ENVIRONMENTAL LAW INSTITUTE

Maryland Offshore Energy Framework

For the

Maryland Coastal Zone Management Program
Maryland Department of Natural Resources

September 30, 2009

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Prepared by
The Environmental Law Institute

for the

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About this Report—

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Executive Summary

Energy activities in state and federal waters will present new challenges for the Maryland planning and regulatory framework. Maryland is evaluating its ability to manage, plan for, and oversee permitting, environmental review, and integration of offshore energy projects with Maryland's goals for energy and the coastal environment. This report examines Maryland's existing laws and policies and identifies potential changes and additions that can help create a Maryland Offshore Energy Framework.

Control the Decisionmaking Context for Maryland Offshore Energy

1) Form an interagency council or working group (MEA, MDNR, MDE and others) to develop consistent policy positions on anticipated forms of offshore energy activities to facilitate decisionmaking.
2) Initiate an offshore alternative energy "task force" under the April 2009 Minerals Management Service rules to guide research, policy, and decisionmaking that may affect leasing of Outer Continental Shelf (OCS) lands off Maryland for wind energy.
3) Form a state working group to anticipate and address OCS energy development issues that will trigger NEPA review.
4) Maryland should support marine spatial planning for the uses of federal and state waters off the Atlantic shore.

> 4a) Maryland should actively push the development of the Federal Oceans Task Force "framework for coastal and marine spatial planning" toward seamless consideration of waters inside and outside the three-nautical-mile limit.
> 4b) Maryland should participate in preparing a regional oceans plan in collaboration with the Mid-Atlantic Regional Council on the Ocean (MARCO) states and federal agencies.

Update Coastal Consistency Provisions

5) Maryland should update its list of identified federal actions and permits to include additional offshore activities, and update its geographic location designations to include actions in and near adjacent states' waters - interstate consistency.
6) Maryland should update its NOAA-recognized enforceable policies and add additional policies as needed to address wildlife, submerged lands, and best management practices.

Set Conditions for Use of Maryland's Waters

7) Whether or not marine spatial plans are prepared BPW/MDE/MDNR should adopt a planning regime for state waters and submerged lands that defines potential corridors, areas off limits, and suitable conditions.
8) Consider amending the Coastal Facilities Review Act to address facilities related to offshore alternative energy.
9) Make changes to the Critical Area Criteria or operation of the program to facilitate alternative energy siting in appropriate places, and to eliminate ambiguities when necessary, in consultation with the recommended state working groups, including:

9a) The Critical Area Commission should make it clear that transmission lines from offshore alternative energy facilities are within the definition of "regional or interstate facilities" that must cross tidal waters.

9b) The Critical Area Commission should determine how to treat transmission lines from small wind projects in state waters for purposes of critical area siting.

9c) The Critical Area Commission should consider whether the prohibition against siting power plants on state lands not in intensely developed areas should be re-evaluated in the context of offshore alternative energy generating facilities (e.g. windmills) that may be sited on state submerged lands.

10) Make changes to the Critical Area Criteria where warranted by state policy to clarify the treatment of OCS oil and gas pipeline siting.

10a) The Critical Area Commission should clarify whether oil and gas pipelines from the OCS are "utility transmission facilities."

10b) The Critical Area Commission should clarify whether oil and gas pipelines from the OCS are "utilities" excluded from habitat protection areas, including the buffer, except where there is "no feasible alternative."

11) Develop bird/bat/wildlife protection standards together with neighboring states.

12) Clarify the definition of "take" under state endangered species laws.

13) Develop fish/shellfish protection standards and strategies in Maryland and with neighboring states to protect these resources from foreseeable impacts of offshore energy.

14) Upgrade water quality standards to ensure that they anticipate potential impacts on Maryland waters and aquatic life resources from future offshore wind and oil & gas activities.

15) Review state regulations that might apply to discharges from algae facilities.

Improve Energy Regulation to Facilitate Offshore Renewables

16) The Public Service Commission should be given sufficient authority to address foreseeable issues with offshore renewable energy siting and development review.

16a) The General Assembly could expand the definition of transmission siting for which Certificates of Public Convenience and Necessity are required to include submerged and underground lines over 69 kV.

16b) Maryland should not extend the 70 MW onshore wind exception from Certificate of Public Convenience and Necessity to offshore wind in state waters.

16c) If Maryland decides as a matter of public policy to support or subsidize reliance on offshore wind as a preferred source of energy in preference to other forms, the state could consider (1) expanding the factors to be considered by the PSC in requiring or allowing electric companies to enter into long-term power purchase contracts, and (2) revising the state's renewable portfolio standards to increase the demand for and development of Maryland offshore wind.

17) Maryland should consider using its authority to facilitate siting and transmission where useful.

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Introduction

Anticipated energy activities in state and federal waters will present challenges for the Maryland planning and regulatory framework. Offshore energy facilities will require substantial engagement by state agencies and commissions in order to protect state resources and guide development where appropriate. Maryland is evaluating its ability to manage, plan for, and oversee permitting, environmental review, and integration of offshore energy projects with Maryland's goals for energy and the coastal environment.

This report examines Maryland's existing laws and policies and identifies potential changes and additions that can help create a Maryland Offshore Energy Framework. This introduction: (1) briefly identifies the likely offshore energy activities that Maryland will need to address, (2) provides a brief overview of federal and state jurisdiction in coastal waters, and (3) outlines the plan of this report.

Offshore Energy Challenges

This report examines Maryland laws and policies in the context of the following offshore energy activities:

Oil and gas exploration and drilling on the outer continental shelf (OCS) off the Mid-Atlantic States, including Maryland and its neighbors. The Minerals Management Service within the U.S. Department of the Interior is preparing plans to support investigation of offshore areas in the Mid-Atlantic region to determine the potential for production of oil and gas. MMS has already proposed a lease sale in federal waters off Virginia. This form of exploration, and potential development if any commercially developable resource is found, is very likely within the next decade. Issues include siting, support facilities, impacts from infrastructure, impacts from possible spills, and relationships with other uses of the offshore environment and its resources.

Offshore wind energy generating electric power in state and OCS waters. A wind mapping project commissioned by the Maryland Energy Administration concluded "the most favorable winds are found along the shore of the Maryland [Chesapeake] Bay and Atlantic Ocean, as well as offshore."[1] Mapping by the U.S. Department of Energy also shows a substantial wind resource in the Maryland waters of the Chesapeake Bay.[2] Several potential wind energy projects have been proposed in federal waters off Maryland's Atlantic coast, but the proponent did not pursue permitting.[3] A currently

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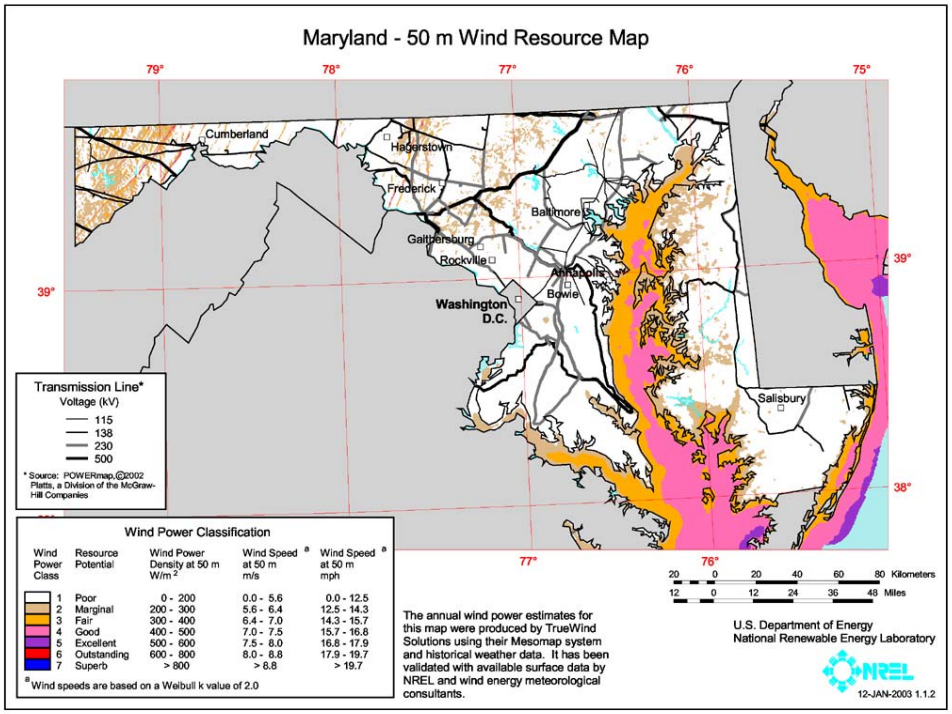
[1] Michael Brower, TrueWind Solutions LLC, Wind Resource Maps of Maryland, a Report prepared for the Maryland Energy Administration 5 (November 2002). In contrast, "the wind resource inland is modest."

[2] U.S. Dept. of Energy National Renewable Energy Laboratory, *Maryland 50-Meter Wind Resource Map* (Feb. 2005), http://www.windpoweringamerica.gov/maps_template.asp?stateab=md

[3] Two potential projects were suggested by Winergy LLC, now Deepwater Wind. Both would have been located in federal waters about three-and-a-half nautical miles offshore. The Isle of Wight wind farm would have 352 3.5 MW turbines, yielding 1267.2 nominal MW of energy in 71 square miles of water off Fenwick Island along the Ocean City coast. The Gull Bank wind farm would have 506 3.5 MW turbines

active proposal by Bluewater LLC anticipates construction of a wind farm in federal waters twelve miles off the coast of Delaware near Rehoboth Beach, if federal leases and state and federal permits can be obtained and if BlueWater is able to sell an additional 250 MW of power from the project.[4] Maryland Governor O'Malley indicated support for this project in 2008.[5] Three hundred megawatts of offshore wind would be necessary to meet 50% of Maryland's Renewable Portfolio Standard requirement in 2015.[6] Bluewater also held informal discussions in Ocean City in late 2007 about putting 150 turbines in federal waters 11.5 miles off the Maryland coast.[7]



The Maryland Energy Administration in September 2009 requested expressions of interest from wind energy developers potentially interested in constructing wind energy

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producing 1821.6 nominal MW of power in 108 square miles of water located off northern-central Assateague Island. Biliana Cicin-Sain et al., *Toward a Vision for Maryland's Ocean* 63 (December 2006).

[4] Power Purchase Agreement between Delmarva Power & Light Company and Bluewater Wind Delaware, LLC, at 30 (June 23, 2008). Bluewater may terminate the contract if it cannot find a buyer for its excess electricity output by June 30, 2010. *Id.*

[5] Michael Dresser and Tom Pelton, *Governor Supports Md. Participation in Del. Offshore Project*, Baltimore Sun, July 16, 2008, *available at* http://www.chesapeakeclimate.org/news/news_detail.cfm?id=654.

[6] Levitan & Associates, Inc., Analysis of Resource and Policy Options for Maryland's Energy Future, Prepared for the PSC, at 148 (December 2008) [hereinafter Levitan Report], *available at* http://webapp.psc.state.md.us/Intranet/sitesearch/whats_new/Levitan%20&%20Associates_Final%20Report_Analysis%20of%20Resource%20and%20Policy%20Options%20for%20Maryland%27s%20Energy%20Future%20for%20the%20MD%20PSC.pdf. But note that the Levitan model, which was based on BlueWater LLC's contract with Delmarva Power and Light of Delaware, also projected high capital costs for offshore wind. *Id.*

[7] Associated Press, "Wind Turbines proposed in Maryland Waters," Oct. 15, 2007

facilities in Atlantic waters adjacent to Maryland's coast.[8] The MEA also announced a study to gauge the economic viability and environmental impact of offshore wind energy generation off the Atlantic coast including on the outer continental shelf.[9] Wind power has also been suggested in and around the Chesapeake Bay, including a proposal for turbines just offshore of Virginia's Tangier Island to serve the island's residents; and small onshore windmills have been constructed by Maryland landowners adjacent to the Chesapeake Bay and Potomac River. Offshore wind power presents many issues similar to those of oil and gas facilities, supporting infrastructure, relationships to other uses of OCS and Bay waters, connection to shore facilities (delivery of electric power to the power grid), and visual and navigation impacts.

LNG transport/terminal. Maryland has already been engaged in regulatory review of facilities for liquefied natural gas (LNG) deliveries by tanker ship. Such facilities can be constructed either onshore or offshore, and take deliveries of gas from anywhere in the world with licensing from the Federal Energy Regulatory Commission (FERC). Maryland has experience with the expanded Dominion Cove Point facility, and more recently has been reviewing applications for state and federal permitting for the AES Sparrows Point facility, where the FERC license was approved January 2009 but state approvals are either pending or denied and under litigation. Issues include environmental and safety and land use issues related to ports, shipping, storage, pipelines, and effects on the Chesapeake Bay.

Algae biomass. An emerging energy technology is the growing of algae and its use as a biomass input for electric power generation, as well as for transportation fuels, and heating and cooling. Commercial algal biomass is not yet in place, but substantial research and demonstration projects have been conducted, including work by Maryland companies. Such facilities might be located in or near Maryland waters or on the lands of the coastal plain. Issues include water discharges (or closed-loop systems), types of algal species, and siting, among others.[10]

Other offshore energy technologies. Development of commercial-scale offshore wave and tidal energy is less likely in the Mid-Atlantic States than on the west coast and further north on the Atlantic coast. Here the energy potential for hydrokinetic (wave and tide) is far less than that of other forms of alternative energy, such as wind power.[11] Ocean thermal energy is also not likely in these waters because the temperature gradients are not sufficient to support commercial generation.

General Overview of State and Federal Jurisdiction

[8] http://energy.maryland.gov/documents/OffShoreREoI91509final.pdf. Responses to the request for information and expressions of interest are due by January 31, 2010. The Request notes that that "the wind resources in Maryland's coastal waters may be among the best in the nation."
[9] http://energy.maryland.gov/documents/offshorewindPR91509final.pdf.
[10] Virginia's Coastal Energy Research Consortium has an ongoing study of the technical and environmental implications of algal biomass energy.
[11] Virginia Coastal Energy Research Consortium (pers. comm. Sept. 2009). VCERC has studied wind and wave potential in the mid-Atlantic coast. There may be some theoretical potential for tidal energy at the Ocean City Inlet, according to Maryland DNR staff, but there are currently no proposals.

Maryland has direct regulatory and management jurisdiction over activities occurring in its own state waters and on its lands and submerged lands. Thus, lands under the Chesapeake Bay, the Atlantic Coastal Bays, and the Atlantic Ocean within three nautical miles of the coastline along Maryland's 32 miles of Atlantic coastline are directly under state jurisdiction and authority; however, certain federal permitting requirements will also apply to specific activities on these lands and waters.

For the Atlantic Ocean outer continental shelf (OCS) beyond the three-nautical-mile limit, the federal government has exclusive jurisdiction. Maryland's ability to affect actions on the federal OCS will depend in substantial part on its participation in federal processes including environmental impact review under the National Environmental Policy Act and federal consistency review provisions of the Coastal Zone Management Act that enable the state to review federal actions outside the state's coastal zone that have effects on land or water uses or natural resources within the coastal zone.[12]

Maryland also retains jurisdiction over the portions of OCS energy projects and their support facilities that are within state waters or lands. Thus, for example, although the federal Minerals Management Service may issue an oil and gas lease or alternative energy (wind or wave) lease on the OCS following environmental impact analysis and coastal consistency, state permitting and approvals may still be needed for shore-based facilities or for pipelines and transmission lines traversing state submerged lands.[13]

Maryland's energy policies affecting electric power distribution within the state, and its renewable energy portfolio standards will also play a role in the types and likelihood of offshore electric generation facilities, and the siting of electric transmission lines within the state. Federal authority applies to energy distribution where interstate electric transmission and interstate natural gas pipelines are involved.

Plan of the Report

This report first identifies federal laws and policies that are likely to affect offshore energy activities, and includes Maryland's interaction with these laws and policies. Then the report identifies interstate policies and institutions likely to affect offshore energy decisions. The longest section of the report addresses Maryland's own laws and policies likely to affect offshore energy, focusing especially on those that deal with permitting, licensing, and standards for review. Finally, the report offers an array of recommendations based on the preceding chapters.

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[12] 42 U.S.C. §4321 et seq. (NEPA); 16 U.S.C. §1456(c)(CZMA). Thus, for example, The CZMA specifically requires any person submitting a plan for exploration, development, or production from the OCS to certify consistency and undergo consistency review. §1456(c)(3)(B).

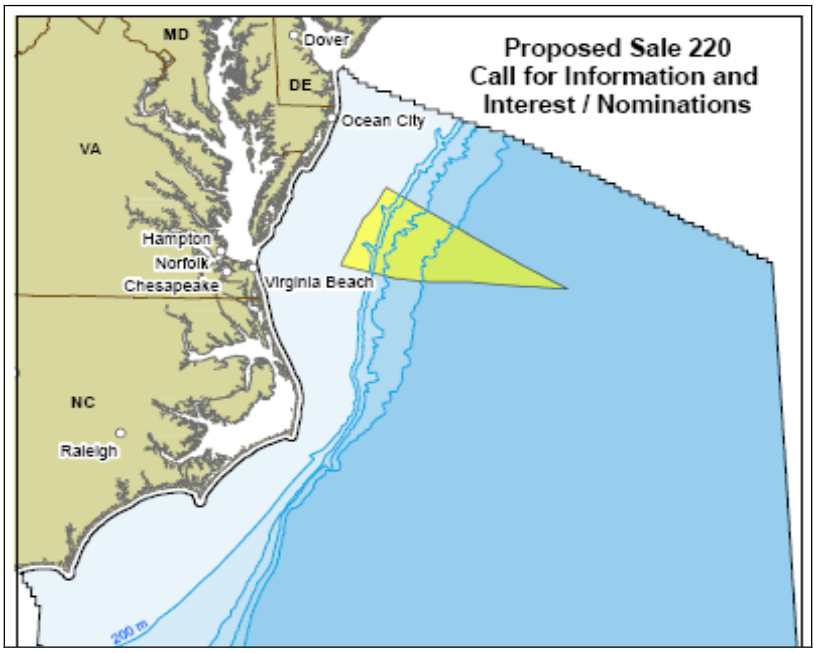
[13] R. Salcido, "Offshore Federalism and Ocean Industrialization," 82 Tul. L. Rev. 1355 (2008) provides a useful discussion of the interplay between federal and state jurisdiction, and considers alternative models of potential collaborative organization and law reform.

Federal Laws and Policies Relevant to Offshore Energy

Federal laws and policies directly affect offshore energy development in federal or state waters. This section briefly identifies the most important of these in the context of offshore planning, siting, and permitting. It does not address all federal regulatory issues related to the energy sector, however, as this is beyond the scope of the current review.

The Outer Continental Shelf Lands Act and the Energy Policy Act of 2005

The Outer Continental Shelf Lands Act (OCSLA) grants the Secretary of the Interior authority to manage the resources of the OCS. [14] Oil and gas exploration, leasing, and development are managed by the Interior Department's Minerals Management Service (MMS), which also oversees the siting and operation of oil and gas pipelines on the OCS.[15] Oil and gas leases can only be offered if they are included in a five-year OCS plan, which is prepared by MMS subject to public comment and environmental impact review. Until recently, a Congressional legislative moratorium prevented new leasing of OCS oil and gas resources off most states including Maryland, but in 2008 this provision was not renewed. An executive order that also established a moratorium was also removed in 2008. The currently applicable 2007-2012 five-year OCS plan includes a potential lease sale in federal waters within an area of 2.9 million acres located fifty or more miles offshore of the Commonwealth of Virginia (and southeast of Maryland's Worcester County).[16]



[14] 43 U.S.C. § 1331 et seq.
[15] 43 U.S.C. § 1334(e).
[16] The MMS issued a Federal Register Notice soliciting identification of areas offshore Virginia to be considered for leasing. 73 Fed. Reg. 67201-67204 (Nov. 13, 2008).

The MMS has launched the process for preparation of the next (overlapping) five year plan, which could include further leases in the mid-Atlantic OCS including up to three lease sales.[17] The plan would cover the period from mid-2010 to mid-2015. The comment period on the draft proposed program ended September 21, 2009, and Maryland and other states and interested parties submitted comments.[18] If MMS proceeds, it will thereafter publish a proposed program, which would also be subject to public comment and environmental review before a final plan could be adopted. MMS has also announced its intention to prepare, subject to funding availability, an environmental impact statement to support geological and geophysical (specifically seismic) testing in the Atlantic OCS in order to support further exploration for oil and gas resources in this region.[19]

The leasing process begins with a Call for Interest and Information/Nominations. An oil and gas lease may be offered for competitive bidding following preparation of an environmental impact statement under the National Environmental Policy Act. If a successful bidder is awarded the lease, the operator must submit an Exploration Plan (EP) before any activities begin. Prior to development or production activity, operators must submit for approval a development plan (DP). At each of these three stages, affected states will have the opportunity to review the action for consistency with their coastal zone management plans.[20]

Section 388 of the Energy Policy Act of 2005 amended the OCSLA to grant the Secretary of the Interior authority to grant leases, easements, or rights-of-way on the OCS for activities that (1) produce or support production, transportation, or transmission of energy from sources *other* than oil and gas, or (2) allow for alternate uses of existing facilities on the OCS.[21] Section 388 also required MMS to issue any necessary regulations to carry out the policies and objectives of the section.[22] In 2007, MMS released a final Programmatic Environmental Impact Statement "in support of the establishment of a program for authorizing alternative energy and alternate use activities on the OCS."[23] On April 29, 2009, MMS published its final regulations for granting leases, easements and rights-of-way for alternative energy projects (such as wind energy and wave energy) and

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[17] Minerals Management Service, Draft Proposed Outer Continental Shelf (OCS) Oil and Gas Leasing Program 2010–2015 (Jan. 2009).

