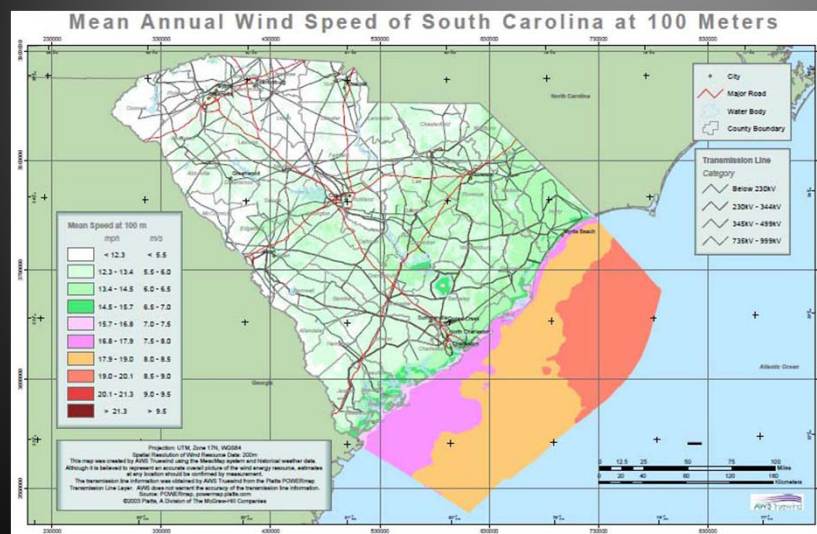


Overview of SC Offshore Wind Energy Initiatives



SC BOEM Offshore Renewable Energy Task Force
March 29, 2012
Catherine Vanden Houten
South Carolina Energy Office



DOE Wind Grant

DOE Wind Grant

- ▶ 2008
- ▶ U.S. Department of Energy
- ▶ SC Roadmap to Gigawatt-Scale Coastal Clean Energy Generation: Transmission, Regulation & Demonstration

DOE Wind Grant

Project partners:

- ▶ SC Energy Office
- ▶ Santee Cooper
- ▶ Coastal Carolina University
- ▶ Clemson University
- ▶ Savannah River National Lab
- ▶ NC State University

DOE Wind Grant

- ▶ Goal: to overcome existing barriers for coastal clean energy development for wind, wave and tidal energy projects in South Carolina.

DOE Wind Grant

- 1: offshore wind transmission study
- 2: wind, wave & current study
- 3: Regulatory Task Force for Coastal Clean Energy



Regulatory Task Force

Mission:

- ▶ to create a regulatory environment conducive to wind, wave and tidal energy development in state waters

Regulatory Task Force

- ▶ U.S. Army Corps of Engineers
- ▶ U.S. Coast Guard
- ▶ U.S. Environmental Protection Agency
- ▶ U.S. Fish & Wildlife Service
- ▶ Minerals Management Service
- ▶ National Marine Fisheries Service, NOAA
- ▶ Federal Aviation Administration
- ▶ S.C. DHEC, Bureau of Water
- ▶ S.C. DHEC, Office of Coastal Resource Management
- ▶ S.C. Department of Archives & History
- ▶ S.C. Department of Natural Resources
- ▶ S.C. Office of Regulatory Staff

Regulatory Task Force

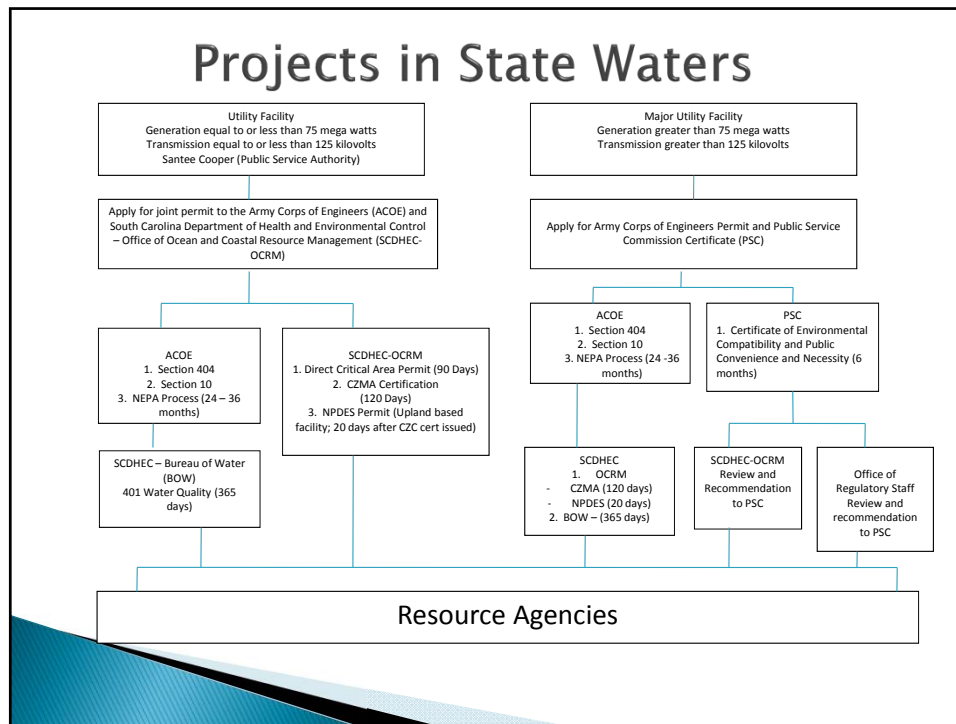
- ▶ Clemson University Restoration Institute
- ▶ Coastal Carolina University
- ▶ EcoEnergy, LLC
- ▶ North Carolina State University
- ▶ Research Planning, Inc.
- ▶ SCANA
- ▶ Santee Cooper
- ▶ Savannah River Ecology Lab
- ▶ Southern Environmental Law Center
- ▶ S.C. Coastal Conservation League
- ▶ S.C. Sea Grant Consortium
- ▶ University of South Carolina, Marine Science Program
- ▶ University of South Carolina, School of the Environment

