

# WIND OVER NORTH CAROLINA WATERS: THE STATE'S PREPAREDNESS TO ADDRESS OFFSHORE AND COASTAL WATER-BASED WIND ENERGY PROJECTS\*

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*Nationally, there is great interest in placing wind turbines in coastal and ocean waters. At this time, no such facilities exist. However, major projects are either underway or being planned for siting on the east coast. The ocean waters off the coast of North Carolina and the waters of its large internal sounds are attracting interest because of their high wind resource potential. Therefore, the State needs to be adequately prepared to address legal issues and ecological and other concerns that future water-based wind energy proposals will present. In this Article, the authors discuss water-based wind energy projects currently under development in the United States, a number of technical limitations affecting the near-future prospect of such projects being located in North Carolina coastal or ocean waters, the newly promulgated regulations for leasing the federal Outer Continental Shelf for such projects, the necessity of the State being prepared to use the Coastal Zone Management Act consistency requirement to protect state interests, and the state's existing regulatory structure, coastal development rules, and submerged lands leasing statutes impacting water-based wind energy. The authors conclude that if the State wishes to promote this form of renewable energy, certain agency jurisdictional conflicts need to be removed, some coastal development policies need to be modified, and its submerged lands leasing statutes need to be revised. The authors also discuss proposed legislation which would have addressed some of these issues but which failed to pass the North Carolina General Assembly in its 2009 Session.*

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*This proposed legislation is likely to be reintroduced in the 2010 Session.*

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## INTRODUCTION

As an alternative to traditional carbon-based energy sources, many look to the wind as a potential source of renewable energy. When wind energy developers, policy makers, and the public contemplate potential sites for wind energy facilities, many eyes turn toward coastal and offshore areas where the wind is “always blowing.” A simplistic view of water-based wind energy facilities is: There is all that available open space out there. Wind resources are strong and consistent in coastal and offshore waters.<sup>1</sup> The energy source is non-polluting. And, water-based wind energy projects have a significant advantage over land-based projects: the developer of a water-based project only has to deal with one landowner, either the State or, if the project is sited more than three miles from shore, the federal government.<sup>2</sup> Land-based projects may require dealing with a large number of individual landowners in order to acquire the acreage necessary for an economically viable wind energy project. Finally, looking to Europe, we see that it already has significant offshore wind energy generating facilities.<sup>3</sup> In light of these facts, many ask why this country is slow to develop the wind energy potential of its coastal and ocean waters.

A careful examination of water-based wind energy, however, demonstrates that putting wind turbines and related equipment in coastal and ocean waters presents more, and different, technical and other difficulties than putting wind turbines and facilities on land.

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1. According to the wind resources mapping project conducted by TrueWind Solutions, LLC for the North Carolina State Energy Office, North Carolina has significant wind resources along the Outer Banks. See N.C. Solar Center, The Coastal Wind Initiative, <http://www.ncsc.ncsu.edu/coastalwindinitiative.php> (last visited Aug. 10, 2009).

2. Submerged Lands Act of 1953, 43 U.S.C. § 1301(a)(2) (2000) (defining “lands beneath navigable waters” as to give states title to submerged lands and resources within three miles of coastline); Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1331(a) (2006) (defining “outer Continental Shelf” as submerged land located beyond lands beneath navigable waters). For reasons unimportant to this Article, the Outer Continental Shelf begins nine miles off the coast of Texas and west coast of Florida. JOSEPH J. KALO ET AL., COASTAL AND OCEAN LAW: CASES AND MATERIALS 422 (3d ed. 2007).

3. See Wind Service Holland, <http://home.wxs.nl/~windsh/offshore.html> (last visited May 5, 2009).