[18] Gov. Martin O'Malley to S. Elizabeth Birnbaum (Sept. 21, 2009). Maryland noted its opposition to offshore oil and gas activities off the coast of Maryland during the proposed 2010-2015 cycle, but indicated that it would reconsider its position for the following cycle subject to new information demonstrating need, compatibility with ecological protection, protection of submarine canyons, and enhanced state revenue sharing opportunities. Maryland expressed its support for "offshore wind energy production and transmission."

[19] 74 Fed. Reg. 3636 (Jan. 21, 2009).

[20] *See* discussion of Coastal Zone Management Act, *infra. See also*

[21] 43 U.S.C. § 1337(p)(1) (2005) (amending 43 U.S.C. § 1337).

[22] 43 U.S.C. § 1337(p)(8) (2005).

[23] *See* Mineral Management Service, U.S. Department of the Interior, OCS Alternative Energy and Alternate Use Programmatic EIS Information Center, *at* http://ocsenergy.anl.gov/ (last viewed Aug. 11, 2008).

for alternate uses of existing facilities located on the OCS.[24] MMS issued guidelines for the OCS renewable energy program in July 2009.[25] The term "renewable energy" is used interchangeably with "alternative energy."

In June 2009, MMS issued five five-year exploratory leases to wind power developers for meteorological towers in federal waters 6-18 miles off the coasts of New Jersey and Delaware to enable them to assess the conditions and wind resources available for potential commercial scale wind power projects. Any commercial wind power projects will, however, need to be leased competitively under the 2009 rules.[26]

Under the regulations for competitive alternative energy leases on the OCS, the MMS may publish a request for interest to determine whether there is commercial interest in a given area. Then MMS will publish a Call for Information and Nominations to launch the competitive lease sale process. If MMS decides to offer leases for exploration and development, it will issue a Proposed Sale Notice and Final Sale Notice, which will lead to submission of bids for the award of lease tracts offered. If a lease is awarded, the winning bidder must prepare and submit for approval a Site Assessment Plan (SAP), and then a Construction and Operations Plan (COP). For a limited lease or a grant of a Right-of-Way (such as a transmission line) crossing an area of the OCS, the applicant will submit a General Activities Plan.[27] Coastal consistency review will occur at each of two stages: (1) the lease sale, and (2) review of the COP or GAP.

The MMS intends to "provide for coordination and consultation" with the governor, or executive of any local government or Indian tribe that may be affected by renewable energy leasing, and may invite them to join in establishing a "task force or other joint planning or coordination agreement."[28] MMS "envision[s] that such task forces could be useful and applicable to any phase of the OCS Alternative Energy Program, from preliminary studies and lease sale formulation, through site assessment and construction, to decommissioning."[29]

There is some provision for revenue sharing of OCS revenues with states, but it is quite limited in geographic scope. The OCSLA requires payment to coastal states of 27 percent of the revenues received by the federal government from OCS energy projects (both oil and gas and alternative) that are located wholly or partially within the area extending 3

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[24] *See* Alternative Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf, 74 Fed. Reg. 19638-198871 (April 29, 2009)(to be codified at 30 C.F.R. Pts 250, 285, and 290).
[25] Minerals Management Service, Guidelines for the Minerals Management Service Renewable Energy Framework (July 2009), available at http://www.mms.gov/offshore/RenewableEnergy/PDFs/REnGuidebook_03August2009_3_.pdf
[26] Dept. of Interior, "Secretary Salazar Announces Five Exploratory Leases for Offshore Wind Energy Development off Coasts of New Jersey and Delaware," (June 23, 2009), available at http://www.mms.gov/ooc/press/2009/press0623.htm
[27] 74 Fed. Reg. 19638-198871 (April 29, 2009). If it determines after a Request for Information that there is no competitive interest, the MMS may proceed with a noncompetitive lease under the rules.
[28] 30 CFR 285.102(e). This joint planning provision is modeled on a similar provision in the regulations for leasing of nonfuel minerals on the OCS.
[29] 74 Fed. Reg. at 19653.

nautical miles seaward of state submerged lands (thus projects at least partially within 6 nautical miles of Maryland's Atlantic shoreline may give rise to state revenues).[30]

The Energy Policy Act of 2005 also vested exclusive jurisdiction in the Federal Energy Regulatory Commission (FERC) over liquefied natural gas (LNG) terminals, either offshore or in state waters, and *preempted* state jurisdiction over the siting of such facilities.[31] This provision of the law does not, however, affect rights of states under the Clean Water Act, Clean Air Act, or Coastal Zone Management Act. The U.S. Court of Appeals for the Fourth Circuit recently struck down a Baltimore County zoning amendment attempting to bar siting of LNG facilities in the critical area because the zoning amendment was not part of Maryland's approved coastal management plan (see Coastal Zone Management Act below).[32] A prior federal court decision struck down a previous Baltimore County ordinance prohibiting LNG terminals except by special zoning exception for violating the Energy Policy Act preemption provision.[33]

Additional energy legislation may be enacted in the next several years, along with possible legislation addressing climate change, siting of transmission corridors, and other issues.

Federal Power Act

FERC has regulatory jurisdiction over wave and tidal (hydrokinetic) energy projects pursuant to the Federal Power Act (FPA).[34] According to Section 23(b)(1) of the FPA, any non-federal hydroelectric project must be licensed by FERC if it is located in a navigable water of the United States; occupies lands of the United States; or is located on a body of water over which Congress has Commerce Clause jurisdiction and the project affects interstate or foreign commerce.[35] FERC applied this provision to find jurisdiction over a proposed wave power project in Washington State waters, determining that its jurisdiction includes marine waters up to 12 nautical miles offshore.[36] FERC subsequently asserted jurisdiction to the full extent of the OCS.

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[30] 43 U.S.C. 1337(p)(2)(B) and (g). Maryland does not qualify for more generous revenue sharing for oil and gas that applies to current Gulf of Mexico states. For alternative energy, there is a division of the state-share revenues among states when an alternative energy project falling within any state's qualifying "8g" area has a geographic center within 15 miles of any state's coastline. If the geographic center falls more than 15 miles outside a state's coastline, however, no revenues go to that state, *even if* part of the project is within 3 nautical miles of its coastline. 30 CFR 285.540-285.543.

[31] 15 U.S.C. § 717(b).

[32] AES Sparrows Point LNG v. Smith, 527 F.3d 120, 125 (4th Cir. 2008).

[33] AES Sparrows Point LNG, LLC v. Smith, 470 F. Supp.2d 586, 601 (D. Md. 2007).

[34] 16 U.S.C. § 12.

[35] 16 U.S.C. §817(1).

[36] FERC relied on Presidential Proclamation No. 5928 (Dec. 12, 1988), which defines the territorial sea as up to 12 nautical miles offshore. FERC also asserted that the statutory definition of a "hydroelectric project" was broad enough to include hydrokinetic projects (i.e., those utilizing wave and tidal energy technologies). The agency further found that portions of the project (including concrete anchors and submarine transmission lines) would be located on submerged federal lands within the boundaries of a marine sanctuary. Finally, the project was determined to require a license as it would be connected to an interstate electric grid. 101 FERC ¶ 62,009 (*Order Ruling on Declaration of Intention and Finding Licensing Required*) (Oct. 3, 2002).

FERC and MMS entered into a Memorandum of Understanding on April 9, 2009 to resolve a potential conflict in jurisdiction over wave and tidal energy projects on the OCS in federal waters. They mutually agreed that MMS has "exclusive jurisdiction to issue leases, easements, and rights-of-way regarding OCS lands for hydrokinetic projects," while FERC licensing and exemptions will also apply to these facilities on the OCS. For projects on the OCS, licensing (or exemption from licensing) by FERC will occur only *after* the MMS has granted the lease, easement, or right-of-way. [37]

FERC has developed licensing procedures and guidelines for preliminary permits and pilot project licenses. In general, an applicant for a license must first seek a preliminary permit from FERC. Preliminary permits are issued for up to three years and grant the developer priority to study a project at a specified site.[38] However, in the April 2009 MOU with the MMS, FERC agreed that it would not issue preliminary permits for hydrokinetic (wave/tidal) projects on the OCS.

FERC is also responsible for overseeing interstate power transmission and wholesale sales of electricity, which it does primarily through the recognition of Regional Transmission Organizations and Independent System Operators.[39] In the Maryland region, PJM Interconnection, LLC (PJM) is the largest electrical grid in North America, and also operates the world's largest competitive wholesale electricity market. PJM was established in 1927 as a power pool by an association of utilities in Pennsylvania, New Jersey and Maryland. In 1997 PJM became an independent entity and, with its own Board of Governors, was renamed PJM Interconnection LLC. On January 1,1998 PJM became the first operational independent system operator and became responsible for the safe and reliable operation of the transmission system in addition to the administration of the competitive wholesale electric power market. Market participants can buy and sell energy, schedule bilateral transactions and reserve transmission service. In December 2002, the FERC awarded PJM full Regional Transmission Organization (RTO) status. Planning the enhancement and expansion of transmission capability on a regional basis is one of the primary functions of an RTO. PJM implements this function pursuant to the Regional Expansion Planning Protocol (RTEP) set forth in Schedule 6 of the PJM operating Agreement. PJM annually develops the Regional Transmission Expansion Plan to meet system requirements for firm transmission service, load growth, and interconnection requests, and other system drivers.[40]

Ocean Thermal Energy Conversion Act

[37] Memorandum of Understanding Between the U.S. Department of the Interior and Federal Energy Regulatory Commission (April 9, 2009).
[38] FERC, "Notice of Inquiry and Interim Statement of Policy: Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects," (Feb. 2007), available at http://www.ferc.gov/whats-new/comm-meet/2007/021507/H-1.pdf. Preliminary permits do not authorize construction. The purpose is to reserve the right of that developer to apply for a license for the project that is being studied.
[39] See generally http://www.ferc.gov/industries/electric/indus-act/rto.asp
[40] http://www.pjm.com/about-pjm.aspx

The OTEC Act of 1980 granted the National Oceanic and Atmospheric Administration (NOAA) authority for licensing the construction, ownership, location, and commercial operation of plants to generate energy from ocean temperature gradients.[41] This grant of authority was left undisturbed by the Energy Policy Act. No license applications have been received by NOAA.

National Oceans Policy Memorandum

On June 12, 2009, President Obama issued a memorandum directing federal agencies to convene an Interagency Ocean Policy Task Force under the leadership of the Council on Environmental Quality. It directed the task force to develop recommendations addressing numerous issues of ocean health and sustainability, a policy framework to coordinate efforts to improve stewardship of the oceans and coasts and Great Lakes, and an implementation strategy. The Memorandum further directed the task force to develop within 180 days "with appropriate public input, a recommended framework for effective coastal and marine spatial planning" using an ecosystem-based approach and addressing conservation, economic activity, user conflict and sustainable use.[42] The September interim report of the task force identified the following proposed national policy objectives: ecosystem-based management, coastal and marine spatial planning, informed decisions and improved understanding, and coordination and support.[43]

This recommended framework, due in December 2009, could influence decisionmaking by federal agencies such as the MMS, FERC, NOAA, the Environmental Protection Agency, and others – particularly if a spatial planning approach emerges that can guide or supplement the fairly limited planning that occurs under specific laws like the OCSLA or the Magnuson-Stevens Act. The Presidential Memorandum does not itself create any new authority or funding commitments.

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act requires the U.S. Army Corps of Engineers to review and authorize by permit any construction, excavation/dredging, or deposition of materials in or over navigable waters, or the obstruction or alteration of navigable waters.[44] If an offshore energy project or its components are located in navigable waters

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[41] 42 U.S.C. § 9111.

[42] Memorandum for the Heads of Executive Departments and Agencies: National Policy for the Oceans, Our Coasts, and the Great Lakes, 74 Fed. Reg. 28591-28592 (June 17, 2009).The multi-cabinet officer Committee on Ocean Policy, established by President Bush through E.O. 13,366 (Dec. 17, 2004) continues.

[43] Council on Environmental Quality, Interim Report of the Interagency Ocean Policy Task Force (Sept. 10, 2009), at 26. The interim proposed national objectives also included five "areas of special emphasis:" resiliency and adaptation to climate change and ocean acidification, regional ecosystem protection and restoration, water quality and sustainable practices on land, changing conditions in the Arctic, and ocean, coastal, and Great Lakes observations and infrastructure.

[44] 33 U.S.C. § 401. A 2003 Massachusetts District Court ruling affirmed the Corps' authority to issue permits on the OCS, holding that the Outer Continental Shelf Lands Act (OCSLA) broadly extended the Corps' authority to grant section 10 permits on the OCS, including "the artificial islands and fixed structures." *See* Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep't of the Army, 288 F. Supp. 2d 64, 72-73 (D. Mass. 2003), aff'd, 398 F.3d 105 (1st Cir. 2005).

of the United States, including state waters, development and construction activities such as the installation of offshore turbines and the transmission cable would be subject to review and permitting under Section 10.[45] The OCSLA extends this permitting jurisdiction of the Corps of Engineers to the full seaward limit of federal jurisdiction (ordinarily the 200-mile Exclusive Economic Zone).[46]

Clean Water Act

The federal Clean Water Act contains several regulatory provisions relevant to offshore energy projects.

Section 404 of the Clean Water Act requires a permit from the Corps of Engineers for any projects that require the "discharge of dredged or fill material into navigable waters."[47] The construction and operation of an offshore facility may involve dredging and filling for facilities that connect the offshore transmission cable with the onshore electric grid.[48] Excavation of subaqueous lands in state waters, such as excavations for the placement of turbines or cables or pipelines in the Chesapeake Bay or Coastal Bays or within the 3-mile limit will require a federal permit under section 404.

Section 303 of the Clean Water Act requires states to establish and review water quality standards for all water bodies within their borders.[49] The water quality standards program must designate uses for a water body; set water quality criteria (the maximum concentration of pollutants that may occur in water bodies without impairing attainment or maintenance of a designated use); and establish a policy to prevent the degradation of existing designated uses.[50] States are required to identify impaired waters and may be required by the EPA to prepare (or EPA will prepare) Total Maximum Daily Loads allocations to ensure that impaired waters will be restored to compliance with water quality requirements and designated uses.

Section 401 of the Clean Water Act requires states to review federal actions – including federal permits and licenses like Corps of Engineers 10/404 permits, and MMS approvals of Construction and Operations Plans – and to certify that they will not violate state water

[45] *See* 33 U.S.C. § 401 (1983). "…it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor or refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same."
[46] 43 U.S.C. § 1333(e).
[47] 33 U.S.C. § 1344.
[48] Mineral Management Service, U.S. Department of the Interior, Cape Wind Energy Project Draft Environmental Impact Statement 5-12 (Jan. 2008).
[49] *See* 33 U.S.C. § 1313.
[50] *See* 33 U.S.C. § 1313; 40 CFR 131.6.

quality standards.[51] The Maryland Department of the Environment (MDE) conducts the 401 review of federal actions according to water quality standards adopted by the state.[52] It is important to have standards in place that enable the state to address all waters and potential uses of waters that may be adversely affected by federal actions and permits. The U.S. Court of Appeals for the Second Circuit recently upheld Connecticut's denial of a 401 water quality certification for a plan to build a natural gas pipeline across Long Island Sound based on the state's concerns for impacts of drilling and dredging on marine fish and aquatic life reflected in Connecticut water quality standards.[53] Thus §401 certification operates as a potential check on federal approvals if relevant water quality standards are in place.

Section 402 requires that the discharge of any pollutant into waters of the United States from a point source be authorized by a National Pollutant Discharge Elimination System (NPDES) permit,[54] including control of stormwater from construction projects.[55] Maryland administers the NPDES permit program in the state under delegation from the federal Environmental Protection Agency, so permitting for discharges into state waters would be by the Maryland Department of the Environment. Construction of the proposed transmission line onshore from the planned Cape Wind offshore project in Massachusetts requires an NPDES permit, for example.[56] Under this permit, the construction manager is required to create a Storm Water Pollution Prevention Plan and lay out the Best Management Practices that will minimize water pollution from the construction area.[57]

National Environmental Policy Act

The federal National Environmental Policy Act (NEPA) requires federal agencies to undertake a comprehensive assessment of any "major federal action significantly affecting the quality of the human environment."[58] This includes federal leases, permits, funding and other approvals as well as actions taken directly by the federal government. Federal agencies must prepare an environmental impact statement (EIS) detailing the impacts of the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, alternatives to the proposed action, the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources involved in the proposed action should it be implemented.[59]

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[51] 33 U.S.C. § 1341.
[52] The Maryland Department of the Environment denied §401 water quality certification on April 24, 2009, for Corps of Engineers permitting and FERC licensing of the AES Sparrows Point LNG facility based on "insufficient" information to determine that the state's water quality standards would not be violated. The denial is being litigated.
[53] Island East Pipeline Co. v. McCarthy, Docket No. 06-5764-ag (2d Cir. May 2, 2008).
[54] 33 U.S.C. § 1342, 40 C.F.R. § 122.1(b).
[55] 40 C.F.R. § 122.26(b)(15)(i).
[56] *See* Cape Wind Energy Project Final Environmental Impact Report/Development of Regional Impact 8-3 (Feb. 15, 2007), *available at* http://www.capewind.org/downloads/feir/FEIR%20Report_Final.pdf.
[57] 40 CFR § 122.26(c).
[58] 42 U.S.C. §§ 4332.
[59] 42 U.S.C. § 4332(C). The Council on Environmental Quality regulations provide for the preparation of an Environmental Assessment (EA) if it is uncertain whether an EIS will be needed, and EAs resulting in

NEPA is triggered by any major federal action, including a federal oil and gas or alternative energy lease on the OCS, or permit under the Rivers and Harbors Act or §404 of the Clean Water Act. For offshore oil and gas and alternative energy projects on the OCS, MMS is the lead agency for purposes of NEPA. If an EIS is required, the lead agency will hold a scoping meeting to identify issues and then will prepare a draft EIS, accept public comments, and prepare a final EIS. MMS has indicated that for competitive commercial leases for alternative energy on the OCS there will be two successive NEPA reviews – one for the lease sale and site assessment plan, and another for the construction and operations plan.[60]

Any person, including states or state agencies, may comment on scoping and on draft EISs. Under Council on Environmental Quality regulations implementing NEPA, states and Indian tribes may also seek to become "cooperating agencies," which allows them more continuous access to the review process and ongoing evaluation being conducted by the federal "lead agency" responsible for preparing the EIS.[61]

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) encourages coastal states to implement state coastal zone management programs (CZMP) with two main incentives: (1) sustained funding via a federal grant program administered by NOAA and (2) the use of "federal consistency" as a management and oversight tool.[62]

Federal consistency is the authority granted to the state under Section 307 of the CZMA to review federal actions to determine their compliance with the state's approved coastal zone management program. The federal consistency process authorizes Maryland to review federal actions that have a reasonable foreseeable effect on its coastal resources and uses in order to ensure that such activities are consistent "to the maximum extent practicable." Federal actions include:

1. Federal activities (e.g., Department of Defense development project, or an MMS lease sale for oil and gas or alternative energy on the OCS);
2. Federal licenses, permits or other regulatory approvals (e.g., a Federal Energy Regulatory Commission license or a Corps of Engineers §10 or §404 permit);
3. Federal financial assistance to state and local governments (e.g., funding for a wastewater treatment plant or a highway).[63]

Findings of No Significant Impact (FONSIs) are frequently used to determine not to prepare an EIS. 40 CFR 1501.3, 1508.9. However, given the unprecedented nature of the energy activities contemplated on the mid-Atlantic OCS, it is virtually certain that an EIS will be required for nearly all actions beyond very minimal information collection activities.

[60] 74 Fed. Reg. at 19685, 19689-90. For alternative energy commercial leases MMS anticipates preparing an EIS for the lease sale and site assessment "to include the SAP activities." MMS also anticipates that "initially, all commercial development projects will require an EIS for the COP." Id.

[61] 40 C.F.R. 1501.6, 1508.5.

[62] 16 U.S.C. §§ 1455, 1456.

[63] See generally, 15 CFR Part 930, Subparts C-F.

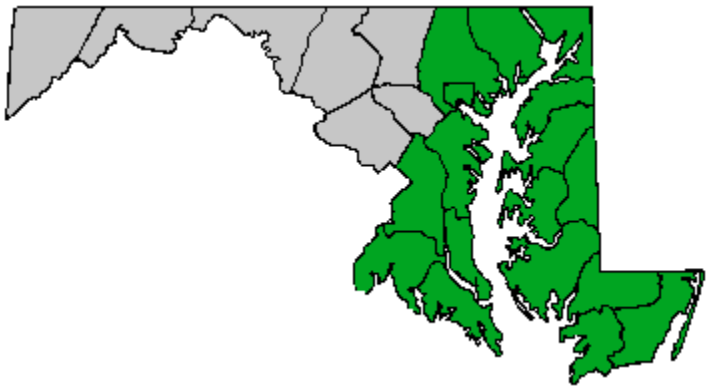
Under the CZMP the state creates "enforceable policies" including "state polices which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions, by which a State exerts control over private and public land and water uses and natural resources in the coastal zone."[64] If Maryland determines that a proposed federal action is not consistent with the enforceable policies of its approved program, the applicant or federal agency is prohibited from conducting the activity, subject to further mediation, review and other provisions discussed below.

State enforceable policies are recognized for federal consistency review purposes only if they have been duly submitted to NOAA for review and have been approved as part of the CZMP. Maryland is currently consulting with NOAA to update, clarify, and make publicly accessible its approved enforceable policies.

