renewable Energy - Massachusetts to Florida

- Fed/State Boundary
- USCG TSS
- New York WEA
- Virginia Lease OCS-A 0483
- Virginia Lease OCS-A 0497
- NJ Lease OCS-A 0499
- NJ Lease OCS-A 0498
- Delaware Lease OCS-A 0482
- Maryland Lease OCS-A 0489
- Maryland Lease OCS-A 0490
- North Carolina WEA

- Fed/State Boundary
- USCG TSS
- North Carolina WEAs
- South Carolina Offshore Areas
- Georgia Proposed Lease
- FAU Lease OCS-A 0496
Offshore wind developers to use largely empty New Bedford terminal

- Three offshore wind developers agreed to use terminal and port facility for their projects in the region
  - Deepwater Wind
  - Offshore MW
  - DONG Energy
- Developers agreed to pay $5.7M/yr to the Mass Clean Energy Center to use the 26-acre terminal as a staging ground for offshore construction
• Offshore wind turbines are so large they cannot be transported over roadways

• Ports have the opportunity for significant economic development from offshore wind

• **Offshore wind needs ports and ports need offshore wind!**
Block Island Wind Farm

- Five 6MW turbines 3 miles from the coast of Block Island, Rhode Island
- Project developer – Deepwater Wind
- To be operational by end of 2016
- Significant activity for project at ProvPort
- First OSW project in the United States
• Stakeholder outreach is vital to offshore wind projects
• Famed and faltered Cape Wind Project suffered due to lack of early stakeholder outreach
• Project proponent, supply chain, ports, NGOs, Tribes – all interested parties need to be engaged early and often to ensure project success
Coast Guard Proposed Offshore Wind Guidance

- Coast Guard Atlantic Coast Port Access Route Study (March 2016)
- Recommended offshore wind projects be at least two nautical miles away from shipping lanes
- Recommended five nautical miles from port access areas
- Would significantly cut into the 22 gigawatts (GW) of offshore wind the DOE estimated could be deployed in the U.S. by 2030
- New York Port Authority has indicated the buffer zones could eliminate half of the 81,000 acres BOEM proposes to lease off the coast of New York
- Deepwater Wind LLC, has warned the setbacks could eliminate 20% of the North Lease area offshore Rhode Island and Massachusetts
- The Coast Guard is rethinking their guidance
In Summary

• Offshore wind will play a significant role in helping the US reach its clean energy goals and energy demands.

• Offshore wind is an established technology in Europe with over 25 wind farms in operation and a dozen more in development in 2016.

• Ports play a critical role in the development of the industry and should ready themselves for an influx of projects over the next decade and beyond.

• Offshore wind turbines are so large they cannot be transported by over roadways – offshore wind needs ports, and ports need offshore wind!
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