



News from the Savannah River National Laboratory

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SRNL and Partners Earn Grant for Wind Energy Research

AIKEN, SC – (September 21, 2011) -- The Savannah River National Laboratory has been awarded a \$700,000 grant to conduct research into the design conditions for offshore wind energy structures.

The funding comes from the Department of Energy's Office of Energy Efficiency and Renewable Energy. It is one of a series of grants intended to help the U.S. compete in the global wind energy manufacturing sector, promote economic development and support the development of an emerging industry that will provide clean electricity.

The research objective of the SRNL project is to develop new methods for determining the design basis of offshore structures for the outer continental shelf on the Atlantic seaboard. The Atlantic environment presents unique design challenges related to breaking waves in the relatively shallow water, and the occurrence of tropical cyclones. The research will use state-of-the-art models to identify areas susceptible to breaking waves that produce slam loading on structures; buoys equipped with innovative sensors for measuring the load from breaking waves will be deployed to validate the models and test new sensors.

The study area ranges from Cape Hatteras, North Carolina to West Palm Beach, Florida. Estimates indicate that this area has a potential 134 gigawatt wind resource in water less than 30 meters deep, representing approximately 25 percent of the potential for the entire east coast in water of similar depth.

"North Carolina and South Carolina have the largest offshore wind energy in shallow water on the Atlantic seaboard," said Ralph Nichols, SRNL's principal researcher on the project. "This is a significant underutilized resource. We look forward to continuing to work with other partners to create the conditions that can develop this resource in a sound, responsible way."

The research will take place over the next three years. SRNL's research partners include Coastal Carolina University; DOE's National Renewable Energy Laboratory; and MMI Engineering.

SRNL is DOE's applied research and development national laboratory located at the Savannah River Site. SRNL puts science to work to support DOE and the nation in the areas of environmental stewardship, national and homeland security, and clean energy. The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC.

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