States with approved CZMPs have authority to review any federal project or application for a federal permit or license that may affect the coastal zone. Offshore activities on the OCS, for example, may affect the coastal zone through water pollution, air pollution, noise pollution, and a variety of other mechanisms, and are subject to consistency review.[65]

Maryland's coastal program is a networked program established by executive order and was approved by NOAA in 1978. Maryland's coastal zone extends to the inland boundary of the 16 counties bordering the Atlantic Ocean, the Chesapeake Bay, and the Potomac River (as far as the municipal limits of Washington, D.C), and includes Baltimore City and all local jurisdictions within the counties.[66]

Maryland's Coastal Zone



[64] Coastal Zone Management Act Federal Consistency Regulations, 71 Fed. Reg. 788, 789 (Jan. 5, 2006).
[65] *See* Minerals Management Service, U.S. Department of the Interior, Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf 5-27 (Oct. 2007).
[66] These are the same counties and municipalities covered by Maryland's Chesapeake and Atlantic Coastal Bays Critical Areas Program, discussed below, although the critical area covers only a subset of the municipalities.

Section 307 federal consistency determinations will be needed for alternative energy and oil and gas leasing and development on the OCS. The MMS has recently concluded that two successive consistency reviews will occur for alternative energy projects on the OCS – one for the lease sale and Site Assessment Plan (SAP), and another for the Construction and Operations Plan (COP).[67]

For direct federal actions, like OCS lease sales, the federal agency must provide Maryland a consistency determination and supporting materials. The state has the opportunity to concur or object to the federal determination within 60 days. If the state objects to consistency for a direct federal action, the federal agency may not proceed unless it determines that, and explains how, federal law prohibits the federal agency action from being fully consistent.[68] Mediation by the Secretary of Commerce may be used if there is a dispute.[69]

For activities requiring federal permits or licenses, including plans for exploration, development, and production of energy from an OCS lease, or applications for Corps of Engineers permits, a similar approach is used. Here the applicants provide Maryland a certification of consistency and supporting data and the state has three months, with a three month extension, to concur, issue a concurrence with conditions, or object.[70] However, determination by a state that a federal license or permit action is inconsistent with the approved Coastal Zone Management Plan may be *overturned* by the Secretary of Commerce upon a finding that the activities to which the state has lodged the objection are either consistent with the objectives of the CZMA or are otherwise necessary in the interest of national security.[71]

The Chesapeake and Coastal Programs Division of Maryland Department of Natural Resources (DNR's) Watershed Services Unit serves as the lead agency for Maryland's coastal zone management program.[72] As a network partner, the Wetlands and Waterways Program within the Maryland Department of the Environment (MDE's) Water

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[67] 74 Fed. Reg. at 19690 (April 29, 2009). Also competitive lease sales will be "federal actions" for consistency review, and noncompetitive lease sales will be treated as nonfederal activities requiring a federal "license or permit."74 Fed. Reg. at 19652 (April 29, 2009).

[68] 15 C.F.R. 930.32(a)(1) (defining what it means that the action must be consistent "to the maximum extent practicable.") 16 U.S.C. § 1456(c)(1)(A), (2).

[69] 16 U.S.C. §§ 1456(c), (h). If a federal court order finds that federal agency activity is not in compliance, nevertheless, the President may exempt those elements of the action found to be inconsistent if the President determines them to be in the "paramount interest of the United States."

[70] 15 CFR Part 930, subparts C, D,E.

[71] 16 U.S.C. § 1456(c)(3). NOAA regulations provide that a project is "consistent with the objectives" of the CZMA if it satisfies all three regulatory elements required for such a finding: (1) the activity furthers the national interest, as set forth in CZMA sections 302 or 303, in a significant or substantial manner; (2) the national interest furthered by the activity outweighs the activity's adverse coastal effects, when those effects are considered separately or cumulatively; and (3) there is no reasonable alternative that would permit the activity to be conducted in a manner consistent with the enforceable policies of the state's coastal management program.15 C.F.R. 930.121(a)-(c). The Secretary made such a finding in overruling Maryland's determination of inconsistency with respect to the Sparrow's Point LNG facility in a decision issued June 26, 2008. Consistency Appeal of AES Sparrows Point LNG, LLC and Mid-Atlantic Express, LLC, from an Objection by the State of Maryland.

[72] http://www.dnr.maryland.gov/bay/czm/about_czm.html

Management Administration conducts the *consistency review* under the federal CZMA to determine consistency of federal actions and permits with Maryland's approved enforceable policies. Under Maryland practice, if a state-issued permit addresses the coastal zone management issues of concern, the state permit decision serves as the state's consistency determination.[73]

Under NOAA's consistency regulations, state coastal zone management agencies are "strongly encouraged to *list* in their management programs Federal agency activities which…will have reasonably foreseeable coastal effects and therefore may require a Federal agency consistency determination."[74] Listed federal agency activities "shall be described in terms of the specific type of activity involved" and if outside the state's coastal zone (e.g. in federal waters or waters of another state), the state "shall also describe the geographic location of such activities."[75]

Maryland's "list" is found in the state's original Coastal Zone Program Document from 1978 and has not been updated since that time. It identifies OCS leases and pre-lease activities, designation of marine sanctuaries, and fisheries management plans, among others as actions that will generally "directly affect" the coastal zone, even though conducted in federal waters. It specifically includes permits and licenses for activities outside the coastal zone if:

- they apply to activities *related to* Outer Continental Shelf (OCS) exploration, development or production,
- they apply to *any other* type of development activity on the OCS;…or
- they apply to activities occurring in close proximity to the coastal zone and would lead to significant impact on land and water use pattern or on air quality within the coastal zone, or would lead to requirements for *major new facilities* within the coastal zone.[76]

This language is written broadly enough to apply to alternative energy facilities and related activities, and not just to OCS oil and gas. However the specific permits and federal agencies listed in Table VI-5 "Federal Licenses and Permits Subject to Consistency Review" are outdated and incomplete.[77] The list of federal assistance grants and subsidies is also not up to date, and refers only to activities described in "actions landward of the coastal zone."[78]

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[73] Maryland Department of the Environment, *A guide to Maryland's Coastal Zone Management Program Federal Consistency Process* (2004), *available at* http://www.dnr.maryland.gov/bay/czm/fed_consistency_guide.pdf

[74] 15 CFR 930.34(b). Similar requirements apply to federal license and permit activities that the state agency wishes to review for consistency. 15 CFR 930.53. This latter requirement particularly applies to OCS plans and related license or permit activities on the OCS. 15 CFR 930.74.

[75] 15 CFR 930.34(b).

[76] Maryland Coastal Program Document, at 345, 349

[77] For example, the references are to pipelines on the OCS but not electric transmission ROW or RUE, and the federal agencies listed include the Bureau of Land Management and U.S. Geological Survey, even though the relevant responsibilities were transferred to the MMS decades ago. Maryland Coastal Program Document, at 353, Table VI-5. *See also, Id.*at 357 ("pipeline corridor rights-of-way" "permits to drill"). Coverage for pipelines and transmission corridors running solely in federal waters and not coming ashore via Maryland waters (e.g. connecting facilities off other states) is not clearly addressed either. *Id.*

[78] *Id*. at 359. *And see* Table VI-6.

Interstate consistency is a form of consistency review in which federal action in one state will affect uses or resources in the coastal zone of another state. The latter state may conduct consistency review if it has previously identified the relevant activities and geographic locations subject to interstate consistency, demonstrated the reasonably foreseeable effects on its coastal zone, and has received approval from NOAA for the list.[79] This list is submitted to and reviewed by NOAA as a routine program change. Activities dealing with excavation for underwater cables, or placement of energy facilities in state waters offshore of Delaware or Virginia might be the sort of activity that could affect Maryland's coastal zone sufficiently to warrant consideration of such a listing. Maryland has not undertaken any form of interstate consistency listing.

NOAA has provided a conceptual map showing the consequences of listing or not listing permit activities, geographic locations, and interstate consistency.[80] Note that federal agencies are still responsible for submitting consistency determinations for direct federal actions, regardless of listing, if the federal agency itself finds its actions will affect coastal uses or resources.[81]

The CZMA also contains a grant program for projects that address one or more of nine objectives for enhancements to coastal management.[82] One of these is "Planning for the use of ocean resources."[83] The 2006 Assessment for the coastal zone enhancement grants program in Maryland found that this had a "high priority" for Maryland, and observed that "[a]t this stage, given a general lack of ocean planning efforts, Maryland is proposing to develop a framework for future ocean planning efforts" that will be necessary in order to "some day establish an ocean resource management plan."[84] Another authorized enhancement objective is "adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and government facilities and energy-related activities…which may be of greater than local significance."[85] Maryland's 2006 Assessment found "no significant gaps" and identified this as a "low" priority for enhancement strategies for 2006-2010.[86] Given federal legal and policy developments as well as investments since that time affecting both alternative energy and potential oil and gas leasing on the mid-Atlantic OCS, this may assume a higher priority for the next period.

The CZMA also recognizes the value of a Special Area Management Plan (SAMP) to address natural resource protection and reasonable coastal-dependent economic growth in

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[79] 15 CFR Part 930, subpart I; 930.154. "A coastal state that fails to list federal activities subject to interstate review, or to describe the geographic location for these activities … may not exercise its right to review activities occurring in other states, until the state meets the listing requirements." Id.
[80] http://coastalmanagement.noaa.gov/consistency/media/license_permit_map.pdf
[81] 15 CFR 930.34(c), 930.155(a).
[82] 16 U.S.C. § 1456b.
[83] 16 U.S.C. § 1456b(a)(7).
[84] Maryland Coastal Zone Management Program, 2006 CZMA § 309 Assessment and Strategy, at 59.
[85] 16 U.S.C. § 1456b(a)(8)
[86] Maryland Coastal Zone Management Program, 2006 CZMA § 309 Assessment and Strategy, at 49-50.

designated geographic areas of the coastal zone.[87] Maryland has not used the SAMP process, although it does have an essentially equivalent plan for the Maryland Coastal Bays (see below, Coastal Bays). In 2008, the Rhode Island Coastal Resources Management Council proposed the development of a SAMP focused on offshore renewable energy. The SAMP is intended to zone comprehensively a 36 by 25 nautical mile stretch of ocean off the coast of Rhode Island that includes most, if not all, state marine waters as well as federal waters.[88] Since Rhode Island does not have authority beyond its three miles of state waters, planning for federal waters would require cooperation from relevant federal agencies to have any effect. By identifying current and expected uses of those ocean waters, ecologically sensitive and significant areas, and the windiest stretches of that region, the SAMP is expected to define preferred sites for offshore wind development, among other uses.[89] The Ocean SAMP will result in a zoning map for offshore waters that will identify the location of certain uses, including energy facilities, accounting for environmental concerns and potential conflicts, and will specify design and construction rules for the offshore energy production projects.[90] The SAMP is expected to be completed in 2010.[91]

It is possible that the CZMA will be legislatively revised and reauthorized in the next several years, adding new programs addressing sea level rise, coastal protection, marine spatial planning, and potential additional programs administered by NOAA.

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

The MBTA makes it unlawful to "pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird [protected under the four treaties]."[92] The MBTA attaches strict liability to the killing of a protected migratory bird and thus, offshore energy developers should avoid project locations where they may become liable.[93] The BGEPA prohibits the taking of any bald eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof, and imposes both civil and criminal penalties.[94]

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[87] 16 U.S.C. §§ 1453(17), 1456b(a)(6).
[88] Timothy C. Barmann, Mapping the ocean: SAMP will target areas for renewable energy projects, Providence Journal, July 24, 2008, *at* http://www.projo.com/news/content/bz_ocean_samp18_07-24-08_8BAT7HN_v13.31a3bbf.html.
[89] *See* R.I. Coastal Res. Mgmt. Council & Univ. of R.I., The Ocean/Offshore Renewable Energy Special Area Management Plan (2008).
[90] *Id*.
[91] *Id*. at i.
[92] 16 U.S.C. § 703(a).
[93] 16 U.S.C. § 707(a). "[A]ny person, association, partnership, or corporation who shall violate any provisions of said conventions or of this subchapter, or who shall violate or fail to comply with any regulation made pursuant to this subchapter shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not more than $15,000 or be imprisoned not more than six months, or both."
[94] 16 U.S.C. § 668.

Marine Mammal Protection Act

The MMPA was established to maintain "optimum sustainable populations" of marine mammals.[95] It prohibits the taking of marine mammals, including their harassment.[96] Three of the prominent risks assessed in the Cape Wind Project off Nantucket were possible vessel strikes, acoustic injuries, and disturbance of migratory patterns from the increased travel of vessels during construction. The Cape Wind Project found that the likelihood of direct or indirect harassment from vessel collisions and acoustic noise or disturbance of migration was low, because the site of the project and the transportation vessel routes were not areas with high concentrations of marine mammals nor would the vessels be moving at dangerous speeds.[97]

Endangered Species Act

Section 9 of the ESA makes it illegal to "take [listed] species within the United States or the territorial sea of the United States."[98] Section 7 requires federal agencies to "consult" with the Department of Interior's Fish and Wildlife Service (FWS) and/or the Department of Commerce's NOAA National Marine Fisheries Service (NMFS) (depending on species), to insure that any action authorized, funded, or carried out by the action agency is not "likely to jeopardize the continued existence of [listed species]…or result in the destruction or adverse modification" of critical habitat.[99] Both agencies are responsible for working with other agencies to plan or modify federal projects so that they will have minimal impacts on listed species and their habitats. The ESA commands all other federal agencies to comply with its provisions, even where such protection conflicts with the agency's primary responsibility.[100] These risks occur both in the construction phase as well as in the operational phase of the offshore energy project and should be factored in when thinking of the lifespan of the project. Section 7 is likely to apply to offshore energy projects, and may require modification of the project, mitigation, and other actions if the project is to proceed with a finding of no jeopardy.

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[95] 16 U.S.C. § 1361(6).

[96] *See generally* 16 U.S.C. §§ 1361-1407. Harassment is defined under the MMPA to include "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal . . . or disrupt behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering." 16 U.S.C. § 1362(18)(A) (2003).

[97] *See* Cape Wind Energy Project Final Environmental Impact Report/Development of Regional Impact 3-122, 3-132 (Feb. 15, 2007), *available at* http://www.capewind.org/downloads/feir/FEIR%20Report_Final.pdf.

[98] 16 U.S.C. § 1538(a)(1)(B). Under the ESA, "the term 'take' includes to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19).

[99] 16 U.S.C. § 1536.

[100] *See* 16 U.S.C § 1531(c)(1); *see also* 16 U.S.C § 1536 (requiring that "[e]ach Federal agency, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency is [un]likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee," while employing the best scientific and commercial data available).

Section 10 of the ESA provides FWS and NOAA authority to issue an "incidental take permit" and to allow "otherwise lawful state or private actions that would result in the incidental taking of listed species."[101] A Habitat Conservation Plan (HCP) must be approved to support an incidental take permit.[102] During this process, the public must be given the opportunity to comment on both the submitted permit and the HCP.[103] Developers considering an offshore energy project may find it necessary to apply for an incidental take permit, particularly for onshore activities not triggering a federal approval prior to proceeding with construction.

Fish and Wildlife Coordination Act

This Act requires all federal agencies and departments, or any public or private agency with a federal permit or license, to consult FWS, DOI, and with the state agency with authority over wildlife resources whenever "the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose."[104] The Act further requires the Secretary of the Interior to submit a report that outlines the possible damage to wildlife resources from the proposed project, the measures that should be adopted to prevent the loss of or damage to wildlife resources, and an estimation of the wildlife benefits or losses resulting from the project.[105] If the construction of a wind power turbine or the laying of transmission cables is deemed to divert or modify federal waters, this Act may apply.

Magnuson-Stevens Fishery Conservation and Management Act

The "Essential Fish Habitat" provisions of the Magnuson-Stevens Act require federal agencies to consult with NOAA to avoid impairing designated areas necessary for spawning, breeding, feeding or growth to maturity of marine fish species.[106] NOAA notes that "Essential Fish Habitat can consist of both the water column and the underlying surface (e.g. seafloor) of a particular area." Essential Fish Habitats have been identified for a number of species by the Mid-Atlantic Fishery Management Council, of which Maryland is a member.[107] (More information on Magnuson-Stevens is presented in the discussion of interstate fisheries councils).

National Marine Sanctuaries Act

The Act prohibits destruction or injury to designated marine sanctuaries and requires consultation with NOAA on federal agency actions likely to destroy, injure, or cause the loss of any sanctuary resource.[108] No national marine sanctuaries have yet been

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[101] 16 U.S.C. § 1539(a)(1)(B)
[102] 16 U.S.C. § 1539(a)(2)(A).
[103] 16 U.S.C. § 1539(a)(2)(B).
[104] 16 U.S.C. §§ 661-666 § 662(a).
[105] 16 U.S.C. §§ 662(b), (f).
[106] 16 U.S.C. § 1855(b); 50 CFR 600
[107] http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/GIS_inven.htm.
[108] 16 U.S.C. § 1431 et seq.

designated off Maryland's coast. Designations may be made by the Secretary of Commerce to promote comprehensive management of their special conservation, recreational, ecological, historical, research, educational, or aesthetic resources. Congress may legislatively create national marine sanctuaries; and the president can create equivalent sanctuaries by designating marine National Monuments under the Antiquities Act.

Marine Protection, Research, and Sanctuaries Act

The Marine Protection, Research, and Sanctuaries Act, also known as the Ocean Dumping Act, prohibits the dumping into the ocean of material that would unreasonably degrade or endanger human health or the marine environment.[109] A permit from EPA is required, or if dredged material, from the Corps of Engineers.

National Historic Preservation Act

The NHPA can affect development by requiring federal agencies to take into account the effects that actions will have on items or sites listed, or eligible for listing, in the National Register of Historic Places.[110] In particular, federal agencies will need to determine, in coordination with state historic preservation officers, the effects that a proposed development will have on historic sites where the development is built, funded, or (as in the case of offshore energy facilities) permitted by a federal agency.[111]

Federal Aviation Administration

14 C.F.R. Part 77 requires notice of any proposed construction or alteration of any object that would affect the navigable airspace of aircraft. FAA conducts Aeronautical Studies for the turbine locations to assess impact on aeronautical safety.[112] FAA assessments of the Cape Wind project included whether the project would introduce physical, electromagnetic, or line of sight interference with existing or proposed air navigation, communications, radar, or control system facilities, as well as whether the Project would result in an adverse impact upon air traffic operations, airport efficiency, runway length, or airport traffic patterns.[113] Each wind turbine may require the installation of FAA recommended lighting.[114] Depending on the height and siting of a proposed offshore energy project, notice to the FAA may be required, and the FAA may conduct

[109] 33 U.S.C. § 1401 et seq.
[110] *See generally* 16 U.S.C. § 470.
[111] 16 U.S.C. § 470(f)
[112] *See* Cape Wind Energy Project Final Environmental Impact Report/Development of Regional Impact 3-333 (Feb. 15, 2007), *available at* http://www.capewind.org/downloads/feir/FEIR%20Report_Final.pdf.
[113] U.S. Army Corps of Engineers, Draft Environmental Impact Statement/Environmental Impact Report/Development of Regional Impact 5.12 *available at* http://www.nae.usace.army.mil/projects/ma/ccwf/section1.pdf.
[114] U.S. Army Corps of Engineers, Draft Environmental Impact Statement/Environmental Impact Report/Development of Regional Impact 5.12 *available at* http://www.nae.usace.army.mil/projects/ma/ccwf/section1.pdf.

Aeronautical Studies to assess aeronautical safety of the proposed offshore energy development project.[115]

Coast Guard Review

33 C.F.R. Parts 62, 64, and 66 authorize the Coast Guard to determine whether facilities on navigable waters would obstruct or create a hazard to navigation. In addition, the District Commander of the Coast Guard is permitted to recommend and require markings, lights, and other navigational tools to provide for safe navigation. The Cape Wind project proposed for Massachusetts sought permits from the Coast Guard for the establishment and operation of a Private Aid to Navigation (PATON) to a fixed structure.[116] The use of vessels in construction and transport of materials and workers to offshore energy projects will require the use of navigable waterways regulated by coast guard vessels.[117] Additionally, because offshore energy projects will likely create an obstruction in navigable waters, the Coast Guard will have jurisdiction to provide required recommendations.

There are also provisions for designation of maritime security areas,[118] and "regulated navigation areas and limited access areas," which protect things like LNG terminals, harbors, bridges, and specific areas of the coast and Chesapeake Bay from vessel traffic and certain practices.[119]

Navy Operations

Military uses of Atlantic and Chesapeake waters also create issues for consideration. The Patuxent River Naval Air Station (NAS Pax River) serves as a major national training and testing facility and Headquarters of the Naval Air Systems Command. Operations include the U.S. Naval Test Pilot School; and the Naval Air Warfare Aircraft Division. Training, testing, radar and electronic systems may be affected by some wind generation facilities and other potential uses of Chesapeake and Atlantic waters. The Navy notes that "the Chesapeake Test Range consists of selected targets and airspace covering regions over the Chesapeake Bay, Maryland, Delaware and Virginia. Additional air/sea space is

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[115] *See* 14 C.F.R. § 77.23 (1995). Triggering heights include: (1) A height of 500 feet above ground level at the site of the object; and (2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet. 14 C.F.R. § 77.23 (1995).

[116] *See* Cape Wind Energy Project Final Environmental Impact Report/Development of Regional Impact Table 1-2 (Feb. 15, 2007), *available at* http://www.capewind.org/downloads/feir/FEIR%20Report_Final.pdf.

