

# LEGAL TIDES

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## Offshore Wind Energy Development in North Carolina: Discussion of the Legal Framework

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Wind energy production in ocean and coastal waters is a fledgling industry in the United States. It is the subject of rigorous debate, primarily due to the controversy surrounding the Cape Wind project — a 130-turbine offshore wind facility proposed for Nantucket Sound near Cape Cod, Massachusetts. Cape Wind was the first proposed offshore wind project in the nation, and it began applying for permits in 2001. The project became hotly contested as the federal, state, and local governments began their review, and the project has yet to move beyond the permitting stage. Project review remains ongoing, and Cape Wind anticipates the permitting phase will conclude in 2008, with the facility constructed and operational in 2010.<sup>1</sup>

The national debate on renewable energy and climate change has prompted other states to contemplate offshore wind energy production. Since Cape Wind was proposed, other offshore wind projects have been proposed for waters off the coast of New York,<sup>2</sup> Texas, and Delaware. As more information is gathered regarding offshore wind resources in the United States, and as the technology advances, more coastal states may take a closer look at their own potential to harvest wind resources for everyday energy use.

North Carolina, particularly along its coast, does have strong wind resources in certain areas.<sup>3</sup> Given that offshore wind energy development is an emerging industry in this country, North Carolina may see a proposal for such a project in the future. Although North Carolina currently has

no offshore wind development, a recent proposal submitted to the N.C. Utilities Commission for a three-turbine wind facility in coastal Carteret County is causing a stir.<sup>4</sup> Called the Golden Wind Farm, its turbines would generate 4.5



*Courtesy of the NC Solar Center*

megawatts of electricity that would be sufficient to power approximately 900 homes.<sup>5</sup> The applicant would sell the power to Progress Energy.<sup>6</sup> In response to this proposal, the Carteret County Board of Commissioners adopted a nine-month moratorium on issuing permits to build wind turbines.<sup>7</sup> The applicant for the Golden Wind Farm project acknowledges that the interim moratorium may delay the permitting process, but remains

hopeful that the project will not be deterred.<sup>8</sup> The purpose of the moratorium through Dec. 2008 is to allow the county the opportunity to study wind energy technology and its use and regulation in coastal areas throughout the nation.<sup>9</sup>

This article will provide a glimpse into the federal and state legal framework regarding wind energy development in ocean and coastal waters. It also will explore the potential for an offshore wind project to be permitted in the state given the current state of the law, and whether changes in or additions to state law are needed for the state to pursue offshore wind energy development. The article will not discuss the viability of offshore wind as a cost-effective source of energy for coastal North Carolina.

### Wind Energy Resources in North Carolina

Studies have shown that North Carolina has wind resources significant enough to make wind energy a viable option for the state, particularly along the Outer Banks.<sup>10</sup> Offshore wind facilities potentially could be constructed in either sounds, state coastal-ocean waters, or in federal ocean waters. Because offshore wind projects include placing permanent structures in public trust waters, federal permits, state permits, or both will be required for construction, operation, and maintenance of the facility. Offshore wind facilities not only include wind turbines and platforms, but also transmission cables to route energy to land, as well as substations and other associated infra-

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structure. Dredging and construction activity also would be required.<sup>11</sup> Therefore, even if a wind facility were sited in federal waters, state permits would be required under most circumstances. What follows is an overview of the federal and state laws that likely would apply, should a wind energy development project be proposed off the coast of North Carolina.

## Federal Law

At the time the Cape Wind project was proposed, the United States had no policy or regulatory framework regarding wind energy development in federal waters. This was one of the chief criticisms of Cape Wind in the beginning. Commentators remarked on the potential detriments of ad hoc permitting of offshore wind projects, unless the nation addressed the issue. The Energy Policy Act of 2005 (EPA) addressed offshore wind energy peripherally by vesting authority within the Minerals Management Service (MMS) of the Department of the Interior over renewable energy and alternate uses of the nation's offshore public lands along the Outer Continental Shelf (OCS).<sup>12</sup> Authority was vested within the MMS because of its environmental, engineering, and regulatory expertise managing energy and mineral resources in federal waters.

Should another offshore wind project be proposed in federal waters, other federal agencies — such as the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and NOAA Fisheries — also would be involved in the review process to relay their expertise. Federal laws that may apply include, but are not limited to, the National Environmental Policy Act (NEPA), Clean Water Act (CWA), Clean Air Act (CAA), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Migratory Bird Treaty Act (MBTA), Rivers and Harbors Act (RHA), Outer Continental Shelf Lands Act (OCSLA), and Coastal Zone Management Act (CZMA). Below is a brief overview of a few of the federal laws that likely would apply to a wind project sited in federal waters.

