



NORTH CAROLINA PORTS

Governor's Scientific Advisory Panel on Offshore Energy

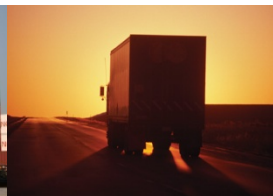
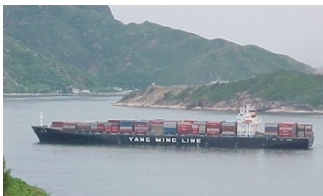
Glenn Carlson
Chief Commercial Officer

February 22, 2011



Agenda

- Introduction and Background
- Port Support Requirements
- Port of Morehead City Capabilities

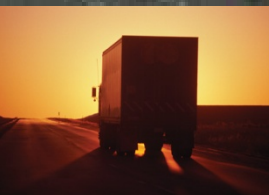
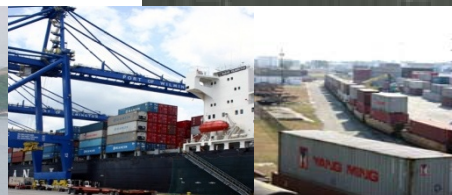


Importance of the Port

- Virtually every state on the east coast of the US is considering offshore wind farms as a means of generating clean, renewable energy.
- The location, layout and operation of the ports to construct and maintain the wind farms will be a critical step in the logistical and financial success of the wind farms.



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Port Support Requirements



- Turbine Outfitting and Deployment
- Foundation Construction and Deployment
- Maintenance – both General and Major Repairs

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Port Support Requirements

- Moderate Channel Depths
- Minimal Overhead and Horizontal Clearances
- Easy Open Water Access



Port Support Requirements

- 20+ acres for laydown
- 400 feet minimum berth
- Warehouse(s)
- Material Handling Equipment
- Truck Access







Tower Components

Component	Weight (tons)	Dimensions (ft.)
Monopile	165 to 250	15 dia. X 200
Transition Piece	+150	15 dia. X 50
Nacelle	130 to 170	12 x 10 x 48
Blade	14 to 20	180
Tower Section	75	14 dia. X 100











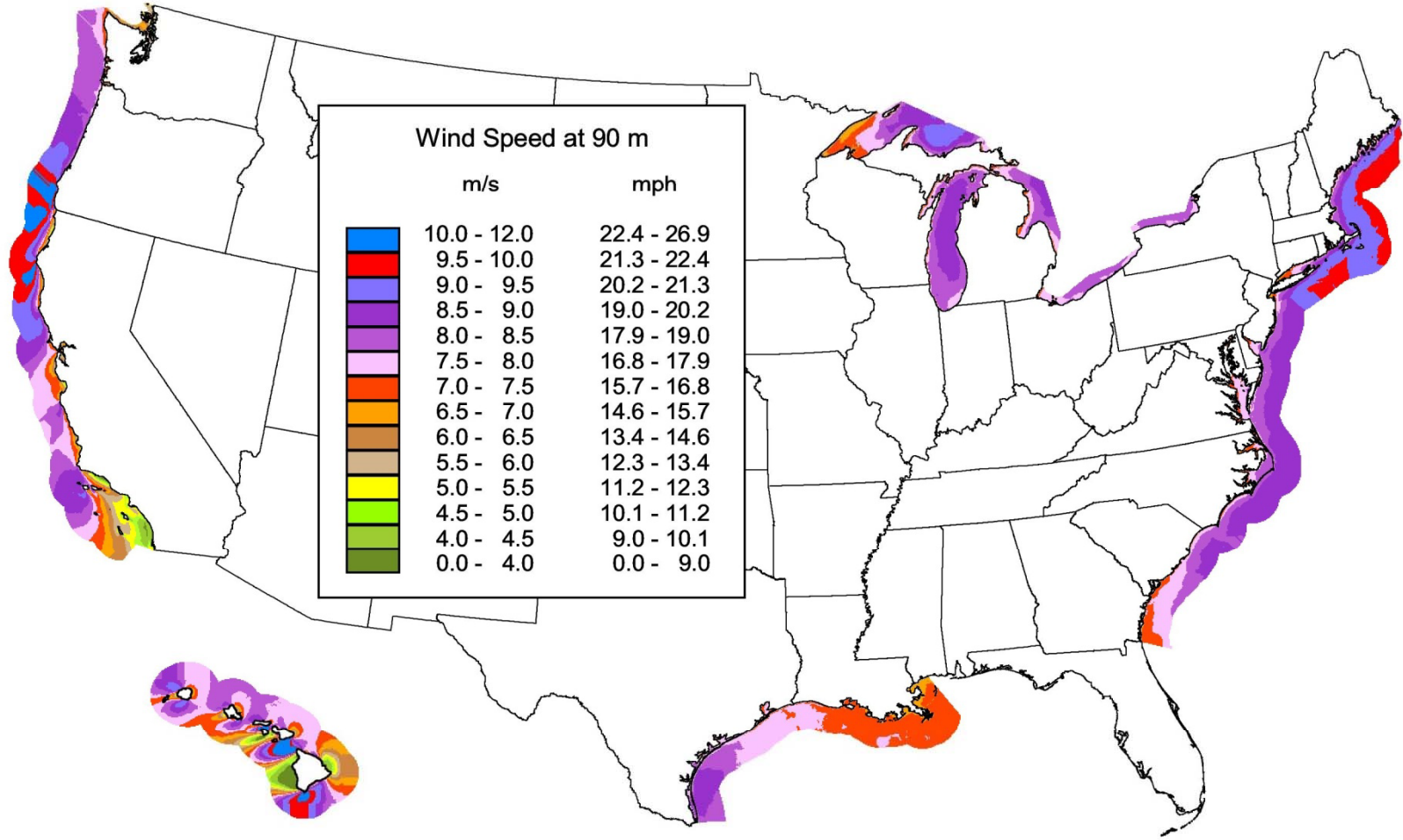
Port of Morehead City

- One of the deepest ports on the U.S. East Coast
- Located just four miles from the Atlantic Ocean
- Handles both breakbulk and bulk cargo
- 12 Acres of Laydown Area and 5 acres for Staging of Equipment
- Maximum Lift Capacity -100 tons
- World Class Facility - Radio Island



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U.S. Department of Energy
National Renewable Energy Laboratory



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Morehead City – August 2010



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“The Port of Morehead City demonstrated excellent capabilities in handling these wind energy components. The staff was extremely helpful in making the entire operation run smoothly from start to finish,” said John Riggs, Director of Business Development, Northern States Transportation.

Thank You