[117] *See* Cape Wind Energy Project Final Environmental Impact Report/Development of Regional Impact Table 3-85 (Feb. 15, 2007), *available at* http://www.capewind.org/downloads/feir/FEIR%20Report_Final.pdf.

[118] 33 CFR 101 et seq.

[119] 33 CFR Part 165, especially 165.500-.512.

available in the Atlantic Warning Areas, located east of the Delmarva Peninsula over the Atlantic Ocean."[120]

Assateague Island National Seashore

A large portion of Maryland's Atlantic Coast is protected under federal ownership as Assateague Island National Seashore. As a unit of the National Park System, this barrier island is managed to conserve "unimpaired" its values for the enjoyment of future generations.[121] It consists of "the area within Assateague Island and the small marsh islands adjacent thereto, together with the adjacent water areas not more than one-half mile beyond the mean high waterline of the land."[122]

Coastal Barrier Resource Act

The purpose of the Act, among other things, is to minimize the damage to fish, wildlife, and other natural resources associated with the coastal barrier islands along the Atlantic and Gulf Coasts. The Act restricts future federal expenditures and financial assistance (including contract, loan, grant, cooperative agreement, or other assistance) that encourages the development of coastal barriers.[123] The Act establishes a Coastal Barrier Resources System, consisting of undeveloped coastal barriers and other areas on the coastal U.S. as identified on maps on file with the Secretary of the Interior, and prohibits the direct or indirect federal funding of various projects in these areas that might support development.[124] Thus, federal support for funding for a wind turbine project, for example, at a location listed as an undeveloped coastal barrier in the System might be prohibited. However, the Act provides for limited exceptions, including allowing funding after consultation with the Secretary, for "any use or facility necessary for the exploration, extraction, or transportation of energy resources which can be carried out only on, in, or adjacent to a coastal water area because the use or facility requires access to the coastal water body," which might allow federal support for offshore and coastal energy facilities even on parts of the system.[125]

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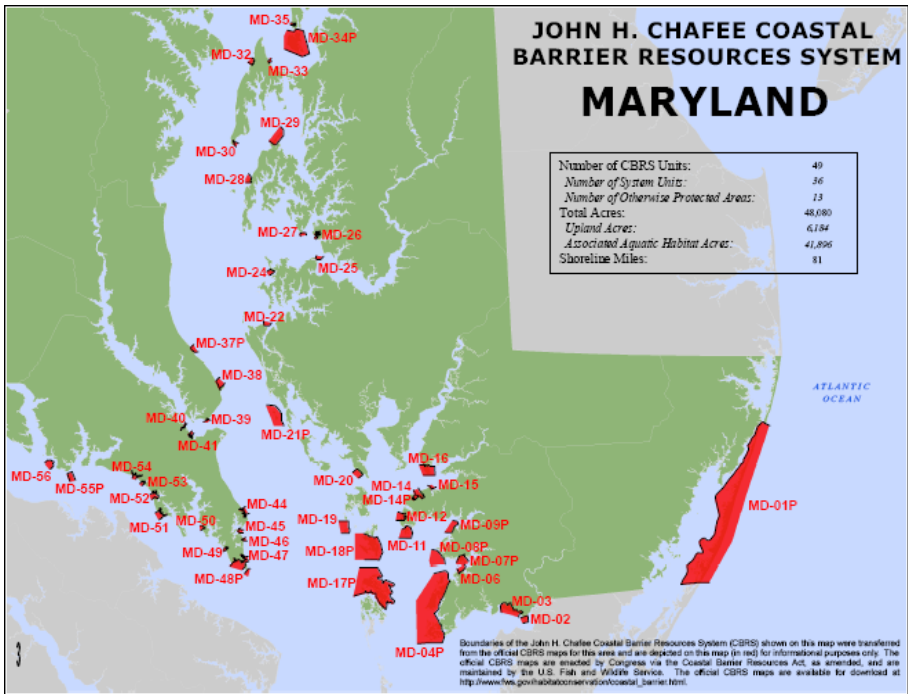
[120] http://www.navair.navy.mil/ranges/atr/index.htm. Navair's Atlantic Test Ranges control "an aerial firing range and two exclusive-use surface target areas in the Chesapeake Test Range restricted areas." And NASA's Wallops Island Facility is also linked to these activities.
[121] 16 U.S.C. § 1. See 16 U.S.C. §§ 459f – 459f-11. Regulations for Assateague are found at 36 CFR 7.65.
[122] 16 U.S.C. § 459f.
[123] 16 U.S.C. § 3501(b).
[124] 16 U.S.C. §§ 3501-3506.
[125] 16 U.S.C. § 3505(a)(1).



Clean Air Act

The Clean Air Act grants EPA the responsibility for regulating emissions from OCS sources. An OCS source is defined to include any activity, facility or equipment that is regulated under the OCSLA and located on the OCS.[126] Vessels that are permanently or temporarily attached to the seabed or physically attached to an OCS facility are considered a source.[127] Standards for sources located within 25 miles of the seaward boundary of Maryland must be the same as "state and local requirements for emission controls, emission limitations, offsets, permitting, monitoring, testing, and reporting."[128] New OCS sources are required to meet such standards within 24 months. During construction, operation and decommissioning stages of an OCS energy project, emissions from vessels traveling to and the facilities on the OCS may be subject to permitting under the Act.

Within Maryland, the MDE is responsible for permitting of facilities subject to the Clean Air Act, which may include a variety of facilities including pipelines, transportation terminals, biomass facilities, and others.

[126] 42 U.S.C. § 7627(a)(4)(C).
[127] 42 U.S.C. § 7627(a)(4)(C).
[128] 42 U.S.C. § 7627(a)(1).

Interstate Programs

Mid-Atlantic Governors' Agreement on Ocean Conservation

On June 4, 2009, the states of Maryland, New Jersey, New York, Delaware, and Virginia signed an agreement to work together toward a regional approach in the ocean and coastal environment. One of the four priorities identified in the agreement is to "collaborate on a regional approach to support the sustainable development of renewable energy in offshore areas." The agreement affirms that "as numerous State and regional initiatives advance" they should be supported by a "coordinated effort to provide a predictable regulatory framework that is based on an enhanced scientific understanding of the impacts of energy development on coastal and ocean resources." The agreement aims at reducing conflicts among states, and embracing a "more comprehensive and ecosystem-based approach to the management of human activities" affecting the ocean environment. The agreement establishes a "Mid-Atlantic Regional Council on the Ocean" (MARCO) to develop and implement coordinated and shared activities.[129]

The MARCO agreement designates four "initial priorities for shared action to improve ocean health":

- Coordinate protection of important habitats and sensitive and unique offshore areas on a regional scale.
- Promote improvements in the region's coastal water quality as a necessary focal point for regional action.
- Collaborate on a regional approach to support the sustainable development of renewable energy in offshore areas.
- Prepare the region's coastal communities for the impacts of climate change on ocean and coastal resources.

MARCO subsequently developed a set of "Actions, Timelines, and Leadership," focusing on each of the priority areas. In the habitat protection area the states agreed to seek to protect the region's offshore canyons, identify key habitats and migratory pathways and protect them, create a regional mapping system to identify for decision-makers areas that may be ecologically compatible or incompatible with certain activities, and to create habitat and restoration policies to guide management of key priority habitats and habitat types. In the renewable energy area, the states agreed to develop and share research and monitoring protocols for assessing construction and operations impacts on ocean and coastal resources and identify appropriate mitigation opportunities, define regulatory steps and barriers (and reduce unnecessary barriers) to develop offshore renewable energy resources, and to support a comprehensive offshore use map and decision-support tool to facilitate siting of renewable energy projects to minimize adverse impacts to other ocean users and ecological communities.[130]

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[129] http://www.dnr.state.md.us/bay/czm/ocean/index.asp. The agreement is available at http://www.midatlanticocean.org/agreement.pdf

[130] MARCO, "Actions, Timelines, and Leadership to Advance the Mid-Atlantic Governors' Agreement on Ocean Conservation," available at http://www.midatlanticocean.org/summary-actions.pdf.

The MMS, in its preamble to the April 2009 final rule on alternative energy leasing on the OCS, endorses the value of interstate planning and coordination to facilitate siting of alternative energy facilities. The preamble references the effort by Maryland, New York, New Jersey, Delaware and Virginia to collaborate in a "Mid-Atlantic Ocean Summit," which subsequently led to the June MARCO agreement.[131]

Potential Interstate Compact on Offshore Wind

The Commonwealth of Virginia in April of 2009 enacted a law inviting Maryland, Delaware, New Jersey, and New York to join with it in a "Mid-Atlantic Offshore Wind Energy Infrastructure Development Compact."[132] The legislation notes the importance of collaboration among state regulators, utilities, and project developers, and specifically observes that "coordinated planning is essential to develop an appropriate offshore electric power cable transmission network, to which offshore wind projects can interconnect without each project having its own power cable to shore, in order to minimize potential conflicts with other ocean users and to minimize the number of cable shore crossings and attendant environmental impacts in the environmentally sensitive coastal zones of each of the party states." It lays out terms for the proposed interstate compact, including membership that represents state legislators and the academic and utility communities as well as the governors; it recommends collaboration in grant seeking, planning, research, and efforts to "establish offshore wind energy infrastructure and operations" at each governmental level.[133]

Atlantic States Marine Fisheries Commission

The Atlantic States Marine Fisheries Commission (ASMFC) was formed in 1942 through an interstate compact approved by Congress to coordinate fisheries management in the waters of the fifteen Atlantic Seaboard states.[134] Each state is represented by three commissioners and has one vote.[135] Article IV of ASMFC's rules and regulations authorizes it to carry out an Interstate Fisheries Management Program, which is governed by the federal Atlantic Coastal Fisheries Cooperative Management Act of 1993.[136] Under the Interstate Program's Charter, the Commission develops and promulgates fishery management plans (FMPs) for twenty-four Atlantic fish species or species groups that

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[131] 74 Fed. Reg. at 19643 (April 29, 2009). MMS also noted that New Jersey and Rhode Island are "well along in planning efforts that will help to determine appropriate areas of the OCS for development and MMS has been an active partner with those States."

[132] Va. Acts 2009, ch. 316, codified at Va. Code §2.2-6000. The legislation states that the compact would become effective upon enactment by any three of the four named states in addition to Virginia. Under federal constitutional law, interstate compacts, as such, must also be endorsed by Congress, but not all interstate agreements are subject to this requirement. U.S. Const. Art. I, §10.

[133] Id.

[134] ASMFC, http://www.asmfc.org/ (last visited Aug. 11, 2009).

[135] ASMFC, http://www.asmfc.org/ (last visited Aug. 11, 2009).

[136] Pub. L. 103-206, 16 U.S.C. §§ 5101-5108. *See also* ASMFC, Interstate Fisheries Management Program Charter (last revised Nov. 2002) [hereinafter IFMP Charter], *available at* http://www.asmfc.org/publications/isfmpCharter03.pdf.

states are responsible for implementing within their respective jurisdictions.[137] If the Commission determines that a state is not in compliance with an FMP, it notifies the National Marine Fisheries Service (NMFS) within the Department of Commerce, and if NMFS concludes that "the measures that the State has failed to implement and enforce are necessary for the conservation of the fishery in question," NMFS may impose a moratorium on fishing within that state's waters.[138]

Of relevance for offshore energy projects, conservation and management of fish habitat may be included within the enforceable FMPs issued by the ASMFC.[139] There is a standing Habitat Committee under the ASMFC with the power to propose "habitat mitigation measures" and formulate "habitat-specific policies for adoption by the Commission."[140] Currently only the horseshoe crab FMP has mandatory habitat criteria with which states are obligated to comply.[141] Since the 1990s, however, habitat-specific concerns have been increasingly discussed in plans,[142] and the Commission has decided to adopt essential fish habitat (EFH) designations for those fishery species jointly managed with the federal fishery councils (see below, Mid-Atlantic Fishery Management Council).[143] ASMFC has made increased habitat protection a key objective for future management and in March 2009 signed an MOU forming the Atlantic Coastal Fish Habitat Partnership with 30 other organizations and government bodies.[144] ASMFC strategies that will be of relevance to any offshore energy developments in Maryland waters include: developing or updating habitat sections in the FMPs; assessing the effectiveness of habitat compliance requirements; strongly promoting intrastate programs that improve integrated management of fish; and encouraging development of scientifically sound, spatially and temporally representative pre- and post-construction surveys for coastal alteration projects.[145] While habitat provisions in FMPs are designed to sustain the fishery, violation of habitat measures are addressed by closures and limitations on the fishery – not penalties or orders to energy companies or others.

Mid-Atlantic Fishery Management Council

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[137] 16 U.S.C. § 5104; ASMFC, Interstate Fisheries Management Program Charter §7 (last revised Nov. 2002). The 1993 law also authorizes NMFS to develop regulations for management of federal fisheries in the Exclusive Economic Zone that are compatible with the FMPs adopted by the ASFMC. 16 U.S.C. § 5103(b).

[138] 16 U.S.C. § 5104.

[139] *See* ASMFC, Interstate Fisheries Management Program Charter §6(a)(5) (last revised Nov. 2002) (conservation programs and management measures "shall be designed to protect fish habitat); *id.* §6(b)(1)(v) (FMPs shall include "review and status of fish habitat"); *see also* 16 U.S.C. § 5103(a) (federal support for state efforts includes assistance with habitat conservation).

[140] ASMFC, Interstate Fisheries Management Program Charter §5(j)(3) & (5) (last revised Nov. 2002).

[141] ASMFC Habitat Program, Five-Year Strategic and Management Plan, 2007-2011, at 2 (approved Feb. 1, 2007), *available at* http://www.asmfc.org/publications/habitat/2007StrategicPlan_FINAL.pdf.

[142] *See* ASMFC, Habitat Documents, http://www.asmfc.org/educationOutreach.htm (last visited Aug. 11, 2009).

[143] ASMFC Habitat Program, Five-Year Strategic and Management Plan, 2007-2011, at 2 (approved Feb. 1, 2007).

[144] Press Release, Atlantic Coastal Fish Habitat Partnership Formalized through MOU (Mar. 25, 2009).

[145] ASMFC Habitat Program, Five-Year Strategic and Management Plan, 2007-2011, at 5-6 (approved Feb. 1, 2007).

The Mid-Atlantic Fishery Management Council (MAFMC) is a regional body that manages fisheries under the Magnuson-Stevens Fishery Conservation and Management Act.[146] MAFMC's jurisdiction covers the U.S. Exclusive Economic Zone (3 to 200 miles offshore) off the coasts of New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. MAFMC manages fisheries for Atlantic mackerel, squids, butterfish, spiny dogfish, summer flounder, scup, black sea bass, surfclam, ocean quahog, tilefish, and monkfish.[147] Under amendments to the law made in 1996, NOAA's National Marine Fisheries Service (NMFS) within the Department of Commerce develops guidelines for, and the regional councils must designate, "essential fish habitat."[148]

Federal agencies must consult with NMFS on "any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any essential fish habitat."[149] Councils such as MAFMC may make comments and recommendations on state or federal actions that "may affect the habitat, including essential fish habitat" of a fish resource, and are *required* to comment on such actions that may affect the habitat of anadromous fishes.[150] Upon information from a state or federal agency or other source that a federal or state action "would adversely affect any essential fish habitat," NMFS "shall recommend to such agency measures that *can* be taken by such agency to conserve such habitat."[151] Federal agencies, but not *state* agencies, are obligated to provide a reasoned response to such recommendations, including an explanation for why any recommendations were not accepted.[152]

Chesapeake Bay Agreement

With respect to activities in and around the Chesapeake Bay, Maryland must take into account its interstate and federal commitments under the Chesapeake Bay agreements. Successive agreements among Maryland, Virginia, Pennsylvania, the District of Columbia, the Federal Government, and the Chesapeake Bay Commission establish goals and commitments meant to improve the health of the Bay. The Chesapeake 2000 agreement sets goals for a significant array of living resources, water quality impacts, habitat, land use, and civic involvement:[153]

- *Living Resource Protection and Restoration* (Oysters, Exotic Species, Fish Passage and Migratory and Resident Fish, Multi-Species Management, Crabs) -- Restore, enhance and protect the finfish, shellfish and other living resources, their

[146] 16 U.S.C. §1801-1882, 90 Stat. 331, Pub. L. 94-265 (amended by Pub. L. 104-297).
[147] *See* MAFMC, History of Fishery Management Plants, http://www.mafmc.org/fmp/fmp.htm (last visited Aug. 10, 2009).
[148] 16 U.S.C. §1855(b). "The term 'essential fish habitat' means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." 16 U.S.C. §1802(10). Essential fish habitat will be designated in each species' fishery management plan. 16 U.S.C. §1853(1)(7).
[149] 16 U.S.C. §1855(b).
[150] 16 U.S.C. §1855(b).
[151] 16 U.S.C. §1855(b) (emphasis added).
[152] 16 U.S.C. §1855(b); *see also* 50 C.F.R. part 600, subparts J & K.
[153] http://www.chesapeakebay.net/pubs/chesapeake2000agreement.pdf

habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem.

- *Vital Habitat Protection and Restoration* (Submerged Aquatic Vegetation, Watersheds, Wetlands, Forests) -- Preserve, protect and restore those habitats and natural areas that are vital to the survival and diversity of the living resources of the Bay and its rivers.
- *Water Quality Protection and Restoration* (Nutrients and Sediments, Chemical Contaminants, Priority Urban Waters, Air Pollution, Boat Discharge) -- Achieve and maintain the water quality necessary to support the aquatic living resources of the Bay and its tributaries and to protect human health.
- *Sound Land Use* (Land Conservation, Development, Redevelopment and Revitalization, Transportation, Public Access) -- Develop, promote and achieve sound land use practices which protect and restore watershed resources and water quality, maintain reduced pollutant loadings for the Bay and its tributaries, and restore and preserve aquatic living resources.
- *Stewardship and Community Engagement* (Education and Outreach, Community Engagement, Government By Example, Partnerships) -- Promote individual stewardship and assist individuals, community-based organizations, businesses, local governments and schools to undertake initiatives to achieve the goals and commitments of this agreement.[154]

The Federal Clean Water Act provides authority for federal agencies to engage with the Chesapeake Bay Agreement, establishes the Chesapeake Bay Program office within EPA, commits federal agencies to support the management goals, and provides legislative authority for the Chesapeake Bay Program.[155] On May 12, 2009, President Obama signed an Executive Order committing federal agencies to develop strategies and programs for the watershed and ecosystem of the Chesapeake Bay, producing a draft strategy within 180 days and a final strategy within one year.[156] The federal agency partners are to consult "extensively" with Maryland and the other states in order to ensure "that Federal actions to protect and restore the Chesapeake Bay are closely coordinated with actions by State and local agencies in the watershed."[157]

In addition to the agreed Chesapeake Bay commitments, the U.S. EPA is likely to require preparation of a Total Maximum Daily Load for the Bay under the federal Clean Water Act. This will set water pollution "budgets" for the waterway and its tributaries that will limit the discharge of pollutants from various activities.[158] This will lead, in turn, to constraints on activities and affect the permitting of facilities by the states in the Bay watershed, including energy facilities.

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[154] http://dnrweb.dnr.state.md.us/bay/res_protect/c2k/index.asp Maryland tracks the state's progress on these goals. http://dnrweb.dnr.state.md.us/bay/res_protect/c2k/progress.asp

[155] 33. U.S.C. § 1267.

[156] E.O. 13508, "Chesapeake Bay Protection and Restoration," 74 Fed. Reg. 23099-23104 (May 15, 2009).

[157] Id. at § 204.

[158] On September 17, 2009 the U.S. EPA published notice of its intent to establish a Chesapeake Bay-wide Total Maximum Daily Load for nutrients and sediment for all impaired segments in the tidal portion of the Bay watershed. 74 Fed. Reg. 47792-47794 (Sept. 17, 2009).

Maryland Laws and Programs

This section identifies Maryland laws and programs relevant to offshore energy issues. Maryland's implementation or interaction with federal laws is described above in the section on Federal Laws and Policies and is not repeated in this section, although some of the relevant programs are also referred to in this section where there is a particular state issue not previously referenced.

This section does not attempt to discuss all Maryland laws that potentially touch on offshore energy projects, but focuses on those most directly relevant to decisions about whether such facilities will or will not be permitted, and with what review, and conditions. This section also looks at Maryland's energy policies, and its regulation of energy, transmission, and renewables.

Coastal Zone Management Program

Maryland's Coastal Zone Management Program (CZMP) described above carries out plans and activities for the protection of Maryland's coastal zone and coastal waters, including the Chesapeake Bay and Atlantic Coastal Bays as well as within state waters in the Atlantic Ocean. It is a networked program based on existing state laws and regulations. The MDNR-led program administers federal grants, conducts research and planning, and maintains and updates Maryland's "enforceable policies" to support effective coastal consistency review coordinated by the MDE.[159] As noted above, assuring the adoption and approval of appropriate enforceable policies and up-to-date lists of federal activities will be particularly important if Maryland is to influence energy development on the OCS – both off Maryland and off adjacent states that may affect Maryland waters and the coastal zone.[160] The CZMP also has an opportunity to play a proactive role in terms of research, identification of the relevant multiple uses of the coastal zone and marine waters, and coordination with other coastal states in advance of energy development. It has already undertaken to support research by The Nature Conservancy to identify ocean uses and habitats and development of a decision-support tool for offshore energy siting. Maryland's CZMP could also undertake any Special Area Management Plan that might support understanding and coordination of future activities affecting the coastal zone.