The NEPA was passed in 1969 and requires the federal government to take into account environmental impacts when issuing permits to allow federal actions. When a federal action is proposed, the lead federal agency conducts an Environmental Assessment to determine whether the project's impacts are significant enough to warrant a full Environmental Impact Statement (EIS), which requires more rigorous review. This

more rigorous review includes an analysis of alternatives to the project that would have fewer impacts than the original proposal. Such a review also would discuss why these alternatives were eliminated from consideration during the NEPA process. If the lead agency determines instead that a proposed project will not have a significant impact on human health or the environment, then a Finding Of No Significant Impact, or FONSI, is issued. However, it is likely the impacts of a



*Courtesy of the NC Solar Center*

proposed offshore wind project would be deemed significant enough to warrant a full EIS, given the nature and scope of this type of project. The requirement of preparation of an EIS triggers analysis under other federal laws as well, such as the ESA, CWA, and RHA. The additional laws that may apply to a proposal for an offshore wind energy project are discussed below.

The CZMA was passed in 1972 “to preserve, protect, develop, and where possible, to restore or enhance” the nation's coastal resources.<sup>13</sup> The CZMA encourages participation of coastal states and provides financial and technical assistance as incentives. For a state that wishes to participate, it must first develop a coastal management plan that defines permissible land and water uses within that state's coastal zone. This plan is then submitted to the National Oceanic and Atmospheric Administration for approval. Once an approved state plan is in place, federal activities or project proposals that require a federal permit can be subject to the Consistency provision of the CZMA. The Consistency provision requires an activity to be “consistent” with the enforceable policies of the affected state's coastal management plan.<sup>14</sup> If the affected state determines the activity is “inconsistent” with its coastal manage-

ment plan, then the state may negotiate conditions in order for the activity to be deemed consistent. However, if negotiations cannot be reached and the inconsistency determination remains, then the applicant may appeal the state's decision to the Secretary of the Department of Commerce, who has the authority to override the state.<sup>15</sup> However, unless the Secretary of Commerce overrides the state's objection, federal agencies are unable to issue to the applicant any necessary federal licenses or permits.<sup>16</sup>

A wind energy development project sited in federal waters likely would involve the leasing of submerged lands from the federal government.<sup>17</sup> Coastal states only have jurisdiction over submerged lands up to three geographical miles.<sup>18</sup> If a party wishes to lease submerged lands beyond this limit (e.g., to construct and operate a wind energy development facility), then a submerged-lands lease from the Department of the Interior is needed.<sup>19</sup> The U.S. Army Corps of Engineers has jurisdiction over navigable waters of the United States, and Section 10 of the RHA requires a permit for structures or work in or affecting those waters.<sup>20</sup> An offshore wind project by its very nature would require structures to be built over navigable waters, and thus, a Section 10 permit would be needed. An offshore wind project likely would involve impacts to protected species. If so, review under the ESA, MBTA, and MMPA also would be needed. Additional review would be required if a project would affect fisheries or essential fish habitat.<sup>21</sup>

## North Carolina Law

There is no North Carolina statutory or regulatory framework currently in place that governs offshore wind energy. However, there are current statutes that may apply and permits that may need to be obtained. This section presents an overview of potentially relevant state laws, including the Coastal Area Management Act (CAMA), North Carolina Environmental Policy Act (NCEPA), North Carolina Dredge and Fill Act, North Carolina Public Utilities Act, and North Carolina Archives and History Act. However, it is not clearcut which law would control the permitting process.

A major question is whether an offshore wind project would fall under the jurisdiction of CAMA or the state Public Utilities Act. This question seems to depend on the definition of “development” set forth in CAMA, which would require a permit from the Coastal Resources

Commission (CRC) if a proposed project will be located in an Area of Environmental Concern.<sup>22</sup> “Development” is defined as:

*Any activity in a duly designated area of environmental concern... involving, requiring, or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading, driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank, or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake, or canal; or placement of a floating structure in an area of environmental concern identified in G.S. 113A-113(b)(2) or (b)(5).<sup>23</sup>*

The statute then lists exceptions to the definition of “development.” One important exception is “work by any utility and other persons for the purpose of construction of facilities for the development, generation, and transmission of energy to the extent that such activities are regulated by other law or by present or future rules of the State Utilities Commission...”<sup>24</sup> It is possible that an offshore wind project may not be considered “development” under CAMA, if it is regulated by the State Utilities Commission. However, the likelihood of this is arguable. The italicized part of the “development” exception contains a qualification that the exception applies when pertinent activities are regulated by other law or by present or future rules of the State Utilities Commission. Given that the Utilities Commission does not currently have rules in place to govern alternative energy facilities in ocean or coastal waters, it is possible the CRC still may have authority to require that a proposal to place such facilities in Areas of Environmental Concern comply with existing CRC rules.<sup>25</sup>

