Actions Taken by the State of South Carolina in Support of Offshore Renewable Energy Development

BOEM recognizes the importance of the steps that the State of South Carolina has taken to encourage environmentally sound offshore wind energy development. While a state may promote such development, BOEM has the exclusive authority to issue leases, easements, and ROWs on the OCS for renewable energy purposes. While fully cognizant of the distinction between State and Federal responsibilities, South Carolina has undertaken a number of activities to prepare for eventual off-shore wind development.

As early as 2005, the South Carolina Energy Office and Santee Cooper, the state's public utility, produced a comprehensive set of wind maps across the state. The study, conducted by AWS Truewind, assessed the state's wind resource and concluded that winds sufficient for economic wind energy generation are sustained off the South Carolina coast.

In late 2008, the South Carolina General Assembly passed Act 318 to create the Wind Energy Production Farms Feasibility Study Committee (Committee). The purpose of this Committee was to review, study and make recommendations regarding the feasibility of wind farms in the state. The focus of the Committee included, but was not limited to, whether South Carolina is a suitable site for wind production on land or in offshore areas, the economic and environmental impact to the state and the cost of wind farm installation and operation in the state. Committee members included elected officials and other leaders knowledgeable about wind energy. The Committee was staffed by the SC Energy Office.

Also in 2008 the state, with multiple partners, obtained a DOE grant entitled *The South Carolina Roadmap to Gigawatt-Scale Coastal Clean Energy Generation: Transmission, Regulation & Demonstration*. The goal of the grant is to identify and overcome existing barriers for coastal clean energy development for wind, wave and tidal energy projects in South Carolina. Efforts included in the grant include an offshore wind transmission study; a wind, wave & current study; and a comprehensive spatial database on existing resources and activities.

The grant also established the Regulatory Task Force, to foster a regulatory environment conducive to wind, wave and tidal energy development in state waters. The Regulatory Task Force is composed of the full spectrum of state and federal regulatory and resource protection agencies, universities, private industry and utility companies. The Task Force was established in April 2009 and has held regular meetings since that time. Although some members were also asked to serve on the BOEM task force when it was created, most Regulatory Task Force members have direct regulatory responsibilities.

In 2009 the state, in partnership with the Southern Alliance for Clean Energy (SACE) received a Market Acceptance grant from the U.S. Department of Energy's Wind Powering America program. Through this effort, a series of public forums and community leader meetings was conducted at various key locations throughout both states

The Clemson University Restoration Institute and its partners received a $45 million grant from the U.S. Department of Energy, combined with $53 million of matching funds, to build and

operate a large-scale wind turbine drive train testing facility at the institute's research campus on the former Navy base in Charleston. This facility is capable of full-scale advanced testing of drive train systems, full nacelles, and simulation of blade forces. The facility contains two test beds, a 7.5 megawatt and 15 megawatt, with dynamic non-torque loading. Capable of 50Hz or 60Hz testing, the facility can test for any unit bound for anywhere in the world.

The SC Energy Office used Department of Energy funds to contract with Clemson University to conduct two economic studies of the impact of a pilot scale wind farm on the state's economy and utility rates.

At the local government level, several communities have passed resolutions related to wind energy (both supporting and expressing concerns.) The North Strand Coastal Wind Team was established as a collaborative partnership with North Myrtle Beach Chamber of Commerce, Coastal Carolina University, Savannah River National Lab, Myrtle Beach Regional Economic Development Authority, and the South Carolina Energy Office. The City of North Myrtle Beach passed an ordinance allowing installation of vertical axis turbines, and has installed several in strategic locations along the beachfront. While not directly offshore wind, this is significant in that it demonstrated the community's strong support for wind energy development.

Most recently, the state joined with BOEM to create a cooperative research agreement coordinated by the SC Sea Grant Consortium and engaging researchers from Coastal Carolina University, the University of South Carolina and the College of Charleston.