Coastal Facilities Review Act

Maryland's Coastal Facilities Review Act applies within the land and water areas of Maryland's Chesapeake Bay and Atlantic Coast counties, as well as within the three-mile limit in the Atlantic.[161] It requires an applicant to obtain a permit from the Maryland Department of the Environment, following preparation of an "economic, fiscal, and

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[159] http://www.dnr.state.md.us/bay/czm/about_czm.html
[160] *See* discussion *supra*, at 15-16.
[161] Md. Code Ann., Env't §§14-501 – 14-511. The 1975 Act was incorporated into Maryland's Coastal Zone Management program by a routine program change in 2005. The regulations are found at COMAR 26.22.01.00-.11.

environmental impact statement" and review by relevant state and local agencies, for construction of:

- any oil or natural gas pipeline from offshore sources;
- a production terminal or refinery with capacity of ten thousand barrels a day or more;
- a crude oil storage facility with capacity of 100,000 barrels on a 50 acre-site or with a throughput of ten thousand barrels a day;
- a natural gas processing, transmission or storage facility with capacity for one billion cu/ft of storage or 200 million cu/ft processing;
- an operations base of 25 acres or more with port and harbor facilities designed to support supplies for an offshore oil and/or gas exploration, development, or production operation; or of
- a fabrication yard for construction or preparation of offshore petroleum drilling equipment or platforms or wellhead installations.[162]

Detailed application requirements are set out in the regulations to address the issues to be assessed in the impact statement and the findings that the MDE Secretary must make.[163] The required impact statement must consider economic, fiscal, and environmental impact on the coastal area, make recommendations for minimizing adverse impacts, and evaluate the need for the facility and relative merit of other possible sites.[164] The Maryland Department of the Environment coordinates preparation of the impact statement.[165] The applicant is responsible for an application fee of $500 plus $15/hour of processing costs (to a maximum of $5,000), plus responsibility for all contractor expenses incurred for preparation of the impact statement and $15/hour in-house time incurred in connection with the impact statement.[166]

An application may not be processed nor the impact statement commenced until the county in which the facility is to be located or in which the pipeline is to terminate has certified to the Secretary of the MDE that "(1) All local land use classifications including zoning, variances, special exceptions, or conditional uses necessary for the location and operation of the facility have been or will be granted; (2) The county has postponed certification pending completion of the [impact] statement; or (3) Local land-use classifications necessary for the location and operation of the facility have been or will be denied." If the first or second of these occurs or in the absence of a county certification, the Secretary will proceed; if the third, the process terminates. After the impact statement is complete but before the Secretary's final decision, if the county has stayed action, it must certify that necessary land use classifications have been or will be granted; again, if it certifies denial or intent to deny county land use approvals, the application process

[162] Md. Code Ann., Env't §14-501(e).
[163] COMAR 26.22.01.04
[164] Id. §14-506.
[165] COMAR 26.22.01.07. Coordination of the state's impact statement and use of information and studies developed in any federal environmental impact statement is strongly encouraged ("to the maximum extent possible"). *Id.*
[166] COMAR 26.22.01.11.

terminates.[167] This essentially gives Maryland counties a veto power as a matter of state law over coastal oil and gas energy facilities (except where federal preemption applies, as with LNG siting).[168]

The MDE Secretary may issue the permit only after a public hearing and after making findings that the facility conforms with and meets all environmental standards; conforms with local land use planning and zoning and the state development plan; conforms with the coastal zone management program; would have no material adverse effect upon the natural environment of the area, its scenic or natural beauty, rare or irreplaceable natural resources, or unique historic sites; would have no material adverse effect on public health safety or welfare nor on Maryland's critical areas; would not materially contribute to an "extant level of undue environmental degradation or resource exhaustion;" would not impose a potential or immediate undue burden on the water supply of the site or region; and would not directly or indirectly impose a substantial burden on existing governmental public facilities. The Secretary must also find that the facility would generate "fewer undesirable environmental, economic, fiscal, and cultural consequences in its specific or general proposed location than other specific or general locations."[169] The Coastal Facilities Review Act permit covers all other MDE permitting requirements in order to streamline the permit process. The applicant must begin construction within two years, unless the permit is extended; up to three one-year extensions may be granted if the project has not been substantially modified.[170]

The Coastal Facilities Review Act is an "enforceable policy" under the CZMA, and so can be used by Maryland to deny consistency for federal actions and permits (although timing issues may arise with the process). The Coastal Facilities Review Act does not apply to facilities for renewable energy. Its requirements all relate to fossil fuel resources.

Oil Facilities Regulation

Maryland law addresses discharges of oil, establishing liability, compensation, and other provisions.[171] Discharge is defined as "the addition, introduction, leaking, spilling, or emitting any oil to State waters or the placing of any oil in a location where it is likely to reach State waters."[172] State law requires an oil transfer license and license fee for loading or offloading from or to any commercial vessel, barge, tank truck, tank car, pipeline, or any other means, but the license requirement does not apply to a vessel or

[167] COMAR 26.22.01.06.
[168] Potentially a further conflict could arise if MDE denies issuance of a CFRA permit on the basis of county action or other action, but the federal government determines that the federal activity will continue based on federal sovereignty over OCS resources and the need to bring them ashore, or based on FERC jurisdiction over interstate transmission facilities, for example.
[169] Md. Code Ann., Envt. §14-508.
[170] COMAR 26.21.01.10.
[171] Md. Ann. Code, Envt. § 4-401 et seq. COMAR 26.10.01.02 (Prohibition against oil pollution). Md. Ann. Code, Envt. § 4-406(c) (MDE duty to investigate, require repair of damage and restoration, emergency response, liability).
[172] Md. Ann. Code, Envt. § 4-401(d).

barge.[173] Oil operations permits are required for a variety of activities.[174] Marine oil facilities are "onshore or offshore facilities within waters of the state used or capable of being used" to transfer oil in bulk to or from a tank vessel,[175] and are subject to a number of response and discharge prevention requirements. Marine oil facilities and tank vessels are subject to federal regulation and response planning as well as state regulation.[176]

Regulation of Tidal Wetlands

It is Maryland's public policy to preserve its tidal wetlands and prevent their despoliation and destruction, taking into account ecological, economic, developmental, recreational, and aesthetic values.[177]

Maryland's Tidal Wetland Act, entitled Wetland and Riparian Rights, divides tidal wetlands into two categories – state wetlands and private wetlands. State wetlands are those lands under the navigable waters of the state below the mean high tide line that are affected by the regular rise and fall of the tide.[178] However, state wetlands that have been transferred to private ownership by the state are private wetlands to the extent of the property interest transferred. In general, private wetlands consist of emergent tidal marsh landward of the mean high water line. Private wetlands also include any land not considered state wetland bordering on or lying beneath tidal waters, subject to regular or periodic tidal action and supporting aquatic growth[179] as well as tidal waters created by the excavation of upland, unless conveyed to the state.[180]

Before beginning any work in tidal wetlands (including submerged lands), a person who intends to construct or reconstruct structures or to dredge or fill must obtain a license from the Board of Public Works (BPW) or a license, general license, general permit, or permit from the MDE.[181] The MDE reviews applications for both licenses and permits. In general, a "permit" is issued by the MDE for activities in private wetlands; while a "license" is issued by the BPW for state wetlands after receipt of MDE's recommendation.[182] However, if a project qualifies for a general wetlands license and does not require mitigation, the MDE may issue the license directly without going through the BPW.[183] The BPW has delegated to the Department the authority to decide on licenses for construction of water-dependent structures such as pilings, piers and boathouses.[184] Without a license or permit, a person may not fill; dredge; construct a

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[173] Md. Ann. Code, Envt. § 4-411.
[174] COMAR 26.10.01.07.
[175] COMAR 26.10.01.01B(12).
[176] COMAR 26.10.01.22 - .24
[177] Md. Ann. Code, Envt. §16-102
[178] Md. Ann. Code, Envt. §16-101(n); COMAR 26.24.01.02(B)(52)
[179] Md. Ann. Code, Envt. §16-101(j)
[180] COMAR 26.24.01.02(B)(42)(c)
[181] *But see* discussion *infra* ("Public Service Commission"), noting that the PSC has jurisdiction over wetlands permitting/licensing for projects (including electric power generating plants) requiring a Certificate of Public Convenience and Necessity.
[182] Md. Ann. Code, Envt. §16-202(b); COMAR 26.24.01.01(C).
[183] COMAR 26.24.02.04(A)
[184] COMAR 26.24.01.03.

structure in, on, over or under; or use tidal wetlands in a way that would destroy the wetland's natural vegetation or tidal flow or alter its beneficial character.[185]

MDE's Water Management Administration coordinates the "joint permitting" process for activities affecting tidal wetlands and other water resources of Maryland.[186] The MDE has developed a Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland.[187] This application allows the MDE to coordinate permitting/licensing for a variety of Maryland programs, and to ensure coordination with federal permit requirements under §404 of the federal Clean Water Act and Section 10 of the Rivers and Harbors Act. Projects over 1 acre of fill also require Corps of Engineers individual §404 permits, not simply the joint permit provided for under the Maryland State Programmatic General Permit approved by the Corps.[188]

Tidal wetland permits provide for consideration of numerous environmental issues. They include provisions for avoidance of impacts and for mitigation.

Under related legislation there is a state preference for "living" shorelines. Riparian owners are entitled to make improvements to protect the shore against erosion, but in 2008 the General Assembly added a provision requiring that such measures "shall consist of nonstructural shoreline stabilization measures that preserve the natural environment, such as marsh creation" except where MDE mapping identifies areas appropriate for structural stabilization or where the owner can prove that such measures are not feasible.[189]

Board of Public Works: State Submerged Lands/State Tidal Wetlands

Maryland's Board of Public Works, composed of Maryland's treasurer, governor, and comptroller,[190] exercises ultimate authority over the sale or lease of state-owned lands and waters including the state's submerged lands, and issues licenses for dredge and fill

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[185] COMAR 26.24.02.01(B). Only certain enumerated activities are exempted from this permitting/licensing requirement, including dredging of seafood products; trapping, hunting, fishing, and catching shellfish, if legally permitted; mosquito control and abatement projects approved by the Department of Agriculture; improvement of agricultural drainage ditches approved by the Department of Agriculture; and routine maintenance, repair or replacement of certain structures. Md. Ann. Code, Envt. §16-202(d); COMAR 26.24.02.01(C).

[186] This report focuses on tidal wetlands as primary to offshore energy issues, but the same application applies to activities affecting floodplains and nontidal (including non-Federally regulated nontidal) wetlands, which may include pipelines, support facilities, substations and other activities.

[187] http://www.mde.state.md.us/assets/document/permit/alter.pdf

[188] See generally, A. Luscher et al., "Regulatory Process for Living Shoreline Implementation in Maryland," in Living Shoreline Summit Conference Proceedings (2008), pp. 71-80. The joint application also assists in coordinating with Maryland's Critical Areas Law requirements, including buffer requirements, and with stormwater requirements (handled under a separate permit).

[189] Living Shoreline Protection Act of 2008, Md. Ann. Code, Envt. §16-201(c). The MDE must adopt regulations in consultation with the DNR. This provision should be incorporated into Maryland's Coastal Zone "enforceable policies."

[190] Md. Const. Art. 12.

operations in state waters with the advice of the Secretary of MDE.[191] Submerged lands over which the BPW exercises jurisdiction include "the inland waters of the State and the land under those waters; the waters of the Atlantic Ocean for 3 miles from the low watermark of the coast of the State bordering on that ocean and the land under those waters; and any legal or equitable rights, interests, privileges, or easements in, to, or over" such property.[192]

Oil and Gas

The BPW has power to grant leases on state lands and waters for the purpose of oil and gas extraction.[193] However, "the Board of Public Works may not enter into any [oil or gas] lease that would preclude or interfere with the public or private harvesting of finfish or shellfish."[194] Further, before BPW can solicit bids or award leases for oil and natural gas production in state waters, it must consult with the Critical Area Commission as well as require the Secretaries of Natural Resources, Environment, Business and Economic Development, Budget and Management, and Planning to prepare a "statement of environmental, fiscal, and economic impact of the proposed lease."[195] The impact statement must include, among other elements: an assessment of the "probable deleterious effects of the proposed drilling operation and production facilities" including probabilities and consequences of accidental discharges on marine and freshwater organisms, birds and wildlife, air and water quality, and land and water resources; an area-wide assessment addressing effects of pollution on the Chesapeake Bay and its tributaries; examination of the secondary environmental effects of induced economic development; evaluation of need for the production facility and the relative merit of other sites; and recommendations for minimizing adverse impacts.[196] The Board is directed by statute to adopt regulations setting out procedures and standards for awarding oil or gas leases under lands or waters of the state, and allowing persons periodically to nominate areas for possible leasing.[197] Despite the statutory direction, the Board has not adopted any oil and gas regulations. Drilling for oil or gas in the waters of the Chesapeake Bay, any of its tributaries, or in the Chesapeake Bay Critical Area is totally prohibited "notwithstanding any other law."[198]

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[191] Md. Ann. Envt. Code §16-202; *see also* Maryland Board of Public Works, http://www.bpw.state.md.us/default.asp (last visited July 23, 2009). Note Public Service Commission jurisdiction where the activity is subject to a Certificate of Public Convenience and Necessity, supra, n. 178.

[192] Md. Ann. Code, State Fin. & Proc. § 10-301. §10-305 authorizes leases.

[193] Md. Ann. Code, Nat. Resources §5-1701

[194] Md. Ann. Code, Nat. Resources §5-1701(c)

[195] Md. Ann. Code, Nat. Resources §5-1702(a)

[196] Md. Ann. Code, Nat. Resources §5-1702.

[197] Md. Ann. Code, Nat. Resources §5-1701.

[198] Md. Ann. Code, Env't §14-107. The MDE must deny a drilling permit elsewhere, if there is a risk of significant adverse impact to the Bay, the Bay's critical area, tidal or nontidal wetlands, protected species and species of conservation need, historic properties, populated areas, fisheries, or other significant natural resources. Id. at §14-108. Another law authorizes the Critical Area Commission to develop criteria for production of oil and gas on lands or water leased by the state, and for exploration or production that is in, on, or through (including slant drilling) the critical area. Md. Ann. Code, Nat. Res. §8-1817. *Also see* COMAR 26.19.01.08 - .09 (MDE permitting for drilling).

State tidal wetlands

As previously discussed, the Board of Public Works issues licenses for disturbance of "State tidal wetlands," which includes the subaqueous bottoms of Maryland waters described above. A license is required for dredging, filling, construction or reconstruction or repair, and certain other activities over, on, in, or under State tidal wetlands, or for alterations of State tidal wetlands.[199] "The construction, reconstruction, alteration, or addition to any conduit, cable, pipeline, intake or discharge pipe, trestle, or other similar device, structure or apparatus, over, on, in, or under tidal wetlands or waters of the State requires a license.[200] Such a license would be needed for installation of pipelines or cables for transmission of electric energy or conveyance of oil and gas, and or for platforms for offshore energy in state waters.[201]

A "joint application," referenced above, addresses Maryland licensing and the federal §404 dredge and fill permit or §10 permit also needed from the U.S. Army Corps of Engineers.[202] The MDE reviews the application and makes its recommendations to the BPW's Wetlands Administrator. The Wetlands Administrator's subsequent recommendation or concurrence is then submitted to the BPW, which makes the decision.

The BPW imposes standard conditions, and may impose special conditions, which "shall be" imposed if "necessary to preserve and protect State wetlands and to serve the public interest."[203] Public interests are "demonstrable environmental, social, and economic benefits which would accrue to the public…and which would exceed all demonstrable environmental, social, and economic costs of the proposed action or activity." They include "preservation of tidal wetlands; conservation of natural values and living resources; fishing and crabbing; navigational needs; water access and related recreation; and maritime commerce."[204] Special conditions may include a bond amount, mitigation, timing requirements, and other provisions.

The BPW may require compensation payable to the State for filling wetlands to make upland, for dredging unrelated to navigational need, or for similar use of State wetlands, except for licenses issued to a governmental unit.[205] Where the activity is ongoing and

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[199] COMAR 23.02.04.04.B.
[200] COMAR 23.02.04.04.C.
[201] Md. Code Ann., Envir. §§ 16-101 to 503. COMAR 23.02.04.02B: "For the purposes of this chapter, the landward boundary of State tidal wetlands is coterminous with the mean high water line. The seaward boundary is 3 miles from the low water mark of the Atlantic coast."
[202] Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland. This application also applies to permitting by MDE of activities in private wetlands, which include tidal wetlands not owned by the state.
[203] COMAR 23.02.04.13, 23.02.04.14 Public interests are "demonstrable environmental, social, and economic benefits which would accrue to the public…and which would exceed all demonstrable environmental, social, and economic costs of the propose action or activity." They include "preservation of tidal wetlands; conservation of natural values and living resources; fishing and crabbing; navigational needs; water access and related recreation; and maritime commerce." COMAR 23.02.04.01 B.
[204] COMAR 23.02.04.01B.
[205] COMAR 23.02.04.15.

commercial in nature, the BPW issues a "lease" and license, rather than just a license. In general, the lease continues until the activity is abandoned or lease terms are not complied with.[206] Compensation is required for placement of a "cable, pipeline, or other [similar] structure," with a one-time fee of $1,000 plus an annual fee of $1 per linear foot (adjusted every five years for inflation); but no annual fee is assessed for "cables" that are "installed as the result of action by any federal, State, or local governmental unit."[207] The fee is payable upon issuance of the lease rather than after construction has commenced.

The licensing procedures do not "address fully the range of fiduciary and proprietary responsibilities of the Board of Public Works relating to private uses of State wetlands. These matters may be considered by the Board of Public Works through easement, lease, quit-claim deed, or other instrument to protect the State's interests or to convey an interest in State wetlands."[208]

The BPW has not engaged in planning or zoning of submerged lands, and there is no express direction to do so. The Board simply uses its constitutional authority to make decisions about these lands – whether to allow or not allow specific uses, locations, etc.

Maryland Department of Planning

The Department of Planning coordinates among agencies and keeps a record of changes in the ownership status of state property.[209] It also coordinates requests for the granting of rights-of-way or easements across or through state-owned property when the purpose of the ROW or easement is not to serve the state-owned property.[210]

MDNR Fisheries Service

The Fisheries Service within MDNR manages fish stocks within the state. Among other duties, the Service implements fishery management plans (FMPs) for twenty-four species of fish.[211] These plans do not explicitly prohibit, or even require consideration of, habitat conversion resulting from offshore energy development, but such impacts would probably be included if relevant under "other pertinent data" and discretionary-content requirements in the FMPs.[212] MDNR apparently would not have authority to block an

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[206] This open lease term (used for pipelines, cables, etc.) is a matter of practice. The BPW could specify a specific lease term, renewal requirements, or other conditions. The BPW has for years issued 10-year "water column leases" for aquaculture in Maryland waters. Under new legislation, MDE, in consultation with the BPW, will adopt regulations for water column leases by October 2009.
[207] COMAR 23.02.04.15.D.2, 3. The fee exemption applies to government-initiated or directed actions rather than to government approval of private actions.
[208] COMAR 23.02.04.01D. Maryland does not convey title to its submerged lands, although it did so prior to 1862. Quit-claim conveyances of filled lands can be made to riparian owners but only after public hearing when in the public interest "taking into account the best interests of the State with respect to the varying ecological, economic, developmental, agricultural, recreational, and aesthetic values of the area under consideration." Md. Code Ann., Fin. & Proc. § 10-402.
[209] Md. Ann. Code, State Fin. & Proc. §§5-504, -505. COMAR 34.02.02.01 et seq.
[210] COMAR 34.02.02.07. The BPW makes the decision on grant or denial of the ROW.
[211] Md. Ann. Code Nat. Resources §4-215(b).
[212] Md. Ann. Code Nat. Resources §4-215(d) & (e).

offshore project through an FMP, although the Fisheries Service may leverage its authority in other ways in influencing offshore energy projects, including NEPA, MDE review of federal projects for water quality certification under the Clean Water Act, and federal consistency review under the CZMA.

Other rules relating to fish and aquatic habitat may be relevant to offshore energy development. Projects occurring in tidal waters that entail harvesting, cutting, eradicating, or removing submerged aquatic vegetation must first obtain approval from the DNR.[213] However, utility companies "may harvest, cut, or otherwise remove or eradicate submerged aquatic vegetation in a strip up to 60 feet wide in order to maintain utility crossings in the waters of the State without the approval of the Department."[214] Obstructions "may not be placed at the mouth of any creek, cove, or inlet, or across any stream, so as to impound any fish and prevent its free passage to and from the water or its free access up and down the stream."[215] The owner of "a dam or obstruction on the waters of the State used for the generation of electric power" is obligated to work with DNR "to assure the release of a sufficient flow of impounded water to maintain both water quality and aquatic habitat below the dam or obstruction."[216] No person may "use or attempt to use any device that may lure finfish by electrical impulses."[217] The latter prohibition, while aimed at outlawing certain fishing techniques, may raise at least some issues if electric fields generated by alternative energy sources prove to be attractive to fish.

A Task Force on Fisheries Management set up in 2007 made recommendations for reform to the General Assembly in December 2008, some of which, if implemented, will be relevant to offshore energy development.[218] The Task Force highlighted the current lack of and need for "quantitative parameters" for habitat quality for important species.[219] The Task Force recommended that the Fisheries Ecosystem Program, the Environmental Review Program, and other state bodies develop habitat quality criteria for various ecotypes found in the state.[220] The Task Force also recommended that the Environmental Review Program within DNR should begin using habitat criteria in reviewing and evaluating projects, and critical fish habitat should receive greater regulatory protection.[221] The Task Force singled out for special concern the need for greater understanding and protection of coastal and natural hard-bottom habitats along the Mid-

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[213] Md. Ann. Code Nat. Resources §4-213.
[214] Md. Ann. Code Nat. Resources §4-213(d)(1)(iii).
[215] Md. Ann. Code Nat. Resources §4-501.
[216] Md. Ann. Code Nat. Resources §4-513.
[217] Md. Ann. Code Nat. Resources §4-509.
[218] For information on current status of the Task Force's work, see DNR, Fisheries Service, Task Force on Fisheries Management, http://www.dnr.state.md.us/fisheries/taskforce/index.html (last visited Aug. 11, 2009).
[219] Report of the Task Force on Fishery Management 4 (Dec. 1, 2008), available at http://www.dnr.state.md.us/fisheries/taskforce/docs/MSAR6490CompletedLegislativeReportwithappendices2_112408.pdf.
[220] Report of the Task Force on Fishery Management 4 (Dec. 1, 2008).
[221] Report of the Task Force on Fishery Management 7 (Dec. 1, 2008).