If an offshore wind project proposal were to fall under CAMA, the applicant would need to obtain a CAMA permit from the CRC. It would be considered a major development requiring a CAMA “major development permit.”<sup>26</sup> In order to obtain the permit, an applicant would be required to file an application and submit the appropriate fee to the Department of Environment and Natural Resources (DENR) and designated local official if seeking a permit from a county or municipality.<sup>27</sup> Because any such facility would be located in estuarine or ocean waters, which are navigable waters of the United States, it also would need federal permits.

A CAMA permit is generally sufficient if the following permits are necessary: to dredge and fill, for easements to fill, or for water quality

certification. Moreover, an offshore wind facility potentially could impact underwater historical artifacts, such as shipwrecks. The N.C. Department of Cultural Resources has the authority to adopt rules to preserve or protect shipwrecks, vessels, cargoes, tackle, and underwater archaeological artifacts to which the state has title.<sup>28</sup> While the legislation does authorize permits to explore or salvage such underwater artifacts,<sup>29</sup> there is no indication of any permit that may be obtained for their destruction.

NCEPA authorizes municipalities to require environmental impact statements by ordinance.<sup>30</sup> Such ordinance requirements, however, will not be needed for those who have completed a comparable document at the state level.<sup>31</sup> Furthermore, an offshore wind facility would be subject to an easement or a lease of state-owned submerged lands.<sup>32</sup>

### The Need for a North Carolina Policy on Wind Energy Development

North Carolina could consider developing a management strategy to address offshore wind energy development. The General Assembly attempted to address renewable energy during the 2007 legislative session when House Bill 1821 was introduced. House Bill 1821, if passed into law, would vest authority over the siting of wind energy facilities within DENR.<sup>33</sup> However, as of June 2008 this bill has not been referred out of committee. The proposed legislation is limited in scope because it does not cover all forms of alternative energy facilities placed in coastal and ocean waters, and more comprehensive legislation would be beneficial to the state.

Despite the temporary moratorium on wind turbines in Carteret County, the proposal for the Golden Wind Farm may lead to the proposal of more projects. The Golden Wind Farm proposal already has sparked discussion and criticism. Residents that live near the proposed site have expressed aesthetic concerns, particularly because the project would be located near a scenic highway.<sup>34</sup> Carteret County commissioners have placed a nine-month moratorium on issuing permits for wind turbines until a study on wind energy technology is completed.<sup>35</sup>

The proposal for the Golden Wind Farm, although not an offshore project, highlights the need for North Carolina to consider a comprehensive policy regarding wind energy development. Today, land-based wind energy facilities have been proposed. Tomorrow may bring proposals for offshore wind energy facilities in North Carolina’s sounds or ocean waters. It is important for North Carolina to formulate policy on offshore wind be-

fore such a project is proposed, so the state will have a better road map on how to address the issues and potential impacts on North Carolina’s ocean and coastal resources and its communities. Moreover, having regulations in place at the earliest possible stage would provide meaningful policy guidance to the CRC and provide a regulatory framework that could encourage (or discourage) investment in specific projects. Furthermore, if a project is proposed for siting in federal waters, any North Carolina wind energy facility regulations or restrictions also would be applicable to it. The state also would benefit from incorporating these regulations into its coastal management plan. The benefit is that North Carolina would then be in a position to review projects proposed for federal waters, based on the Consistency authority granted to coastal states by the CZMA. This would ensure that North Carolina’s interests are fully protected, even in a federal leasing or permit process for a wind energy project that would impact the state’s coastal communities and resources.

