



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
US Integrated Ocean Observing System (IOOS®)  
1100 Wayne Ave., Suite 1225  
Silver Spring, Maryland 20910

July 14, 2014

Dr. Andrew Krueger  
Project Coordinator  
Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
381 Elden Street, HM 1328  
Herndon, VA 20170-4817

RE: Commercial Leasing for Wind Power Development on the Outer Continental Shelf Offshore New York – Call for Information and Nominations (Docket BOEM-2014-0087); and Notice of Intent to Prepare and Environmental Assessment (Docket BOEM-2014-0003)

Dear Dr. Krueger:

The National Ocean Service (NOS) has reviewed the Federal Register notice (79 FR 102) published on May 28, 2014, requesting submissions of information and nominations (Call) for commercial leases for wind energy development on the Outer Continental Shelf (OCS) offshore New York, including comments on environmental issues and potential alternatives. In addition, you are requesting comments on your Notice of Intent (NOI) to prepare an Environmental Assessment for potential commercial wind lease issuance and site assessment activities.

NOS appreciates the efforts of the Bureau of Ocean Energy Management (BOEM) to engage programs across the National Oceanic and Atmospheric Administration (NOAA). As such, we understand that BOEM is already familiar with NOS products and services as they relate to energy (for example, nautical charting, coastal management, ocean observations, coastal science). NOS is available to discuss any of our priorities, programs, and projects as needed (<http://oceanservice.noaa.gov/about/>).

In regards to the above mentioned Federal Register Notice, I am submitting the following comments on behalf of NOS. We are highlighting for BOEM's awareness, the location of high frequency radars supporting through the U.S. Integrated Ocean Observing System (IOOS®).

There are eleven (11) high frequency (HF) radars in New Jersey, New York and Rhode Island that will be negatively impacted to some degree or another by wind turbines situated offshore Long Island. This would result in a loss of coastal radar monitoring for 100 miles of the NY, NJ, RI coasts. HF radars are used operationally by US Coast Guard for search and rescue and by NOAA for oil spill response. Both these applications require 24/7/365 operations unimpeded by external interference to the HF radar signal. More information on the radars is available at [www.ioos.noaa.gov/hfradar](http://www.ioos.noaa.gov/hfradar).



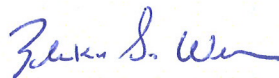
Two recent simulations of offshore wind turbine interaction with HF coastal radar operation (Teague, 2012, <http://www.oceans12mstsi.eeehamptonroads.org/index.cfm>; Naqvi and Ling, DOE Study DEEE0005380) indicate that rotating turbine blades will cause some degree of interference with HF radar data and that this interference will require mitigation techniques. The signature and impact of turbine blade rotation on HF radar data processing are not currently characterized from real-world situations, and simulation data only recently exist. Simulations of turbine impacts must be refined to include details of actual turbine construction materials and operating parameters. These simulations and real-world data will inform regulators of the extent to which mitigation techniques will be required for unimpeded HF radar operation.

NOS and the U.S. IOOS Program would like to work with BOEM to seek to minimize and if possible eliminate impacts to HF radar operations.

Should you have any questions on the HF radar, please contact Jack Harlan, Project Manager, HF Radar Ocean Remote Sensing in the U.S. IOOS Program Office at 240-478-9942 or [jack.harlan@noaa.gov](mailto:jack.harlan@noaa.gov). Other questions on NOS programs can be directed to Glenn Boledovich, Chief of the NOS Policy, Planning, and Analysis Division (301-713-3070 or [Glenn.Boledovich@noaa.gov](mailto:Glenn.Boledovich@noaa.gov)).

Thank you for the opportunity to provide comments on the NOI for Commercial Leasing for Wind Power on the OCS Offshore New York. We look forward to continuing to coordinate with you in the future.

Sincerely,



Zdenka S. Willis  
Director, U.S. IOOS Program Office

cc: Glenn Boledovich, Chief, NOS Policy Planning and Analysis Division  
Jack Harlan, U.S. IOOS Program Office  
Betsy Nicolson, NOAA CMSP Regional Lead  
Susan Holmes, NOAA Energy Team co-lead