Atlantic Bight, which are important to finfish and benthic species.[222] It recommended sea floor mapping and monitoring of those areas as first steps.[223]

Protected or Specially Managed Areas within State Waters

DNR has the authority to declare, in consultation with the Governor and the relevant superintendent, any state or federally-owned land or waters within the state a "state fish refuge," which at a minimum requires a ban on fishing, as well as other prohibitions DNR may prescribe.[224] Anyone who owns or leases tracts of land or water may petition to have the land protected as a fish refuge.[225] DNR's authority to acquire lands, waters, or structures for the establishment of fish refuges excludes "the ownership of and the right to drill any mineral, oil, or gas."[226] But this prohibition makes no reference to other sources of energy. Acquired lands or waters may be managed as state parks.[227] Rights-of-way may be granted across refuge lands and waters "if the grant does not adversely affect the protection and management of fish."[228] The state currently holds two fish refuges, both on the Potomac River in Charles County, which are totally closed to entry from March 1 to June 15 every year.[229] While these refuges were established to protect spawning grounds and from some resident migratory and anadromous fish from harvest gears, the authority to create fish refuges may provide useful authority to protect certain habitats from other sorts of effects where needed.

In order to protect oyster habitat, DNR has authority to establish submerged aquatic vegetation (SAV) protection zones in which bottom dredging is prohibited.[230] Another law protects oyster bars from all sources of damage.[231] DNR has 24 oyster sanctuary areas throughout the Bay, ranging in size from 5 acres to over 5,800 acres, including "the entire Severn and Magothy Rivers" and 19 reserves where oysters may be harvested in limited amounts after periodic closures.[232] Further, the Maryland DNR Artificial Reef Committee has designated areas throughout state waters for the establishment of artificial reefs.[233]

In April of 2008, Governor O'Malley issued an order prohibiting construction of commercial wind turbines on public lands administered by the DNR.[234] It is not clear whether this order applies to fish refuges and sanctuaries maintained by the Fisheries Service and similar water areas. A press release issued at the time of the order stated, "The decision to prohibit the placement of large-scale commercial and temporary

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[222] Report of the Task Force on Fishery Management 8 (Dec. 1, 2008).
[223] Report of the Task Force on Fishery Management 8 (Dec. 1, 2008).
[224] Md. Ann. Code Nat. Resources §4-405.
[225] Md. Ann. Code Nat. Resources §4-406.
[226] Md. Ann. Code Nat. Resources §4-401.
[227] Md. Ann. Code Nat. Resources §4-403.
[228] Md. Ann. Code Nat. Resources §4-404.
[229] COMAR 08.02.17.01-.02.
[230] Md. Ann. Code Nat. Resources §4-1006.1.
[231] Md. Ann. Code Nat. Resources §4-1118.1.
[232] http://www.dnr.state.md.us/fisheries/recreational/articles/oysterrestoration.html
[233] DNR, http://www.dnr.state.md.us/fisheries/reefs/MARIReefPoster_41.pdf (last visited Aug. 11, 2009).
[234] http://www.governor.maryland.gov/speeches/080412.asp (last visited Sept. 25, 2009).

exploratory wind power generation infrastructure applies exclusively to conservation lands held in fee-simple ownership by the state and managed by the Maryland Department of Natural Resources."[235] According to the DNR guidance implementing the ban, the policy basis for the ban is that such commercial facilities "are contrary to purposes for which DNR acquired lands and waters held and managed in the public trust."[236] However, all other references in the document are to "lands" only and not waters. Also the reference to "lands owned by the state in fee simple through the Department" and to lands "acquired" by DNR, suggest that this does not apply to the state's submerged lands, which Maryland holds as an element of the state's sovereignty and manages through the Board of Public Works. The ban does not categorically prohibit transmission lines through DNR lands to reach offsite wind facilities, which arguably includes offshore facilities. Therefore the ban is not anticipated to have a direct effect on the ability to site offshore wind farms in state waters. "The decision is not meant to guide or influence renewable energy development on other local, federal, or privately-owned land in Maryland."[237] Moreover the DNR policy memo issued in November of 2008 clarifies that "[p]rivate requests for a right-of-way across DNR lands for utility infrastructure (i.e., power transmission lines), to support wind power facilities not located on DNR lands may be considered using the standard protocols."[238]

Several other types of protected areas are found in Maryland's waters. The waters around a sunken German U-boat from World War II are managed as an historic shipwreck site by St. Mary's County, and was recently added to NOAA's list of "marine managed areas"[239] Other historic shipwreck sites potentially entitled to protection under federal and state historic preservation laws are located in Maryland waters.[240]

Conservation management units also abound within Maryland state waters and coastal areas. For example, National Wildlife Refuges in Maryland include Blackwater, Martin, Eastern Neck, Susquehanna, and Patuxent NWR. Assateague Island National Seashore is located along Maryland's Atlantic coast. The Captain John Smith National Historical Trail (water trail) in the Chesapeake Bay, and other units of the National Park System also will require attention. There is also the Chesapeake Bay National Estuarine Research

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[235] Maryland DNR, Press Release (April 12, 2008), available at http://www.dnr.state.md.us/dnrnews/pressrelease2008/041208.html

[236] DNR, Wind Power Development on Land Managed by the Department of Natural Resources, No. 2008:11 (Nov. 3, 2008) (emphasis added).

[237] Maryland DNR, Press Release (April 12, 2008), available at http://www.dnr.state.md.us/dnrnews/pressrelease2008/041208.html

[238] DNR, Wind Power Development on Land Managed by the Department of Natural Resources, Pol'y No. 2008:11 (effective November 3, 2008).

[239] St. Mary's County Recreation, Parks, and Community Services, Black Panther Historic Shipwreck Preserve, http://www.co.saint-marys.md.us/recreate/museums/u1105.asp (last visited Aug. 11, 2009); http://dnr.maryland.gov/dnrnews/pressrelease2009/042709.html (last visited Sept. 25, 2009).

[240] A 2007 study conducted by the Maryland Department of Planning's Maryland Historical Trust for Maryland's CZM Program, found that up to 113 historically documented shipwrecks might be located in Maryland's ocean waters from the Ocean City inlet to the Delaware state line and within the 3-mile limit, comprising 19,200 acres of state waters and submerged lands. S. Langley & B. Jordan, Archeological Overview and Remote Sensing Survey for Maryland State Waters (Sept. 21, 2007).

Reserve, comprising 4,820 acres of Maryland lands and wetlands of the Bay.[241] Maryland Heritage Areas, including the Lower Eastern Shore Heritage Area and Southern Maryland Heritage Area, may also require attention to maintain conservation and tourism values.[242]

Offshore energy facilities (both generating units and transmission facilities) will likely need to be planned to avoid conservation areas in state waters and/or to mitigate unavoidable impacts on them.

Shellfish Submerged Land Leases/Zones

The DNR has long administered 20-year leases of submerged lands for the production of shellfish.[243] New legislation, effective June 2009, directs DNR to establish by regulation, in consultation with the Oyster Advisory Commission, public shellfish fishery areas within the Chesapeake Bay within which leasing will be prohibited. The legislation allows the continuation of existing leases that are actively managed, if in compliance with National Shellfish Sanitation Requirements. In addition, the DNR is to identify Aquaculture Enterprise Zones (AEZs), in consultation with MDE and the BPW, for aquaculture and submerged lands leasing. In establishing AEZs, the DNR must evaluate "potential conflicts presented by other uses of the proposed area, to include navigation, recreation, and commercial fishing."[244]

AEZs are areas within the Bay pre-approved by DNR for leasing of submerged lands or aquaculture leases of the water column. Submerged land leases and water column leases may also be approved outside AEZs, including in the Atlantic Coastal Bays. Submerged land leases are any lands beneath the waters of the state leased for commercial shellfish cultivation. Demonstration leases of submerged lands outside of AEZs are also allowed for the purpose demonstrating the benefits of shellfish cultivation or for research or education.[245] Neither AEZs nor submerged land leases nor demonstration leases may be within 50 feet of a shoreline or pier without permission of the riparian owner; nor within 150 feet of a public shellfish fishery, registered pound net site, oyster sanctuary or reserve, or federal navigation channel; nor in a waterbody less than 300 feet wide; nor in

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[241] http://nerrs.noaa.gov/ChesapeakeBayMD/welcome.html
[242] Md. Ann. Code, Fin. Inst. §13-1101 et seq.
[243] Md. Ann. Code, Nat. Resources, §§ 4–1102 – 4-1103and 4–11A–01 et seq. through 4–11A–11(2005 Replacement Volume and 2008 Supplement).
[244] Acts 2009, ch. 173. SB 271/HB 312 (2009), amending Md. Ann. Code, Envir. § 16-202, Md. Ann. Code, Nat. Resources § 4-1103, § 4A-11-01 et seq. (2009 Supp).
[245] Md. Ann. Code, Nat. Resources § 4A-11-01 (2009 Supp). DNR issues submerged lands leases for cultivation of commercial shellfish. Aquaculture and submerged land leases may be of any size and are limited to a term of 20 years. Demonstration leases of up to five acres may be issued to education and non-profit entities, but shellfish in these areas may not be harvested for commercial or consumption purposes. Water column leases for aquaculture in AEZs will be issued by DNR, but outside of AEZs are issued by the BPW advised by MDE as tidal wetlands licenses. Md. Ann. Code, Envir. § 16-202(d)(5)(2009 Supp.); Md. Ann. Code, Nat. Resources §4A-11-08(a)(2) (2009 Supp.).

a Submerged Aquatic Vegetation (SAV) protection zone.[246] Active use requirements for leases will require annually planting at least ¼ of the leased area with at least one million shellfish seed/acre, unless otherwise specified by DNR. The DNR may deny applications for reasonable cause, and is directed to include conditions in any issued lease.

DNR is authorized to identify in the Atlantic Coastal Bays submerged land areas that are pre-approved, that may be approved upon specific application and review, and that will not be approved for leasing, considering potential conflicts presented by other uses including navigation, recreation, and commercial fishing. Setbacks from Assateague Island National Seashore will be established by regulation.[247]

Maryland's Threatened and Endangered Species Protections

Maryland has two separate wildlife protection laws that might apply to offshore energy projects: the Nongame and Endangered Species Conservation Act (ESCA)[248] and the Endangered Species of Fish Conservation Act (ESFCA).[249] Both are implemented by the MDNR's Wildlife and Heritage Service, the latter jointly with the MDNR's Fisheries Service. These laws incorporate endangered and threatened species listed under the federal Endangered Species Act (ESA) and establish protections for state-listed plants and wildlife. A special category of non-threatened species "in need of conservation" covers animals with limited or declining populations within Maryland.[250] ESCA covers platy helminthes, mollusks, crustaceans, insects, several finfish species, amphibians, reptiles, birds, and mammals (including whales),[251] while ESFCA covers game species of finfish, conch, billfish, and sharks.[252] Both laws forbid "taking, possession, transportation, exportation, processing, sale or offer for sale, or shipment" of any state-listed species except by permit or regulatory exception.[253] There are no incidental take provisions for endangered species under ESCA[254] or any type of species under ESFCA,[255] but incidental take permits are available for threatened species under ESCA,[256] and no incidental take permit is required for "species in need of conservation"

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[246] SAV protection zones are areas where SAV has a density greater than 10 percent in any of the three years preceding designation of an AEZ or preceding an application for an aquaculture, submerged land, or demonstration lease.
[247] Md. Ann. Code, Nat. Resources § 4A-11-07 (2009 Supp).
[248] Md. Ann. Code Nat. Resources §10-2A-01—09.
[249] Md. Ann. Code Nat. Resources §4-2A-01—09. An "endangered [fish] species" is "any species whose continued existence as a viable component of the State's fish resources is determined to be in jeopardy." *Id.* §4-2A-01(d). "Threatened [fish] species" means any species of fish which appears likely, within the foreseeable future, to become endangered." *Id.* §4-2A-01(i).
[250] COMAR 08.03.08.09.
[251] COMAR 08.03.08.04 (endangered wildlife); *id.* .05 (endangered plants); *id.* .07 (threatened wildlife); *id.* .08 (threatened plants); *id.* .09 ("species in need of conservation").
[252] COMAR 08.02.12.03 (listing threatened, endangered, and "in need of conservation" fish species).
[253] Md. Ann. Code Nat. Resources §10-2A-03; *id.* §4-2A-03. "'Take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Md. Ann. Code Nat. Resources §10-2A-01(k); *id.* §4-2A-01(h).
[254] However, specific incidental take provisions have been developed for two endangered species. Md. Ann. Code Nat. Resources §10-2A-05.1-05.2.
[255] *See* COMAR 08.02.12.04 (prohibitions).
[256] *Id.* 08.03.08.07B(3).

under ESCA.[257] A Wildlife Heritage Service official involved with on-shore wind-farm permitting in western Maryland cites the lack of incidental take procedures for endangered species as well as an underdeveloped definition of "take" as sources of regulatory uncertainty.

State agencies are required to use their authorities in furtherance of species protection and "by taking any action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of the endangered species or threatened species or result in the destruction or modification of habitat of the species which is deemed by the Secretary to be critical."[258] In addition to environmental reviews undertaken by state agencies to satisfy this requirement, many (but not all) counties in Maryland require private project developers to consult with the Wildlife and Heritage Service within DNR regarding potential impacts to endangered or threatened species.[259] This process generates several thousand reviews each year throughout the state.

The Service also operates the Natural Heritage Program, which designates and administers Natural Heritage Areas for the protection of rare, threatened, or endangered species[260] and provides state-wide analysis of significant vegetative communities, including marine and coastal communities.[261] Of the 32 Maryland Natural Heritage Sites, 24 are located in the critical area (see below, Maryland Critical Area Act); four of these border the Chesapeake Bay, and one, North Sinepuxent Bay Dunes, is along the Atlantic Ocean, and so might be affected by offshore energy activities.[262]

State law also provides for the designation of "restricted areas" closed to access for the protection of state listed endangered or threatened species of wildlife or plants or identified species of conservation need.[263] "Without written permission from the Secretary, a person may not trespass, enter, or release an animal on lands owned or controlled by the State which are located between the mean high and mean low water lines of waters of the State and which are posted in a conspicuous manner as a restricted area;" these include the state-owned areas below mean high water at Assateague Island National Seashore; and the shoreline of Skimmer Island in Isle of Wight Bay.[264]

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[257] *Id.* 08.03.08.09B(3).
[258] Md. Ann. Code Nat. Resources §10-2A-06(c); *id.* § §4-2A-06(c). Questions also exist as to whether the Public Service Commission, as a state agency whose approval is required for an "exemption" for *onshore* wind power under 70 MW from a Certificate of Public Convenience and Necessity (CPCN), must undertake a review of impacts on protected wildlife as required by ESCA and ESFCA.
[259] Conversation with Gwen Brewer, Manger of WHS Science Program, Monday, August 10, 2009.
[260] COMAR 08.03.08.10 (providing criteria and listing all existing areas by county).
[261] *See* DNR, *About the Maryland Wildlife Diversity Conservation Plan*, http://www.dnr.state.md.us/wildlife/divplan_about.asp (last visited August 10, 2009).
[262] COMAR 08.03.08.10
[263] COMAR 08.03.08.11
[264] Id.

Coastal Bays Program

Maryland's Coastal Bays Program[265] has prepared a Comprehensive Conservation and Management Plan to improve environmental protection in and around the Coastal Bays through watershed indicators, local actions and sub-watershed restoration strategies.[266] Neither the Atlantic Coastal Bays Critical Areas requirements nor the Management Plan have been added to Maryland's CZMA enforceable policies.

Beach Erosion Control & Replenishment

Maryland law prohibits any "land clearing, construction activity, or the construction or placement of permanent structures within" the area between the waters of the Atlantic Ocean and, respectively, the west crest of the dune (on Assateague Island) and the State-Ocean City building limit line, except for specified works.[267] The exceptions, which include approved storm control, beach erosion and sediment control, and maintenance projects to benefit the beach erosion control district, do not include energy facilities or transmission lines or oil and gas pipelines. Thus, absent any changes in the law, transmission lines and pipelines would need to be directionally drilled so as not to enter the protected beach zone (provided further that underground work would not itself be interpreted as "construction or placement of permanent structures within" the protected area).

Maryland Critical Area Act

In 1984, the Maryland General Assembly passed the Critical Area Act.[268] The drafters of the law recognized that in addition to the waters of the Chesapeake itself, the shorelines of the Chesapeake Bay and its tributaries have the greatest impact on water quality and wildlife habitat.[269] Hence, the law is focused on what it defines as the critical area: all land and water areas within 1,000 feet of the mean high water line and the landward boundaries of wetlands as well as all waters of and lands under the Chesapeake Bay, its tributaries to the head of tide, and state and private wetlands.[270]

While the law originally focused only on areas bordering the Chesapeake Bay, it was amended in 2002 to add the Atlantic Coastal Bays and portions of Worcester County and Ocean City.[271] This additional area includes all waters and lands under Assawoman, Isle of Wight, Sinepuxent, Newport, and Chincoteague Bays and their tributaries to the head

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[265] The Coastal Bays Program is a partnership under the National Estuary Program, among Ocean City and Berlin, Worcester County, the U.S. Environmental Protection Agency, the National Park Service, and Maryland's Departments of Natural Resources, Agriculture, Environment, and Planning.
[266] http://www.mdcoastalbays.org/about.php
[267] Md. Ann. Code, Nat. Resources §8-1102.
[268] CRITICAL AREA COMMISSION FOR THE CHESAPEAKE AND ATLANTIC COASTAL BAYS, BAY SMART: A CITIZEN'S GUIDE TO MARYLAND'S CRITICAL AREA PROGRAM 12 (2007) [Hereinafter BAY SMART].
[269] *Id*. at 13.
[270] MD. CODE ANN., NAT. RES. § 8-1807(a).
[271] BAY SMART, at 3. Maryland's Atlantic Coastal Bays Program addition to the Critical Areas law has not been formally submitted to NOAA as an enforceable policy of the state's CZMP.

of tide as well as all state and private wetlands and all land and water areas within 1,000 feet of the landward boundaries of wetlands and the heads of tides.[272] The area 1,000 feet inland from the Coastal Bays on Maryland's barrier islands often, but not always, reaches to the beaches of the Atlantic Coast. For simplicity in administration, Ocean City is considering making all of the land under its jurisdiction (from Ocean City Inlet north to the Delaware border) critical area.

Operation of the Act

The Critical Area Act established a unique relationship between state and local government. The law created the 29-member Critical Area Commission, which consists of Cabinet-level Secretaries from affected state agencies as well as local officials and citizens appointed by the governor with the advice and consent of the senate.[273] Each political subdivision in the critical area, of which there are now 64 (16 counties, 47 municipalities, and Baltimore City), was given primary responsibility for developing and implementing its own critical area protection program.[274] To provide consistency throughout the affected jurisdictions, the Commission is required to review and approve these programs, using criteria for program development and approval.[275]

The Critical Area Act requires the critical area protection program of each local jurisdiction to include elements necessary or appropriate to (1) minimize adverse impacts on water quality that result from pollutants from point and nonpoint sources; (2) conserve fish, wildlife, and plant habitat; and (3) establish land use policies for development in critical areas which accommodate growth and also consider the adverse environmental impacts from the number, movement, and activities of people in that area.[276] Most development activities are reviewed by local jurisdictions for consistency with their critical area ordinances and regulations. The Commission performs an oversight role with respect to the local review of projects but also is the sole reviewer of state or local agency actions resulting in major development on state, local, or private lands in the critical area.[277]

Critical Area Criteria

The criteria developed by the Commission are used by local jurisdictions as a framework for their critical area programs and as guidance for amending local comprehensive plans, zoning ordinances, and subdivision regulations. The criteria also are used by the Commission in the course of evaluating the local programs for approval. One set of criteria applies to lands owned by the state, and another set applies to land that is not owned by the state. The criteria for local and state lands are often similar, when not identical.

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[272] MD. CODE ANN., NAT. RES. § 8-1802(a).
[273] MD. CODE ANN., NAT. RES. § 8-1804(a)(1).
[274] *Id*. at § 8-1808(a)(1).
[275] *Id*. at § 8-1808(e)(1).
[276] MD. CODE ANN., NAT. RES. § 8-1808(b).
[277] BAY SMART, at 21.

