



October 7, 2015

*Secretary Donald R. van der Vaart
Department of Environmental Quality*

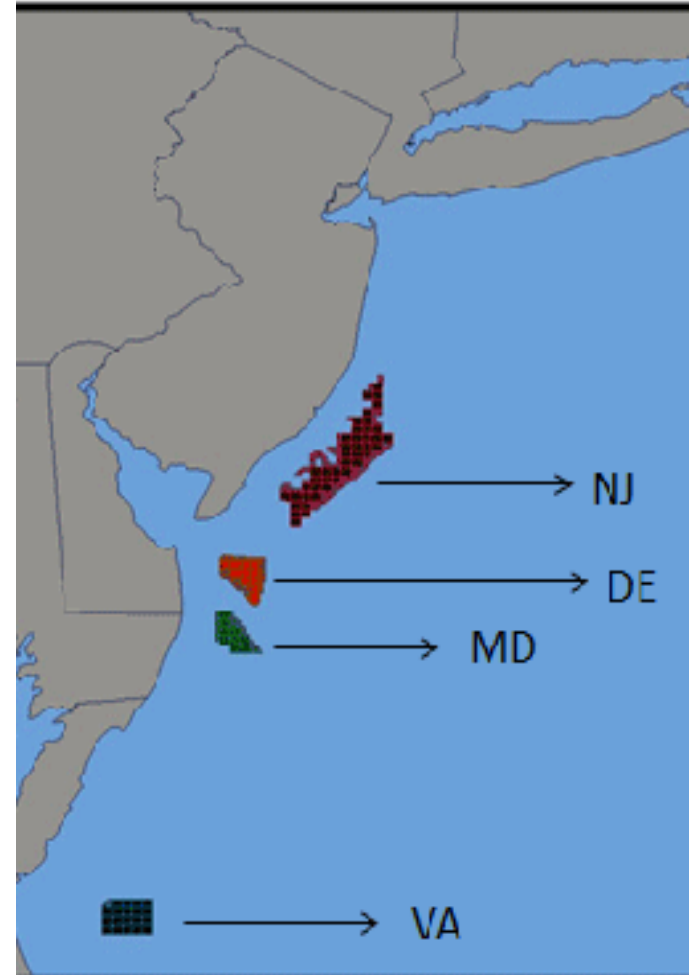
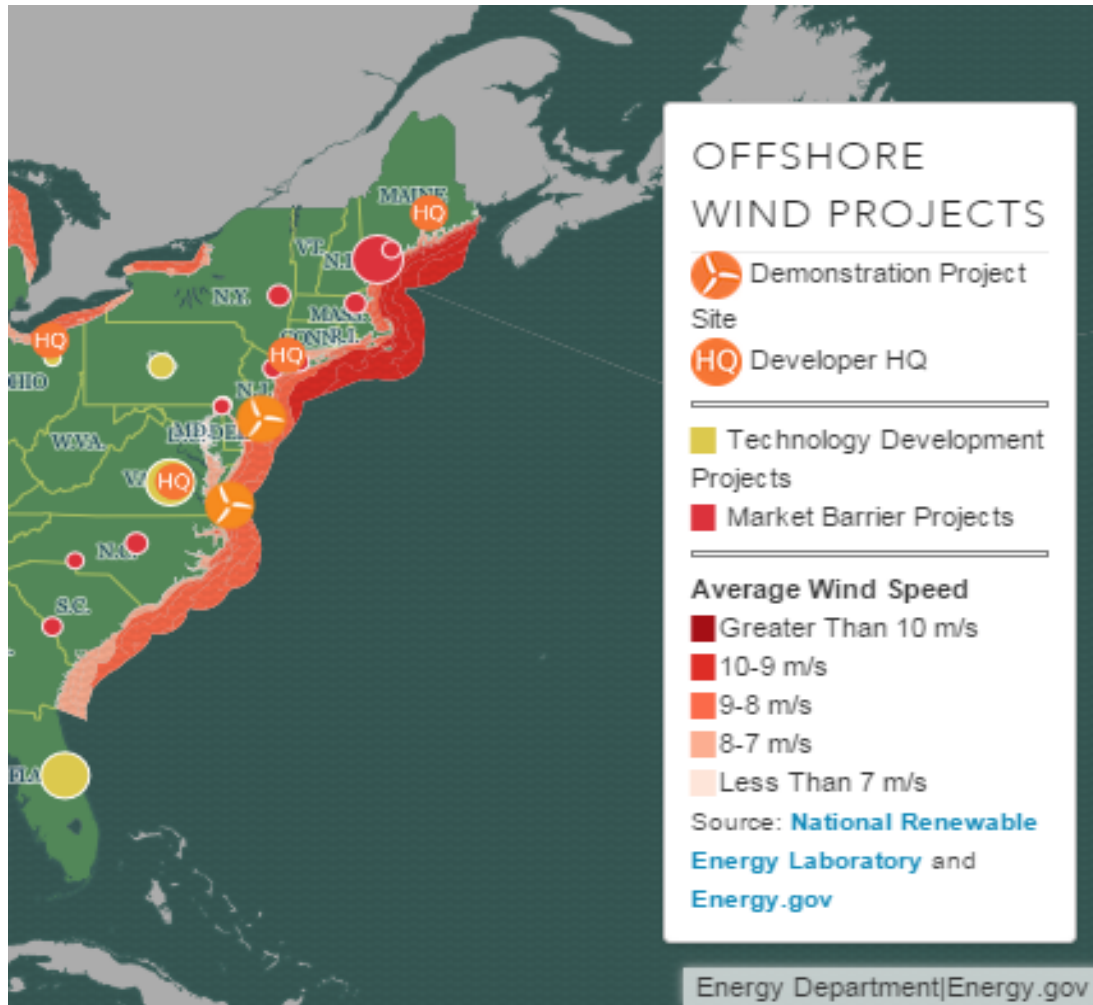


