

Wind energy companies test waters for offshore projects

June 24 2009, By Renee Schoof

The federal government on Tuesday issued its first exploratory leases for wind energy projects on the Outer Continental Shelf, the first step of what could be a race to harness the powerful Atlantic winds not far from major population centers on the East Coast.

The leases will allow wind companies to build testing stations on federal land off the New Jersey and Delaware coasts. Research already has shown that the Northeast has relatively shallow water and few strong hurricanes, which make it a good candidate for existing offshore wind technology.

The U.S. so far produces no electricity from offshore winds, putting it far behind the United Kingdom, Denmark and other northern European countries that have been developing offshore wind for nearly 20 years.

"We are entering a new day for [energy production](#) in the United States _ a time of [clean energy](#) from renewable domestic sources on our Outer Continental Shelf," Secretary of Interior Ken Salazar said in a statement.

"Other nations have been using offshore [wind energy](#) for more than a decade," Salazar said. "We made the development of offshore wind energy a top priority for Interior. The technology is proven, effective and available and can create new jobs for Americans while reducing our expensive and dangerous dependence on foreign oil."

Britain, Denmark, the Netherlands and Sweden are the world's largest

producers of electricity from offshore winds.

The exploratory leases would allow wind companies to measure wind speed and intensity and other factors from towers built six to 18 miles offshore. The next steps would be to apply for a permit for a test turbine, and then there would be more government reviews before they could construct turbines, a process that could take several years or more, said Interior spokesman Frank Quimby.

The leases went to Bluewater Wind New Jersey Energy; Fishermen's Energy of New Jersey; Deepwater Wind and Bluewater Wind Delaware.

Willett Kempton, a professor at the University of Delaware College of Earth, Ocean and Environment, lead a study in 2007 that examined the wind potential from North Carolina to Massachusetts.

The study, which appeared in *Geophysical Research Letters*, found that if wind was tapped offshore with turbines in water up to 100 meters (330 feet) deep, which is just within technological reach, the coastal states would produce enough electricity to satisfy all electrical needs, power all light vehicles and replace heating fuel for all buildings.

According to Kempton, Delaware's average offshore winds have the potential to power between 1.2 million and 1.5 million homes.

Kempton said the leases Salazar announced were "the first concrete step of the development of what I believe will be a very large industry in the Northeast initially and then around the coastal regions of the country."

Texas, already the No. 1 wind state, has been working since 2005 to be the first state with offshore wind as well. Texas waters extend seven miles offshore, unlike the three-mile limit in other states. The state granted five exploratory leases in 2005 to a Louisiana company, Wind

Energy Systems Technology, which built a scientific measurements tower seven miles off Galveston. As yet, not electric production has begun.

Kempton said that existing technology doesn't allow for turbines that could withstand Category 5 hurricanes because it was developed in Denmark, where they're not an issue, but such turbines could be built, he said. "It's not that hard to engineer."

Cape Wind, a wind farm planned off Cape Cod, Mass., is still under review by the Minerals Management Service of the Interior Department.

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