The Commission's criteria recognize distinctions in the uses of different areas lying within the critical area. To accommodate land uses when the law was first implemented, each local jurisdiction was required to map the boundaries of its critical area and designate land uses as one of three classes.[278] Except for land owned by the state or federal governments, all land in the critical area is designated as Intensely Developed Areas (IDAs), Limited Development Areas (LDAs), or Resource Conservation Areas (RCAs) based on land uses current on December 1, 1985, or June 1, 2002 for the Atlantic Coast.[279]

IDAs are primarily residential, commercial, institutional, and/or industrial with little natural habitat.[280] LDAs are characterized by low or moderate development intensity and include areas of natural plant and animal habitats.[281] RCAs primarily contain natural environments, including wetlands, forests, and abandoned fields, and resource-utilization activities such as agriculture, forestry, fisheries activities, or aquaculture.[282]

Certain provisions of the Critical Area Criteria apply uniformly across the critical area regardless of the use designation. Other provisions apply specifically to a particular use designation: IDA, LDA, or RCA. Therefore, the designation of an area can make a difference in the restrictions on the use of the land. Local jurisdictions may grant variances to the criteria[283] as well as change the land use designation.[284] The reclassification of land from one use designation to another, more intense classification is termed "growth allocation" in the criteria. Growth allocation can be used to change RCAs to LDAs or IDAs, as well as LDAs to IDAs. The amount of acreage for growth allocation is five percent of RCA acreage, excluding federally owned lands and state tidal wetlands, at the time of original critical area mapping.[285] There are no provisions in the Critical Area Law or in criteria addressing increases in or adjustments to this amount of acreage for growth allocation.[286]

Energy Transmission Activities in the Critical Area Generally

The criteria prohibit certain activities relevant to the energy industry in parts of the critical area. Non-maritime heavy industry, transportation facilities and *utility*

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[278] *Id*. at 23. The passage of HB1253/SB844 in 2008 shifted the source of information on the boundaries of the Chesapeake and Atlantic Coastal Bays Critical Area from the state wetlands maps to the Statewide Base Map prepared by DNR. This Act also mandates that DNR update the Statewide Base Map at least once every twelve years and that the Critical Area Commission adopt regulations providing review and update of a local jurisdiction's Critical Area Map as part of the required six–year comprehensive review.
[279] BAY SMART, at 23. By statute, critical area under Ocean City's jurisdiction is designated IDA. Assateague Island consists of a state park (designated RCA) and federal conservation land (Assateague Island National Seashore).
[280] MD. REGS. CODE tit. 27, § 01.02.03A.
[281] *Id.* at § 01.02.04A.
[282] *Id.* at § 01.02.05A.
[283] *Id.* at § 01.11.01A.
[284] *Id.* at § 01.02.06.
[285] *Id.*
[286] BAY SMART, at 61.

transmission facilities, and permanent sludge handling, storage, and disposal facilities, are not allowed within the critical area *unless* they are located in IDAs and the activity or facility has demonstrated that there will be a net improvement in water quality to the adjacent body of water.[287] However, this prohibition does not apply to transportation facilities and utility transmission facilities that are necessary to serve permitted uses or "where regional or interstate facilities must cross tidal waters."[288]

"Utility transmission facilities" are defined as "fixed structures that convey or distribute resources, wastes, or both, including, but not limited to, electric lines, water conduits, and sewer lines."[289] They do not include power plants.[290]

This provision may affect transmission lines from offshore electrical power generation that are brought ashore to connect to the grid. The exemptions for utility transmission facilities serving permitted uses, or regional or interstate facilities that must cross tidal waters, have covered nearly all previous cases where a permit has been sought. Low voltage lines from small offshore energy producers that serve uses in the critical area likely will satisfy the "serve permitted uses" exemption. For those transmission lines from offshore energy producers that do not service uses in the critical area, they must qualify as "regional or interstate facilities" to be exempted if they are to come ashore outside the IDA (not to mention the difficulty in showing improvements in water quality for those coming ashore within an IDA). Transmission lines from large offshore energy producers, such as wind farms, may be classified as regional facilities. It is less clear whether single wind turbines with a more limited service area would receive this classification.

Oil and gas pipelines from offshore production are not explicitly included in the definitions of "transportation facilities" or "utility transmission facilities" and hence may not fall within the restrictions (or may not qualify for the exemptions). However, they could be seen to meet the definition as "fixed structures that convey or distribute resources." If so, they will be limited to IDAs and allowed only upon a showing of water quality improvement; unless they qualify for the exemption allowing their siting anywhere as regional or interstate facilities (even though they only enter one state, because of their role in interstate commerce and their transmission of federal oil or gas.) The issue may be complex and present issues for interpretation and litigation. Such production pipelines might also be interpreted as serving a "permitted use" if a storage area or distribution facility is sited onshore under the Coastal Facilities Review Act (although "serving" would be a somewhat different context from a road or retail gas line going to a permitted user in the critical area, which is what the definition generally seems to suggest). In short, there is ambiguity in the potential treatment of the production pipelines.

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[287] MD. REGS. CODE tit. 27, § 01.02.02F; § 02.05.03B(1)(d).
[288] *Id.* at § 01.02.02F(1)(b); § 02.05.03B(1)(d)(ii).
[289] *Id.* at § 01.01.01B(73).
[290] *Id.* at § 01.02.02F(1)(b). Power plants are not prohibited in the critical area, but are subject to limitations, particularly on state lands, discussed below.

Energy Transmission Activities within Habitat Protection Areas/Buffers

The issue of energy transmission in the critical area is made even more complex by provisions for "habitat protection areas" and "buffers." The Critical Area Act requires each local jurisdiction to establish comprehensive standards and procedures for habitat protection areas within the critical area.[291] Habitat protection areas include buffers, nontidal wetlands, the habitats of threatened and endangered species as well as species in need of conservation, significant plant and wildlife habitat, and anadromous fish-spawning areas. Each of these categories has use restrictions *in addition* to general restrictions for all critical areas and restrictions for the use designation area (IDA, LDA, or RCA) in which the habitat protection area is located.

Of particular note, buffers cover nearly the entire shoreline; therefore, the landing of an electric transmission line or oil and gas pipeline likely would need to pass through one. Buffers are defined in the criteria as "existing, naturally vegetated area, or an area established in vegetation and managed to protect aquatic, wetlands, shoreline, and terrestrial environments from man-made disturbances."[292] The state agency responsible for administering the pertinent land, in the case of state-owned land, or the local jurisdiction, in the case of all other land, must establish a buffer of a minimum of 100 feet landward from the mean high water line of tidal waters and wetlands and tributary streams.[293] State agencies or local jurisdictions may request an exemption of portions of the critical area from buffer requirements if it is shown that the existing pattern of development in the critical area prevents the buffer from fulfilling its intended functions.[294]

Utilities in the Buffer

The current language of the criteria prohibits the construction of roads, bridges, or "utilities" in any habitat protection area, including buffers, in an LDA or RCA unless there is no feasible alternative.[295] If there is no feasible alternative, the road, bridge, or utility is allowed in the habitat protection area, but it must be located, designed, constructed, and maintained to maximize erosion protection and minimize negative impacts to habitats, wildlife, aquatic life, and water quality.[296] This is true for state-owned lands as well as lands not owned by the state.[297] At the July 8, 2009 meeting of the Critical Area Commission, the Commission resolved to amend the criteria to slightly

[291] MD. CODE ANN., NAT. RES. § 8-1806(b)(1)(xiii)(1).
[292] MD. REGS. CODE tit. 27, at § 01.09.01A.
[293] MD. REGS. CODE tit. 27, § 01.09.01C(1); § 02.05.09B(1).
[294] *Id.* at § 01.09.01C(8); § 02.05.09B(8). Much of Worcester County's critical area buffers for the Atlantic Coastal Bays fall within such "buffer management areas" because of prior development. Worcester County, "Buffer Management Areas: Descriptions and Regulations," approved by the Critical Area Commission March 28, 2003, available at http://www.co.worcester.md.us/Buffer%20Management%20Plan.pdf (last visited Sept. 25, 2009).
[295] *Id.* at § 01.02.04C(1)(b); § 01.02.05C(7). Interestingly, the regulations for the buffer limitations use the undefined term "utilities" rather than the defined "utility transmission facilities."
[296] *Id.* at § 01.02.04C(1)(b).
[297] *See id.* at § 02.05.03B(3)(a)(ii).

modify the wording of these provisions and, more importantly, extend the provisions to include habitat protection areas in IDAs as well as those in LDAs and RCAs.[298]

As a result of these provisions of the Critical Area Criteria, the landing of any transmission lines from offshore electrical production through a buffer or other habitat protection area could occur if there is "no feasible alternative."

The determination as to whether there is "no feasible alternative" ultimately is made by the Critical Area Commission when the development is by the state on state lands or by the state or local agency on private lands or lands owned by local jurisdictions. That determination is made by the local jurisdiction in all other cases.

Oil and Gas Pipelines in the Buffer

Interestingly, the laying of *production* oil and gas lines through habitat protection areas is, unlike roads, bridges, and utilities, not clearly explicitly prohibited subject to a showing of "no feasible alternative."

If the laying of oil and gas lines in the buffer is not otherwise addressed, like other uses it may still be permitted in the buffer of IDAs and LDAs (but not in RCAs) if it can be demonstrated that:(1) it is water-dependent, (2) the project meets a public need (or a private right on lands not owned by the state), (3) adverse effects on habitat and water quality are minimized, (4) and the nonwater-dependent portions of water-dependent projects or activities are located outside the buffer where possible.[299] These criteria, unlike those for roads, bridges, and utilities, do not require a finding of "no feasible alternative." The public need requirement might be satisfied in the case of oil and gas production, particularly if viewed from a national perspective. And the facilities necessary to bring oil and gas extracted offshore likely would qualify as "water-dependent."[300] Permitting the development in the IDA or LDA buffer on state-owned land does not require proof that the facilities are consistent with the approved local plan, but such a requirement applies on private and other lands.[301]

Algal biomass in the buffer

It is unclear how algal biomass facilities in the buffer might be treated. Are these facilities sufficiently water-dependent to be sited within the buffer? They might be,

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[298] *See* Lisa Hoerger, *Critical Area Commission Staff Report* (July 8, 2009). This change should be effective in the late fall of 2009.
[299] MD. REGS. CODE tit. 27, § 01.03.03A; § 02.05.04B(2).
[300] *Id.* at § 01.03.01 ("structures or works associated with industrial, maritime, recreational, educational, or fisheries activities that require location at or near the shoreline within the buffer … An activity is water-dependent if it cannot exist outside the buffer and is dependent on the water by reason of the intrinsic nature of its operation").
[301] *Id.* at § 02.05.04B(1).§ 01.03.03A.

depending upon the type of operations proposed. The determination of public need, private right, and adverse impacts might pose issues as well.[302]

Industrial and port-related

On state lands, buffer exemptions shall be requested from the Commission "if the Buffer area is proposed to be used for industrial and port-related water-dependent facilities, water-use industries, and the intake and outfall structures of power plants and sewage treatment plants."[303]

Power Generation within the Critical Area

The Critical Area Criteria prohibit the development of "power plants" on *state lands* in the critical area, except in IDAs and only if the activity or facility has demonstrated that there will be a net improvement in water quality to the adjacent body of water.[304] The definition of critical area includes all waters of and lands under the Chesapeake Bay and Atlantic Coastal Bays.[305] The lands under each of these bays are state lands. Thus, as the Critical Area Criteria currently read, power plants would be prohibited in state waters and upon the lands under the waters of the Chesapeake and Atlantic Coastal Bays unless they can meet the requirements for an exception.[306] The Critical Area Criteria do not define "power plant."[307] This prohibition against power plants would not affect oil and gas development but would affect alternative energy production in the Chesapeake and Atlantic Coastal Bays. The requirements for an exception are difficult, if not impossible, to meet for offshore locations. Most significantly, the water and lands under the water of the Chesapeake and Atlantic Coastal Bays are not designated as IDAs, LDAs, or RCAs, which means that there are no offshore IDAs in which to locate a "power plant." Secondarily, proving a net improvement in water quality to the adjacent body of water is particularly difficult as many of the techniques that would be used on land, such as

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[302] If these are deemed "power plants" also see the discussion headed "power generation within the critical area," *infra*.
[303] *Id*. at § 02.05.09B(8).
[304] *Id*. at § 02.05.03B(1)(d).
[305] *See* MD. CODE ANN., NAT. RES. § 8-1807. This does not affect state and federal waters of the Atlantic Ocean.
[306] Arguably, however, power plants subject to PUC Certificates of Public Convenience and Necessity located in state waters might not be prohibited by this section. Although the PUC article of the Maryland Code does not specifically address "critical areas", it does provide that "The grant of a certificate by the Commission to any person under subsection (e) of this section constitutes: (1) authority for the person to dredge and construct bulkheads in the waters…of the State and to appropriate or use the waters." Md. Ann. Code, Public Util. Co. §7-208(h). See *In the Matter of the Application of Unistar Nuclear Energy, LLC*, Case No. 9127, Proposed Order of Hearing Examiner filed April 28, 2009, at 76, aff'd by PSC, June 29, 2009, and discussion *infra* ("Public Service Commission).
[307] The Critical Area Commission endorsed a definition of "power plant" for purposes of a Memorandum of Understanding with the Public Service Commission in 1989. The MOU defines "power plant" as "property or facilities constituting an integral plant or unit for the generation of electric energy, including any new generation unit that would be added to an existing generation facility and transmission facilities." Memorandum of Understanding between the Maryland Public Service Commission, the Chesapeake Bay Critical Area Commission and the Maryland Department of Natural Resources (December 14, 1989).

planting trees, are not feasible in the bays (although might be addressed through offsets or onshore mitigation activities).

Local Options for Precluding Energy Activities

A provision of the Critical Area Criteria allows local jurisdictions to preclude types of development activities that they consider "detrimental to water quality or fish, wildlife, or plant habitats within their jurisdictions" *in addition* to those expressly prohibited in the critical area.[308] This provision already has affected the process of siting an LNG facility (albeit not successfully at least in the near term) and might be used to do the same for oil and gas pipelines. Local jurisdictions might also act to preclude algal biomass, solar, and other generation facilities within their jurisdiction, although not on state lands. It is not clear whether this provision might be used to prohibit transmission facilities and support facilities for offshore alternative wind energy producers; the express prohibitions and exceptions relating to "transmission facilities" discussed above may prevent local governments from addressing this issue inconsistently.

Coordination with the Public Service Commission

A provision of the Critical Area Criteria requires the Critical Area Commission to hold joint hearings, as appropriate, with the Public Service Commission to review applications for power plants in the critical area.[309] When these criteria were developed, a memorandum of understanding was executed between the Critical Area Commission and the Public Service Commission to implement this provision.[310] The memorandum lay unused until the application to expand the Calvert Cliffs Nuclear Power Plant was submitted. The memorandum could not be carried out in practice as written, in large part because it required a joint hearing with the Public Service Commission. Public Service Commission hearings are adjudicatory in nature, while Critical Area Commission hearings are legislative (i.e., no cross examination by an attorney). Diverging from the memorandum and the criteria, the two commissions decided on separate but consecutive hearings in practice. First, the Critical Area Commission assigns a five person panel to conduct a hearing, compile a record of the hearing, and draft a recommendation. The 29-member Critical Area Commission then votes on the issue. The decision of the Critical Area Commission is passed to the Public Service Commission, which then considers the decision of the Critical Area Commission in its permitting process, particularly with regard to mitigation requirements. This process has been used for both the Calvert Cliffs application and the Mid-Atlantic Power Pathway Project application.[311]

[308] MD. REGS. CODE tit. 27, § 01.02.02F(2).
[309] MD. REGS. CODE tit. 27, at § 02.07.02E.
[310] Memorandum of Understanding between the Maryland Public Service Commission, the Chesapeake Bay Critical Area Commission and the Maryland Department of Natural Resources (December 14, 1989).
[311] Telephone Interview with Marianne Dise, Assistant Attorney General and Principal Counsel, Critical Area Commission for the Chesapeake and Atlantic Coastal Bays (Aug. 17, 2009).

Maryland Energy Administration

The Maryland Energy Administration (MEA) does not have regulatory authority over any electricity generation or transmission facilities. Among other things, MEA provides advisory, consultative, training, and educational services to government, non-government, and private entities related to energy; evaluates and coordinates energy related policies among Executive Branch agencies and, where appropriate, those of the various local governments; collects and analyzes energy statistics and information; serves as liaison between state and federal agencies; coordinates and directs integrated energy planning for State agencies and the public that recognizes the benefits and costs of energy conservation and improved efficiency; promotes the transfer and commercialization of energy technology to public benefit; cooperates and coordinates with other state agencies in development of alternative energy technologies; and develops strategic plans and implements policies relating to energy supply management, including the promotion and supervision of research on alternative fuels and energy emergency management.[312]

Grants and State Investments

MEA administers the Solar Energy Grant Program and the Geothermal Heat Pump Grant Program.[313] MEA also administers the Strategic Energy Investment Fund, established by the General Assembly in April 2008 through S.B. 268 and supported by the proceeds from RGGI auctions.[314] The law, as adjusted by the Budget Reconciliation and Financing Act of 2009 (HB101) through June 2011, requires 23% of the Fund to support residential rate relief; 50% to low income energy assistance; 17.5% to energy efficiency, conservation, and demand response; 6.5% to renewable and outreach programs; and 3.0% to program administration.[315] MEA's FY 2009 proposal includes residential, small business, and community renewable energy grants that could be used for the construction of new generating facilities, but all of these appear to be at levels of funding insufficient to effectively subsidize large-scale offshore renewable energy development.[316]

Maryland Energy Plan

The regulatory restructuring of the electricity sector under the Electric Customer Choice and Competition Act of 1999 no longer requires the utilities to submit their integrated resource plans for PSC review and approval. In spite of this policy shift, however, and as discussed in more detail below, the PSC still has authority over the three elements of integrated resource planning, namely transmission, energy efficiency, and generation for reliability or economic purposes[317]

[312] Md. Ann. Code, State Government §9-2003.
[313] Md. Ann. Code, State Government §§9-2007 & 2008.
[314] *See generally* Md. Ann. Code, State Government §9-20B-05.
[315] MEA, Using the Strategic Energy Investment Fund, Proposed FY 2009 Programs, at 1 (2008).
[316] *Id.* at 4, 12, 15, & 16.
[317] Md. Ann. Code, Pub. Utility Cos. §§ 7-201 *et seq*., 7-401 *et seq*., and 7-501 *et seq*. .

Separate and apart from the resource planning undertaken by the PSC, a comprehensive state energy outlook that analyzes fuel resources for all sectors was last developed in 1993.[318] In 2007, the Maryland Energy Administration outlined the steps necessary to develop a new state-wide energy outlook, focusing on the three core values of reliability, price, and environmental responsibility and highlighting the resources MEA would require in order to develop such an outlook.[319] MEA is now spearheading a current Comprehensive Energy Outlook process to develop a snapshot of Maryland's energy status.[320] In an early draft, MEA posited a high-growth scenario for renewables that assumed the state would have 1000 MW of offshore wind capacity installed by 2018, while the low-growth scenario assumed no offshore wind by that year.[321] The likelihood of achieving more offshore wind is dependent upon, among other things, financing, the status of technology, transmission interconnection costs and siting, market forces, federal actions in expediting offshore leasing and permitting, and state policies. Among the state policies relevant to the higher wind capacity scenario are Maryland's renewable energy portfolio standards (REPS), transmission siting, and actions by the Critical Area Commission and Board of Public Works.

Offshore Wind Energy Deployment Strategy

On September 15, 2009, the MEA issued a Request for Expressions of Interest and Information from wind energy developers interested in constructing wind energy generation facilities in the Atlantic Ocean areas adjacent to Maryland's coast. The request is intended to identify opportunities, proposals that the state might consider in developing its strategies for offshore wind, and information that will inform the state on preferred capacities, technologies, water depth, and other issues. The MEA simultaneously announced its launch of a study to evaluate opportunities for offshore wind off the Atlantic Coast, building on marine spatial planning information being compiled by MDNR and The Nature Conservancy, and including additional work still to be announced. [322]

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[318] Md. Energy Admin. & Md. Dep't Budget & Mgmt., Joint Report on MEA's Responsibility in Developing a State Energy Plan (Nov. 1, 2007).

[319] Md. Energy Admin. & Md. Dep't Budget & Mgmt., Joint Report on MEA's Responsibility in Developing a State Energy Plan (Nov. 1, 2007).

[320] MEA, Comprehensive Energy Outlook, Chapter 1 Draft: Demand and Supply Information (July 31, 2009), *available at* http://www.energy.state.md.us/documents/MDEnergySupplyandDemandOutlookDraft7-31mtg.pdf. *See also* MEA, Upcoming Events, http://www.energy.state.md.us/news/events/index.asp (last visited Aug. 12, 2009).

[321] MEA, Comprehensive Energy Outlook, Chapter 1 Draft: Demand and Supply Information 32 (July 31, 2009).

[322] http://energy.maryland.gov/documents/OffShoreREoI91509final.pdf. "Offshore wind has the potential to supply more renewable energy than any other resource in the region," noted MEA Director Malcolm Woolf. "If Maryland is able to successfully harness these resources in a cost-effective way, the State will be able to satisfy its Renewable Portfolio Standard of 20 percent by 2022 and benefit from the growing Renewable Energy Credit Market." MEA, Maryland Examines Potential of Offshore Wind: Issues Request for Expression of Interest for Energy Generation Partners (Sept. 15, 2009). For discussion of the Renewable Energy Portfolio Standard, see *infra*, at p. 53.