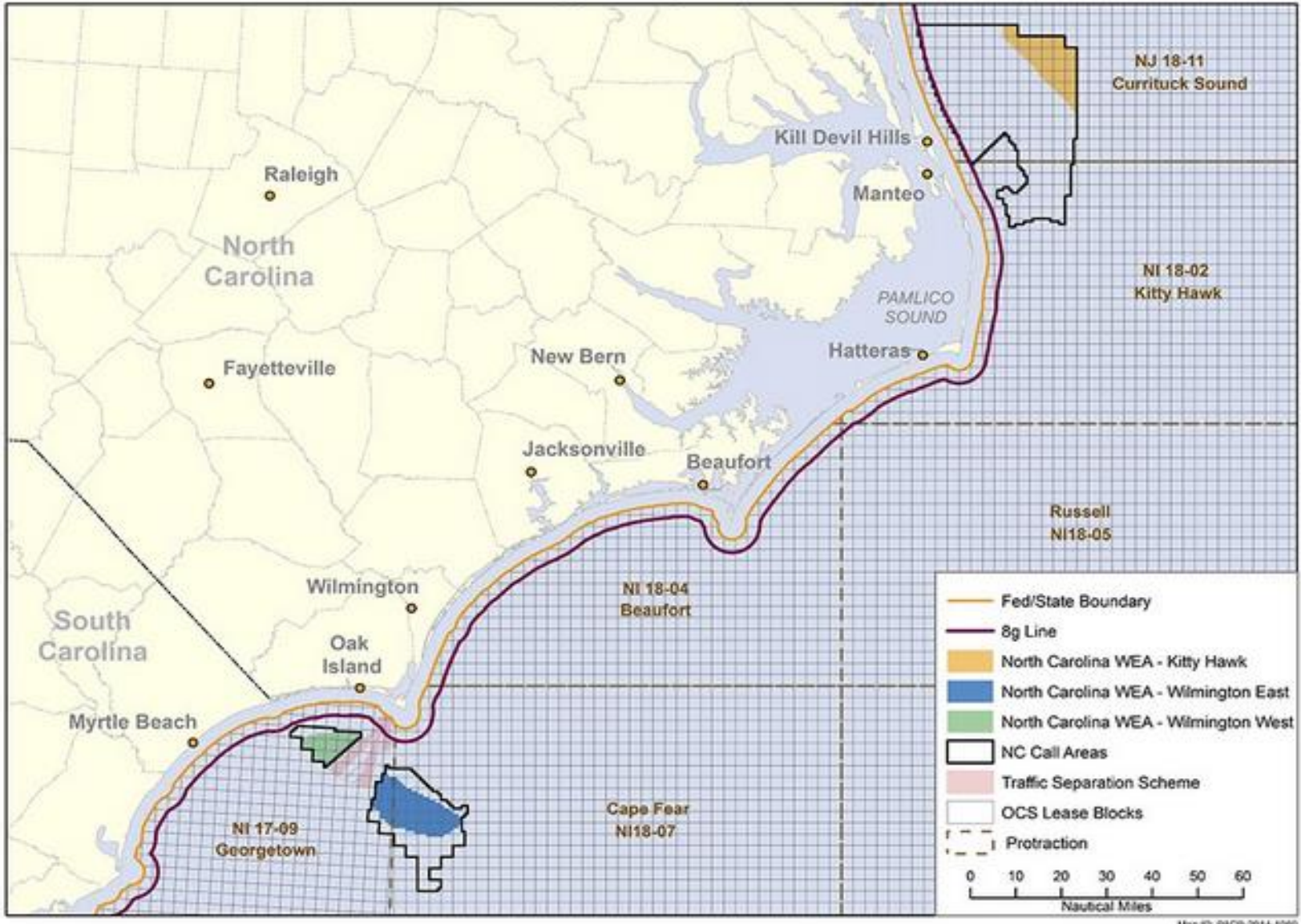


When I took office in January 2013, North Carolina had the fifth highest unemployment rate in the nation. Today, it is the 23rd lowest thanks to the nearly 200,000 new jobs created by North Carolina's innovative private sector. Opening up the waters off of our coast to energy development will spur new high-paying jobs and lower the unemployment rate even further.

