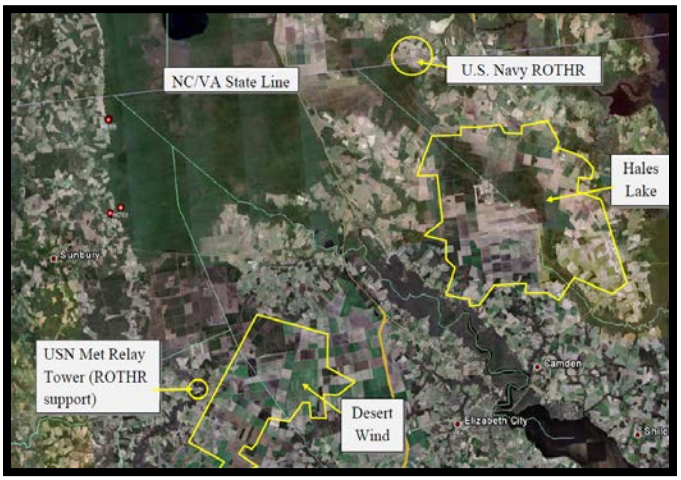
US Army Corps of Engineers
Wilmington District

# Desert Wind LLC, Wind Energy Project, Northeastern NC (Regulatory)

- **A large scale, land-based wind energy project with 150 wind turbines on 25,000 acres in Northeastern North Carolina.**




CONGRESSIONAL DISTRICT: NC-3 DATE: 6 February 2014

1. **PURPOSE:**

To provide information regarding the proposed Desert Wind energy project, by Iberdrola Renewables Inc., located in Pasquotank and Perquimans Counties. The project involves installation of 150 wind turbines on a 25,000-acre tract near Elizabeth City.

2. **BACKGROUND:**

a. The project area is located within a broad, flat landscape located at the headwaters of the Pasquotank and Little Rivers, interspersed with Prior Converted Croplands (former wetlands) and silvicultural operations. Waters of the United States, including wetlands, exist throughout the project area and are subject to Department of the Army (DA) jurisdiction pursuant to Section 404 of the Clean Water Act.

b. The project sponsor has chosen to conduct a Preliminary Jurisdictional Determination (PJD) which was confirmed in December 2011**.**

c. The Corps received a permit application on August 23, 2011, from Atlantic Wind, LLC, a subsidiary of Iberdrola Renewables, Incorporated. The Corps issued a public notice on September 2, 2011.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d. The proposed project involves construction of 150 wind turbines within a 2,513-acre portion of a 24,242-acre review area located 7.5 miles west of Elizabeth City, in Perquimans and Pasquotank Counties. As proposed, construction of the project will result in temporary impacts to 249.21 acres of forested wetlands and 45.67 acres of jurisdictional tributaries; and permanent impacts to 29.23 acres of forested wetlands and 1.37 acres of jurisdictional tributaries. A majority of the regulated impacts will occur within waters of the United States (man-made and/or maintained tributaries to traditionally navigable waters) and in wetlands currently managed for silviculture. Given the size and scale of the project, a DA individual permit will be required.

d. There is an existing Relocatable Over The Horizon Radar (ROTHR) receiver site located in Chesapeake, Virginia operated by the U.S. Navy. This particular Navy ROTHR monitors air and sea traffic from the Gulf of Mexico to Venezuela. The Navy repeatedly expressed concerns over the wind energy proposal and has completed a study of wind turbine interference on its ROTHR located in Texas. On September 28, 2011, the Navy submitted formal comments in response to the public notice stating that the proposed project would not adversely impact operations of the ROTHR.

e. In response to the proposed Hales Lake Wind Energy Project in Currituck and Camden Counties, the ROTHR Program Office conducted a second, more detailed analysis and released a more comprehensive report in June 2012. The second study was designed to determine the minimum wind farm standoff distance required to guarantee that the performance of the radar surveillance is not degraded. The report recommends a 45 km standoff distance between large scale wind power project and ROTHR receiver sites. The closest proposed wind turbines at the Atlantic Wind site would be 22 km from the ROTHR receiver site.

f. The Corps received a letter from the Department of Defense, United States Southern Command (USSOUTHCOM), Director of Operations stating that any degradation of operational performance of the ROTHR would adversely impact fulfillment of USSOUTHCOM primary mission responsibilities and would be considered unacceptable. USSOUTHCOM is requesting additional time to determine if mitigative measures exist that would reduce impacts to ROTHR operations.

g. A quick-look study was conducted by the Massachusetts Institute of Technology's Lincoln Laboratory to determine a more accurate standoff distance. A final report was expected in July 2013 however, the Corps was never provided a copy of the results of this study.

## 3. **CURRENT STATUS:**

After a thorough analysis of the facts, the Corps determined that the project is not contrary to the public interest and a permit was issued September 5, 2013.