Objectives

- ▶ Identify lead permitting authorities
- ▶ Identify timeframes associated with regulatory permitting
- ▶ Identify regulatory gaps

Resource Agencies

- ▶ Federal Aviation
- ▶ Environmental Protection Agency
- ▶ Advisory Council on Historic Preservation
- ▶ U.S. Department of Defense
- ▶ U.S. Coast Guard
- ▶ U.S. Fish and Wildlife Service
- ▶ Department of Energy
- ▶ Army Corps of Engineers
- ▶ Mineral Management Services
- ▶ National Oceanic and Atmospheric Administration
- ▶ Federal Energy Regulatory Commission
- ▶ South Carolina Department of Health and Environmental Control
 - Environmental Quality Control
 - Office of Ocean and Coastal Resource Management
- ▶ South Carolina Department of Natural Resources
- ▶ South Carolina Public Service Commission
- ▶ Office of Regulatory Staff
- ▶ South Carolina Department of Transportation
- ▶ State Historic Preservation Office
- ▶ South Carolina Institute of Archaeology and Anthropology



Workshop on Offshore Wind Energy Development

- ▶ March 24-25, 2010
- ▶ Marine Resources Research Institute, Ft. Johnson

- ▶ SC Energy Office, SCDNR, SCDHEC-OCRM, Sea Grant Consortium

- ▶ City of Charleston, SCANA, GE Energy, Research Planning, Incorporated, Pacific Energy Ventures

Workshop on Offshore Wind Energy Development

Highlights:

- ▶ Mayor Joe Riley
- ▶ State of the State
- ▶ Texas experience
- ▶ Massachusetts experience
- ▶ Consultant perspective
- ▶ US Military perspective
- ▶ Onshore implications of ocean energy development

Wind Farm Feasibility Study Committee

Wind Farm Feasibility Study Committee

- Senator Paul Campbell, Jr. - Chair
- Senator C. Bradley Hutto
- Senator Daniel B. Verdin, III
- Representative Paul Agnew
- Representative McLain "Mac" Toole
- Representative Nelson Hardwick
- Commissioner Earl Hunter
- Mr. Roger Schonewald
- Mr. Robert Leitner
- Mr. Hamilton Davis
- Mr. John Boyd

Wind Farm Feasibility Study Committee

Topics

- Wind research
- Economic impacts
- Environmental impacts
- Public comment
- Recommendations

Wind Farm Feasibility Study Committee

Final report

- ▶ Executive Summary
- ▶ Recommendations



Wind Farm Feasibility Study Committee

Key Recommendations

- Need for a clean energy policy

Wind Farm Feasibility Study Committee

Key Recommendations

- Need for leasing framework



Wind Farm Feasibility Study Committee

Key Recommendations

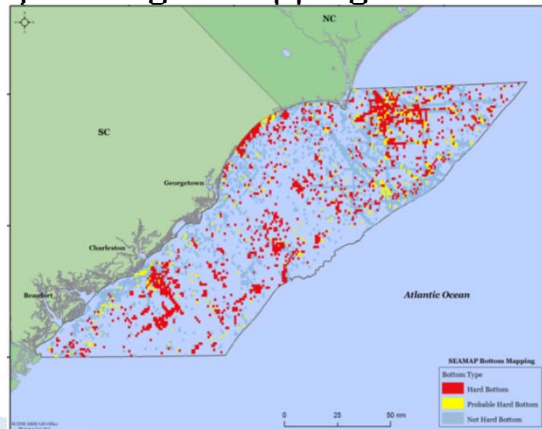
- Need for one-stop shop



Wind Farm Feasibility Study Committee

Key Recommendations

- Need for ocean planning & mapping



Additional Accomplishments

Additional Accomplishments

Leasing Framework

SCDNR Spatial Mapping Project

Economic Impact Study

Economic Impact Study

- ▶ Clemson University Restoration Institute & Strom Thurmond Institute
- ▶ Remaining DOE Coastal Clean Energy grant funds
- ▶ Through June 2012

- ▶ Three components:
 - Offshore Wind Farm Construction/O&M Model
 - Manufacturer Survey
 - Supply Chain Model

Wind Powering America Grant

- Market Acceptance
- Southern Alliance for Clean Energy
- Public Forums & Outreach



Public Opinion Research

- ▶ 2011 Survey of marine recreationists' attitudes towards potential offshore wind energy in South Carolina
- ▶ Brownlee, Hallo & Jodice
- ▶ Clemson University Department of Parks, Recreation, and Tourism Management
- ▶ January 2012

Other Wind Efforts

- ▶ Clemson University Restoration Institute
- ▶ North Strand Coastal Wind Team



Next Steps

- ▶ Results of Economic Study
- ▶ DOE's Funding Opportunity for Demonstration Project



www.energy.sc.gov