Governor McCrory, March 30, 2015

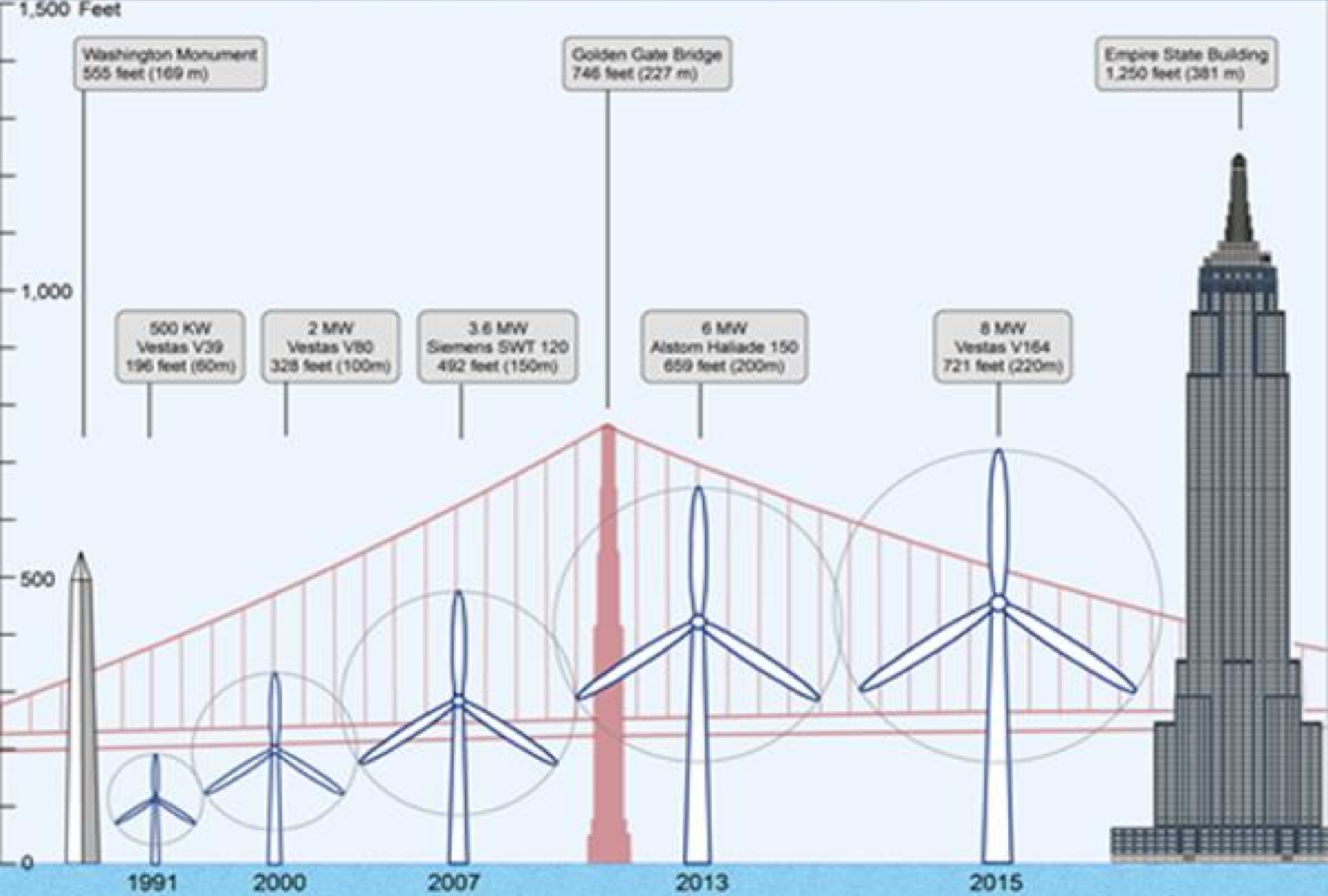






Map ID: PAC9-2014-1000

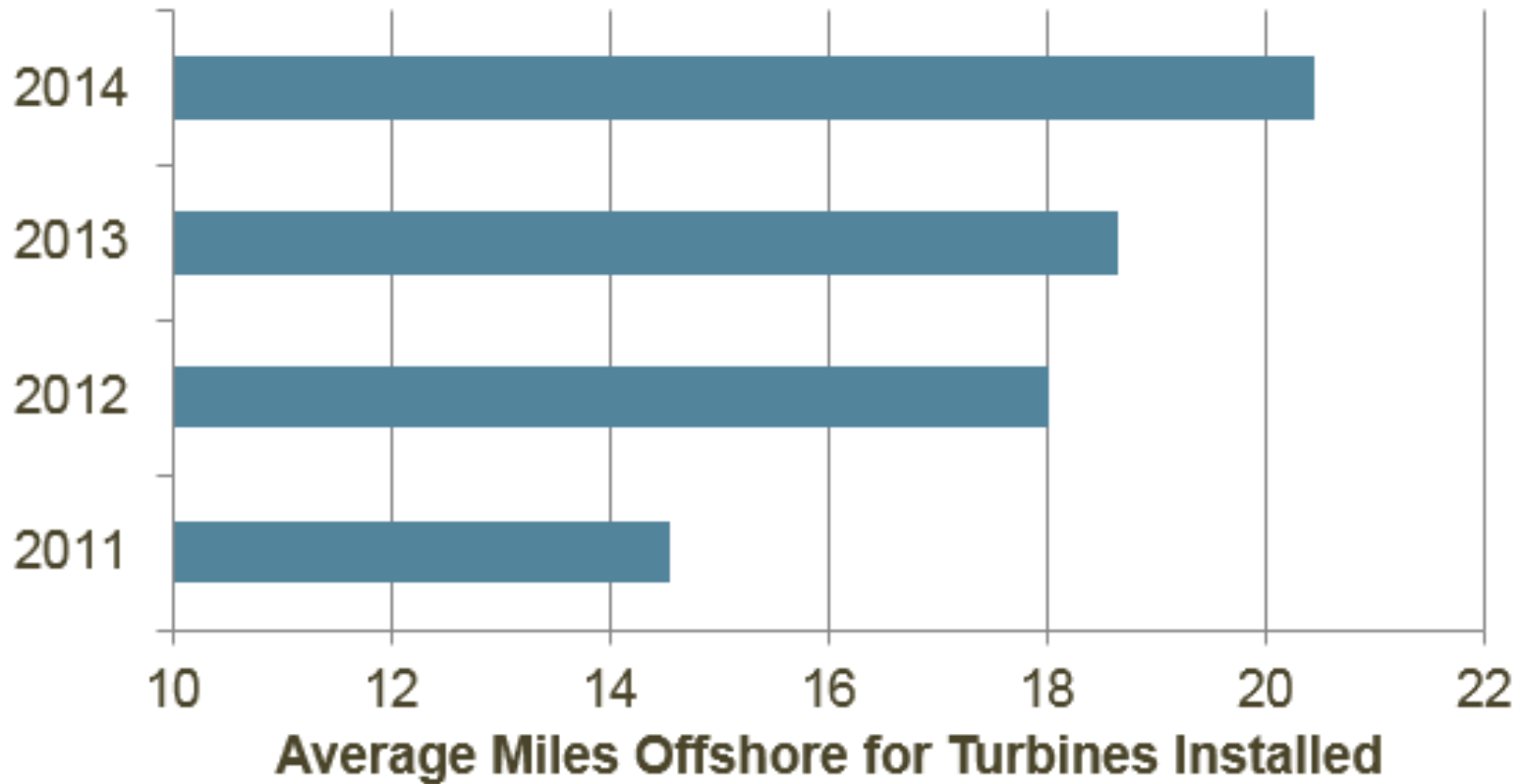




European Offshore Wind Energy Siting



European Wind Energy Association





- “[V]iewshed impacts of offshore wind farms are an unambiguous disamenity, both for the beach rental market in NC, as well as for the NC population in general. Moreover, welfare impacts are significantly higher if nighttime images are included in the survey or the wind farm location is specified to be off the Cape Hatteras National Seashore.
- [T]he VR survey suggest[s] that the construction of wind farms within view would result in approximately 55% of respondents no longer renting in the area and another 24% would require substantial discounts in rentals prices to continue renting in the area if turbines are placed close to shore.
- [T]he disamenity impact of visible wind farms is found to decrease with distance.”