### Footnotes

1. Cape Wind, “Cape Wind Timeline,” at <http://www.capewind.org/article26.htm> (accessed February 1, 2008).
2. However, the project for Long Island Sound, proposed by the Long Island Power Authority, was terminated in August 2007 due to cost. Harrington, Mark, LIPA Chief Kills Wind Farm Project, *Newsday*, August 23, 2007, at <http://www.newsday.com/business/ny-bzwind0824.0.7647935.story> (accessed February 8, 2008).
3. See NC Solar Center, “Coastal Wind Initiative,” at [http://www.ncsc.ncsu.edu/programs/the\\_coastal\\_wind\\_initiative.cfm](http://www.ncsc.ncsu.edu/programs/the_coastal_wind_initiative.cfm) (accessed February 1, 2008).
4. Wade Rawlins, Coastal Wind Farm Proposed, *The News & Observer*, February 6, 2008, at <http://www.newsobserver.com/news/story/926691.html> (accessed February 6, 2008).
- 5-6. *Id.*
7. Book, Sue, Carteret Commissioners Adopt Moratorium On Windmills, *The Sun Journal*, March 3, 2008, at [http://www.newbernsj.com/news/wind\\_38676\\_\\_article.html/county\\_moratorium.html](http://www.newbernsj.com/news/wind_38676__article.html/county_moratorium.html) (accessed April 1, 2008).
- 8-10. *Id.*
11. To learn more about how a wind turbine works, visit the U.S. Department of Energy, “How Wind Turbines Work,” at [http://www1.eere.energy.gov/windandhydro/wind\\_how.html](http://www1.eere.energy.gov/windandhydro/wind_how.html) (accessed February 1, 2008). To learn more about how an offshore wind facility works, visit British Wind Energy Association, “How An Offshore Wind Farm Works,” at <http://www.bwea.com/offshore/how.html> (accessed February 1, 2008).
12. 43 U.S.C. § 1337.
13. 16 U.S.C. § 1452.
14. 16 U.S.C. § 1456.
- 15-16. *Id.*
17. For transmission cables and other support that pass over state submerged lands, state permits would be needed.
18. See Submerged Lands Act, 43 U.S.C. §§ 1311-1314. The exceptions to this rule are Texas and

the west coast of Florida. Their jurisdiction extends out nine geographical miles because these states had established their jurisdictions over a larger area before statehood. 43 U.S.C. §1312.

19. The EPA Act gave the Department of the Interior the authority to develop and implement an alternative energy and alternate use program. See Pub. L. No. 109-58, 119 Stat. 868 (codified in 26 U.S.C. and 42 U.S.C.). See also OCS Alternative Energy and Alternate Use Programmatic Final EIS at <http://oc-senergy.anl.gov/index.cfm>.

20. 33 U.S.C. § 403.

21. See generally Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801 et seq. See also essential fish habitat regulatory guidelines, 50 C.F.R. § 600.

22. See N.C. Gen. Stat. § 113A-118.

23. N.C. Gen. Stat. § 113A-118(5)(a).

24. N.C. Gen. Stat. § 113A-118(5)(b)(3) (emphasis added).

25. Id.

26. A “major development” means “any development which requires permission, licensing, approval, certification or authorization in any form from the Environmental Management Commission, the Department of Environment and Natural Resources, the Department of Administration, the North Carolina Mining Commission, the North Carolina Pesticides Board, the North Carolina Sedimentation Control Board, or any federal agency or authority; or which occupies a land or water area in excess of 20 acres; or which contemplates drilling for or excavating natural resources on land or under water; or which

occupies on a single parcel a structure or structures in excess of a ground area of 60,000 square feet.” N.C. Gen. Stat. § 113A-118(d). See also N.C. Gen. Stat. § 113A-118(a).

27. N.C. Gen. Stat. § 113A-119.

28. N.C. Gen. Stat. § 121-123 (2007); According to N.C. Gen. Stat. § 121-122 (2007), the state has title to “all bottoms of navigable waters within one marine league seaward from the Atlantic seashore measured from the extreme low watermark; and the title to all shipwrecks, vessels, cargoes, tackle, and underwater archaeological artifacts which have remained unclaimed for more than 10 years lying on the said bottoms, or on the bottoms of any other navigable waters of the State, is hereby declared to be in the State of North Carolina, and such bottoms, shipwrecks, vessels, cargoes, tackle, and underwater archaeological artifacts shall be subject to the exclusive dominion and control of the State.”

29. N.C. Gen. Stat. § 121-125.

30. N.C. Gen. Stat. § 113A-8(a).

31. N.C. Gen. Stat. § 113A-8(b).

32. N.C. Gen. Stat. §§ 146-11 and 146-12.

33. H.B. 1821, Gen. Assem., 2007 Sess. (N.C. 2007) is entitled “An Act to Establish a System of Permits to be Issued by the Department of Environment and Natural Resources for the Siting of Medium and Large Energy Systems and to Require Operators of these Wind Energy Systems to Obtain a Permit to Site their Wind Energy Systems.”

34. Book, supra note 7.

35. Id.

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### In the Next Edition

*In the next issue of Legal Tides, Center co-director Joseph Kalo will explore property damage after natural disasters in “After the Storm: Houses on the Beach.”*

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