Essays in Offshore Wind Energy Development

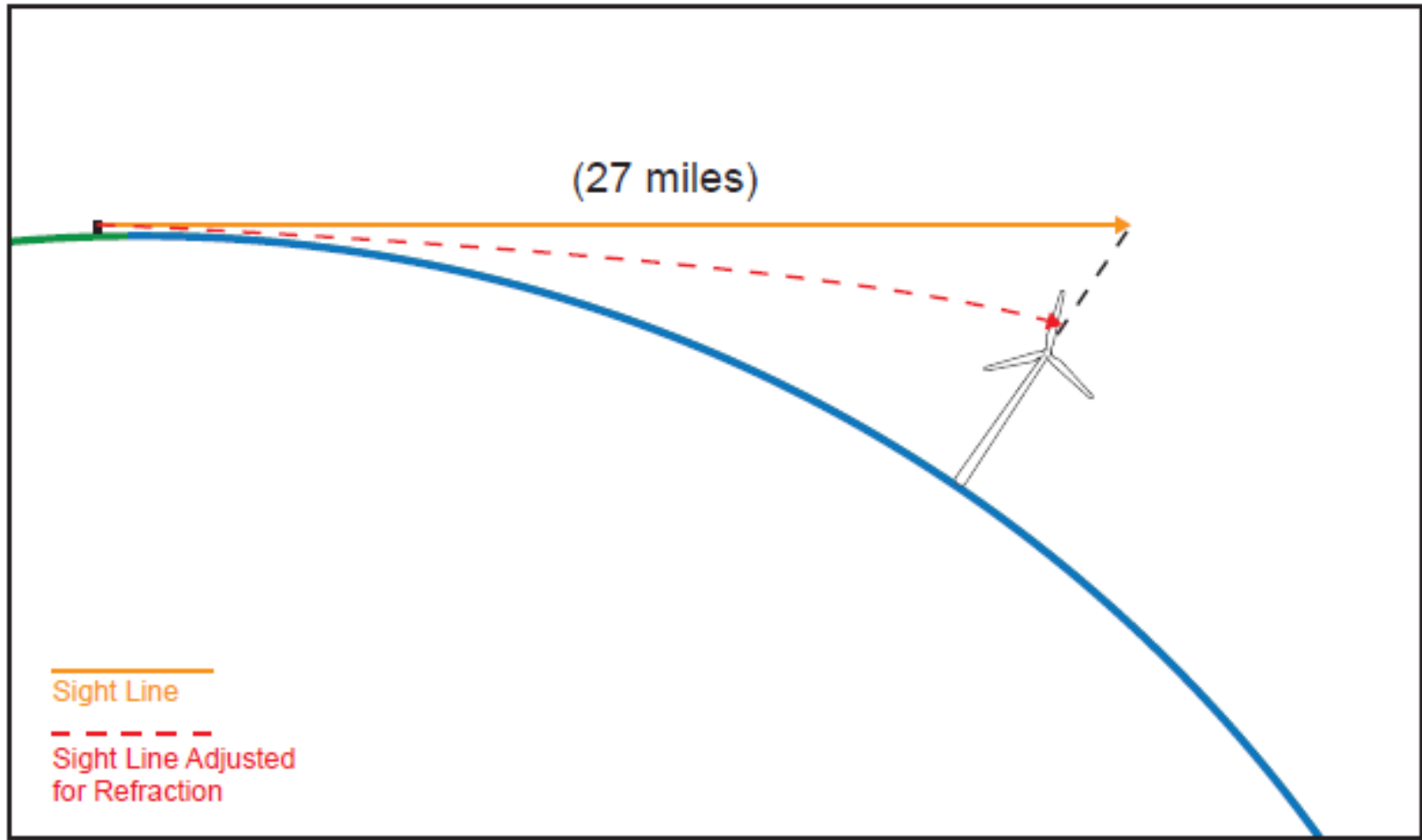
Lutzeyer, Sanja Sep 2014

PhD Dissertations & Theses

North Carolina State University



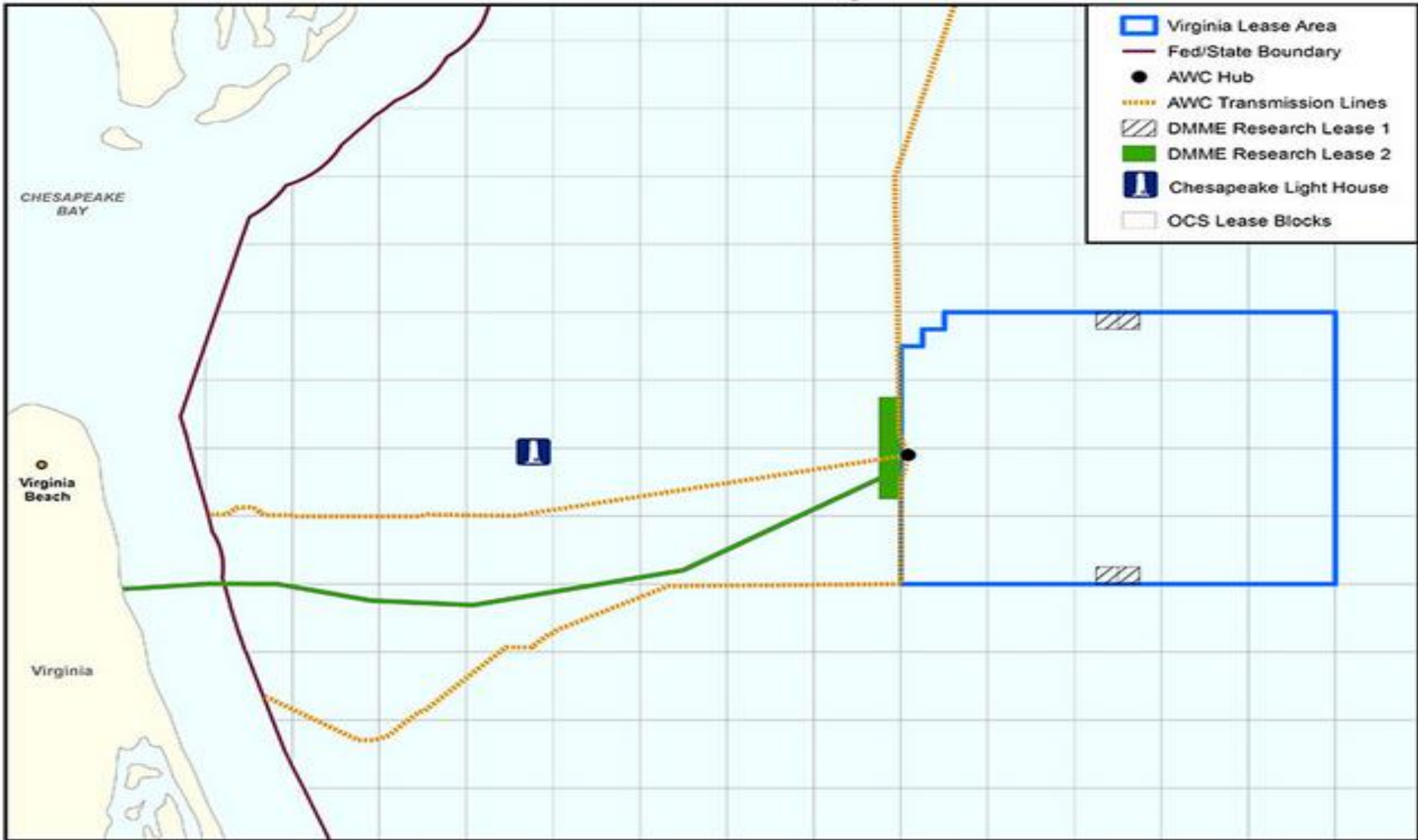
Viewshed Considerations



not to scale



Virginia Wind Demonstration Project



Virginia Demonstration Project



Virginia Demonstration Project

- The Virginia Wind Energy Demonstration Project (VOWTAP) will consist of two 6-MW wind turbines approximately 27 miles off the coast of Virginia.
- VOWTAP will provide the first measurement of a wind turbine's response in an actual hurricane.
- It will also establish a database of structural and environmental measurements that will inform certification rules and offshore wind design standards and characterize the environmental conditions in the Mid-Atlantic



Hurricanes?

- An offshore wind project has yet to be built in an area prime for hurricanes
- One study finds that tens of thousands of turbines, much larger than commercial wind farms could weaken hurricanes and reduce storm surge (Stanford University)
- Another study finds a Category 3 hurricane will buckle 46% of the wind turbines (Carnegie Mellon University)
- For the Dominion demonstration project, turbine suppliers will be evaluating and considering hurricane conditions in their designs



Excellent opportunities are ahead for North Carolina if we strike the right balance between resource management and environmental protection.





Department of Environmental Quality