Public Service Commission

The Public Service Commission (PSC), an independent regulatory agency, has broad jurisdiction and the authority to regulate public service companies that engage in business in Maryland.[323] The PSC regulates gas, electric, telephone, water, and sewage disposal companies. Also subject to the jurisdiction of the Commission are electricity suppliers, fees for pilotage services to vessels, construction of a generating stations and certain common carriers engaged in the transportation of persons for hire.[324]

Renewable Energy Portfolio Standard

The objective of Maryland's Renewable Energy Portfolio Standard ("REPS") program, overseen by the PSC, is to recognize and develop the benefits associated with a diverse collection of renewable energy supplies to serve Maryland. The REPS Program does this by recognizing the environmental and consumer benefits associated with renewable energy and requiring that a set proportion be included in all retail electricity sales.[325] REPS is divided into Tier 1 renewable sources (solar, wind, qualifying biomass, methane from decomposition, geothermal, ocean, "including energy from waves, tides, currents, and thermal differences," fuel cells, small hydro (less than 30 MW), and poultry litter-to-energy); and Tier 2 renewable sources (hydroelectric from other than pump storage and waste-to-energy). Solar has its own standard within Tier 1.[326] In 2010, REPS is set at 3.025% for Tier 1 renewables, with at least 0.04% from solar, and 2.5% from Tier 2 renewables. Under H.B. 375 passed in 2008, the REPS was significantly increased so that by 2022, Tier 1 sources will be at 20%, with at least 2% from solar, and 0% from Tier 2.[327] Sources are eligible for Tier 1 inclusion regardless of when placed in service (for Tier 2 sources, eligibility is limited to facilities that existed and were operational on January 1, 2004, even if "not capable of generating electricity on that date").[328]

Electricity suppliers meet the REPS through generating or purchasing Renewable Energy Credits (RECs), which are obtainable from certified sources throughout the PJM region,[329] states adjacent to the PJM region, or other states if they sell electricity into Maryland.[330] (PJM-adjacent states will be removed from the geographic scope of the REPS starting in 2011 under HB 375 passed in 2008.) In order to qualify as a renewable energy facility, certification must be obtained from the Maryland PSC.[331] RECs may also be generated by "renewable on-site generators" of Tier 1 or Tier 2 source electricity for

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[323] Md. Ann. Code, Pub. Util. §§2-112, 2-113, 2-121, §1-101(w).
[324] *See generally* Md. Ann. Code, Pub. Util. Co.
[325] Md. Ann. Code, Pub. Util. Co. §7-703.
[326] *Id.* §7-701(l)-(m).
[327] *Id.* §7-703(b).
[328] *Id.* §7-704(a)(1)&(4). This rule also applies to Tier 1 small hydro under §7-701(l)(8).
[329] *Id.* § 7-701(f) (defined as "the control area administered by the PJM Interconnection, Inc., as the area may change from time to time).
[330] *Id.* § 7-701(i)
[331] Maryland PSC, Maryland Renewable Energy Portfolio Standard Program-Frequently Asked Questions, http://webapp.psc.state.md.us/intranet/ElectricInfo/FAQ_new.cfm (last visited June 8, 2009) [hereinafter PSC REPS Facts].

"own use."[332] RECs have a three-year existence, and may be accumulated, sold, or otherwise transferred to meet the REPS.[333] The program originally included credit multipliers for wind, solar, and methane, which have since been phased out.[334] RECs are traded through a statutorily-created market,[335] and overseen through the Generation Attribute Tracking System (GATS), designed by PJM Environmental Information Services (PJM-EIS).[336]

Electricity suppliers who fail to meet the REPS must pay an Alternative Compliance Payment (ACP) of $20 per MWh of Tier 1 non-compliance (raised to $40 MWh by H.B. 375, effective 2011), and $15 per MWh of Tier 2 non-compliance.[337] Safety valves that delay scheduled percentage increases in the REPS kick in for individual electricity suppliers if the cost of compliance with the solar requirement is above 1% of the supplier's Maryland sales revenues in a give year, or compliance with the general Tier 1 standard is more than 10% of such revenues.[338]

A 2006 Maryland Power Plant Research Program (PPRP) report assessed the availability of renewable resources to meet Maryland's RPS, and also the availability of resources for renewable policies established in Delaware, New Jersey, Pennsylvania, and the District of Columbia. The PPRP report advises that there may be insufficient resources located within PJM to satisfy the combined requirements of Maryland, the District of Columbia, Pennsylvania, New Jersey, and Delaware. However, there appear to be ample Tier 1 and Tier 2 resources in PJM *plus PJM's adjacent states* to satisfy Maryland's requirements without new renewable energy facilities. PPRP's analysis suggests that a significant portion of the renewable energy required to meet the Maryland RPS can be anticipated to be generated from eligible sources located in states adjacent to PJM.[339] When the geographical limit imposed by HB 375 takes effect in 2011, however, those adjacent eligible sources will be lost, and other sources within the PJM region may be needed to replace them. PPRP is currently undertaking an update to this report.

The pie chart shown below demonstrates the generation portfolio in the PJM region, totaling 165,000 megawatts.[340]

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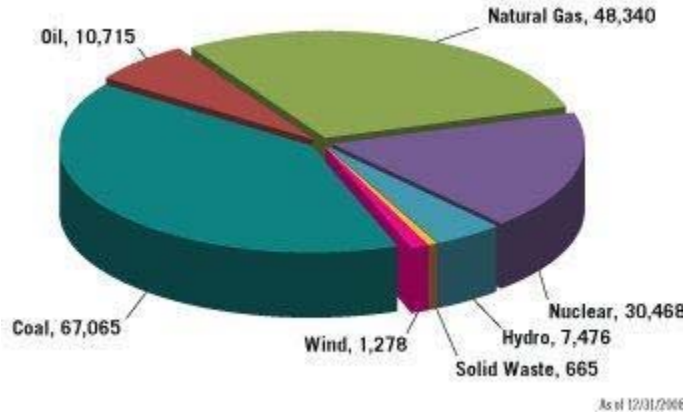
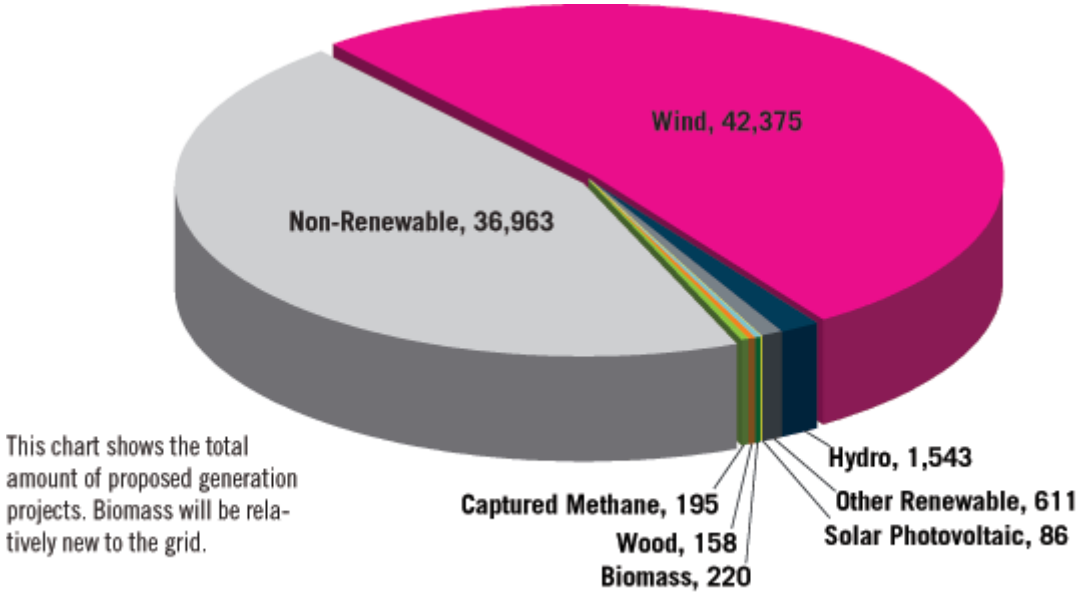
[332] Md. Ann. Code, Pub. Util. Co. §7-701(k).
[333] *Id.* §7-709.
[334] DSIRE Solar, Maryland Incentives/Policies for Renewables & Efficiency, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD05R&re=1&ee=1 (last visited June 8, 2009).
[335] Md. Ann. Code, Pub. Util. Co. §7-708.
[336] PSC REPS Facts; *see also* PJM-EIS, Need for GATS, http://www.pjm-eis.com/gats/about-gats.html (last visited July 6, 2009).
[337] *Id.* §7-705.
[338] *Id.* §7-705.
[339] Md. Dep't of Legislative Services, Fiscal and Policy Note (Revised) for SB 209, 2008 Session, Renewable Portfolio Standard Percentage Requirements – Acceleration, at 7.
[340] PJM Interconnection, LLC, Renewables Today, *available at* http://www.pjm.com/about-pjm/newsroom/renewable-dashboard/renewables-today.aspx.



The next chart shows the amount of proposed generation in PJM's planning queue. More than 50 percent of the projects in PJM's queue are renewable. PJM's planning queue involves a process of interconnection studies and other milestones. Approximately 75 to 80 percent of the proposed projects drop out of the PJM queue process prior to construction and operation.[341]



Certificate of Public Convenience and Necessity (CPCN) Proceedings

A person may not begin construction or modification of a generating station, and an electric company may not begin construction or modification of an overhead transmission line carrying over 69,000 volts, or exercise a right of condemnation, without first

[341] PJM Interconnection, LLC, Renewables Tomorrow, *available at* http://www.pjm.com/about-pjm/newsroom/renewable-dashboard/renewables-tomorrow.aspx

obtaining a certificate of public convenience and necessity (CPCN) from the Commission.[342] The 1971 Power Plant Siting Act designated the CPCN process as a consolidated "one-stop shop" for approvals of new electric generating and transmission facilities, and this remains true despite subsequent revisions to the PUC Article.[343]

Before granting an application for a CPCN, the PSC must provide notice to all interested persons and hold a public hearing regarding the application.[344] In addition to the applicant: 1) the Maryland Office of People's Counsel represents the interests of all residential and noncommercial utility users;[345] 2) PSC staff members participate in, and advocate positions in order to complete the public record;[346] and 3) the Power Plant Research Program (PPRP) within the Maryland DNR is responsible for coordinating the State's comprehensive review of the application and presenting the consolidated position of the State agencies.[347] Finally, any other interested parties, including local government units and organizations have a right to notice and participation in PSC proceedings.[348]

In considering whether to grant an application for a CPCN, the PSC is to take into account:

- the recommendation of the governing body of each county or municipal corporation in which any portion of the construction of the generating station or overhead transmission line is proposed to be located; and
- the effect of the generating station or overhead transmission line on:
    - the stability and reliability of the electric system;
    - economics;
    - esthetics;
    - historic sites;
    - aviation safety as determined by the Maryland Aviation Administration and the administrator of the Federal Aviation Administration;
    - when applicable, air and water pollution; and

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[342] Md. Ann. Code, Pub. Util. §7-207. No PSC approval is needed for construction of generating facilities below 373 kW. COMAR 20.79.01.02.
[342] Md. Ann. Code, Pub. Util. §2-112.
[343] *Baltimore Gas and Elec. Co. v. Dep't of Health and Mental Hygiene,* 284 Md. 216, 231 (1979) (interpreting the 1971 Act to vest the PSC with the sole power and authority to approve on behalf of the State of Maryland the erection of electric generating stations"), cited *In the Matter of the Application of Unistar Nuclear Energy, LLC,* Commission Order 82741, Case 9127 (July 29, 2009), affirming proposed Order. *See also* Maryland Power Plant Research Program, Power Plant Licensing in Maryland ("The Power Plant Siting Act of 1971, augmented by the Electric Utility Industry Restructuring Act of 1999, provides for a consolidated review of CPCN applications in Maryland.")
[344] Md. Ann. Code, Pub. Util. §7-207(c),(d).
[345] Md. Ann. Code, Pub. Util. §§2-201, 2-205.
[346] Md. Ann. Code, Pub. Util. §§2-108, 3-104.
[347] PPRP, Certificate of Public Convenience and Necessity, http://esm.versar.com/pprp/licensing/cpcn/cpcn.html (last visited July 23, 2009). The seven agencies PPRP coordinates are DNR, Environment, Agriculture, Business and Economic Development, Planning, Transportation, and the Maryland Energy Administration.
[348] Md. Ann. Code, Pub. Util. § 7-207.

    - availability of means for the required timely disposal of wastes produced by any generating station.
- For the construction of an overhead transmission line … the *need* to meet existing and future demand for electric service.[349]

The CPCN must incorporate and include all applicable requirements of state and federal environmental laws that affect the facilities being authorized, and the methods and conditions that the PSC determines are "appropriate to comply" with such requirements. In addition, the CPCN "constitutes authority for the person to dredge and construct bulkheads in the waters or private wetlands of the State and to appropriate or use the waters; and registration and a permit to construct" under Title 2, Subtitle 4 of the Environment Article.[350]

When the PSC receives an application for a CPCN that entails dredging or filling in state waters, it must immediately notify the DNR and MDE and supply them with all pertinent information. The CPCN application is treated as an application for "appropriation or use of waters of the State under Title 5 of the Environment Article, and as an application for a license for dredging and filling under Title 16 of the Environment Article."[351] The two departments are to complete necessary studies, investigations, and reviews, and forward these materials to the PSC Chairman along with a recommendation that the CPCN be granted, denied, or "granted with any condition deemed necessary."[352] These results and recommendations are to be presented by the Secretaries or their designees at the PSC hearing on the application, and are made available to the public; within 15 days of the hearing, the Secretaries, on the basis of evidence presented at the hearing, are to make their final, joint, recommendation to the PSC regarding "specific conclusions as to any private wetlands involved and any specific conclusions as to any water use or restriction of water use involved."[353] The PSC recently applied these laws to conclude that it has sole authority to approve environmental conditions for construction of a third nuclear reactor at Calvert Cliffs that will affect state-owned tidal wetlands, and that separate permits are not needed.[354] The PSC ruled that it could incorporate the concerns of other agencies within the conditions the PSC determines to be appropriate under Section 7-208(f).[355]

CPCN Exemptions

[349]Md. Ann. Code, Pub. Util. §7-207(e). While deregulatory restructuring legislation enacted in Maryland in 1999 removed the requirement that the PSC find a "need" for new generating capacity, such a finding is still required for new transmission.
[350] Md. Ann. Code, Pub. Util. §7-208(f), (h); *see also* COMAR 20.79.03.02 (listing specific environmental and socioeconomic information required of applicants for new generating stations).
[351] Md. Ann. Code. Nat. Resources §3-306(a).
[352] *Id.* §3-306(b).
[353] *Id.* §3-306(c).
[354] *Unistar Order*, *supra*.
[355] *Id.* The PPRP, representing the coordinated views of other state agencies, had argued that PSC authority extended to environmental permits for private wetlands but not to state wetlands or non-tidal wetlands.

Section 7-207.1 of the PUC Article, added by SB 566 in 2007, allows an exemption from the CPCN process for certain generating stations under the following circumstances:

- The facility is a land-based wind power generation facility with capacity not exceeding 70 megawatts;
- the electricity that may be exported for sale is sold only on the wholesale market pursuant to an interconnection, operation, and maintenance agreement with the local electric company; and
- the PSC provides an opportunity for public comment at a public hearing.[356]

The exemption does not apply to offshore wind power facilities. CPCN-exempt projects still require approval from the PSC after a limited review.[357] The PSC will review for safety and reliability of the grid, require notification at least 2 weeks before the first export of electricity, and provide opportunity for public hearing and comment. So long as an applicant meets the statutory criteria, the PSC has no discretion to deny the exemption.[358] Nonetheless, an approval of exemption does not constitute an exemption from MDE permitting requirements, nor does it serve in place of such permitting as with a CPCN.[359]

The General Assembly intended that local and county zoning and public safety ordinances would continue to apply to CPCN-exempt wind projects, stating "this Act may not be construed to limit the regulatory authority of any State or local agency with respect to matters relating to a wind-powered generating station that is exempt from the requirement to obtain a [CPCN]."[360] Any federal requirements also continue to apply.

State Level Wind Siting Guidelines

The Wind Energy Technical Advisory Group (Wind TAG), a group of experts, regulators, and stakeholders appointed by the PSC in 2005, developed recommendations in 2006 for "siting guidelines to mitigate avian and bat risks from wind power

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[356] Md. Ann. Code, Pub. Util. §7-207.1(a). Similar exemptions apply for *on-site* generating facilities of any type not exceeding 70 megawatts where less than 20 percent of the annual energy generated is exported or sold on the wholesale market, and any electricity exported for sale to the electric system is sold only on the wholesale market pursuant to an agreement with the local electric company; and also for generating facilities whose capacity does not exceed 25 megawatts, where at least 10 percent of the annual electricity generated is used on site, and where any electricity that may be exported for sale is sold only on the wholesale market pursuant to an agreement with the local electric company. *Id.* These latter exemptions are not relevant to offshore wind power facilities because of the requirements for use of electricity on site, although the last could conceivably be relevant to very small projects (6-10 turbines) associated with offshore facilities needing some local electric power (for research, navigation, and other infrastructure). These exemptions may have more relevance to biomass (including algal biomass) electric generating facilities onshore or near shore where there is a use for onsite electric power.

[357] The PSC approved Dan's Mountain Wind Force LLC's exemption under this section for a 25 turbine facility in Allegany County, on March 11, 2009.

[358] "The Commission may waive an element of the approval process under this section if the Commission determines that the waiver is in the public interest." Md. Ann. Code, Pub. Util. §7-207.1(b)-(e).

[359] PSC, *CPCN Exemptions: Frequently Asked Questions*.

[360] Section 3, ch. 163, acts 2007.

projects."[361] The PSC rulemaking that would have adopted these guidelines under PSC regulations ended without a conclusion at a hearing March 20, 2008 over uncertainty as to the extent of PSC jurisdiction, particularly with respect to CPCN-exempt wind projects, as well as objections from some stakeholders and at least one member of the Wind TAG itself that the guidelines proposed for adoption were too weak.[362] OPC took the position in the rulemaking that the PSC should incorporate in its entirety guidelines developed by U.S. Fish and Wildlife Service (FWS) because they were more comprehensive and for the sake of regulatory uniformity.[363]

Currently no state-level wind siting regulations exist for any level or size wind project, on- or offshore, although such standards could be developed on a case-by-case basis through the CPCN process for wind projects greater than 70 MW. A proposed measure, Senate Bill 771, failed to pass the House of Delegates in Spring 2009; it would have required PPRP to conduct studies to develop performance standards for solar and wind as well as determine whether adequate funds exist to decommission wind and solar systems and restore sites once they cease operation.[364]

In the absence of state-level guidelines for wind siting, and lack of CPCN review over on-shore wind projects less than 70 MW in size, six counties (Calvert, Carroll, Kent, Queen Anne's, St. Mary's, and Talbot) have adopted and at least two more (Dorchester and Somerset) are in the process of adopting local zoning ordinances for small wind energy systems (generally less than 100 kW) based on a model statute developed by MEA.[365] Allegany County recently adopted siting requirements establishing setbacks for industrial-scale wind power, including requiring a 2,000 foot setback from occupied dwellings and 1,000 feet from other significant structures.[366] However, many counties have yet to establish zoning rules for wind, leaving a potential "review gap" where environmental, aesthetic, and public safety concerns are unable to be addressed in any governmental process.[367] However, a contrary concern with the current exemption is that by placing significant authority back in the hands of county or local governments, the ability to achieve state-wide energy policy objectives may be frustrated.

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[361] PSC, Notice of Opportunity for Public Comment on Recommendations of the Wind Energy Technical Advisory Group (July 6, 2006).
[362] PSC, COMAR Rulemaking Session 52, March 20, 2008.
[363] Comments by the Office of People's Counsel on Recommendations of the Wind Energy Technical Advisory Group, RM 24 (submitted Aug. 4, 2006) (citing FWS, *Service Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines* (May 2003)).
[364] Md. Gen. Assembly 2009 Session, Fiscal and Policy Note, Sen. Bill 771: Wind-Powered Electric Generating Facilities and Solar Generating Systems – Performance Standards and Decommissioning and Restoration Studies.
[365] Md. Gen. Assembly 2009 Session, Fiscal and Policy Note, Sen. Bill 771: Wind-Powered Electric Generating Facilities and Solar Generating Systems – Performance Standards and Decommissioning and Restoration Studies. Caroline County is also examining this issue.
[366] M. Sawyers, "County approves restrictions on industrial wind projects," Cumberland Times-News (June 5, 2009).
[367] Comments and Request for Supplemental Comments of the Office of People's Counsel, *In the Matter of the Application of Synergics Roth Rock Wind Energy, LLC*, Case No. 9191, at 3-4 (filed Pub. Service Comm'n April 21, 2009).

Transmission Lines

The Public Utility Companies (PUC) Article, Section 7-207(b)(3) clearly requires a CPCN for "construction of an *overhead* transmission line that is designed to carry a voltage in excess of 69,000 volts or exercise a right of condemnation with the construction."[368] This language might be construed to limit PSC authority over other types of transmission facilities, including submerged lines to reach offshore generating stations.

Other provisions of the PUC Article do not clarify the PSC's role in construction of new submerged or underground lines. Title 12, Subtitle 1 of the PUC Article governs the procedure for undertaking construction or excavation in or around "underground facilities," which include buried and submerged electricity transmission lines, but this does not include the permitting of underground facilities themselves.[369] Subtitle 3 of Title 12 of the PUC Article establishes procedures for the conversion of existing overhead lines to underground facilities, recognizing that conversion is generally in the public interest.[370] Such proceedings can only be used to convert *existing* facilities or "construct, reconstruct, or relocate any other *related* electric or communication facility."[371] The title does not authorize PSC proceedings for permitting or approval of *new* submerged or underground transmission facilities.[372]

The Public Utilities law does not expressly address all of the circumstances of offshore, submerged transmission lines necessary to transport the electricity from offshore wind or wave energy generating stations to the grid. While, arguably, the PSC could address this ambiguity on its own and under its existing authority, clarification by the General Assembly on this question may be desirable in order to expedite offshore energy developments requiring submerged transmission lines.

Other PSC Issues

Long-Term Power Purchase Contracts

Under Commission Order 82105 issued on July 3, 2008, investor owned utilities were required to report on their procurement plans and "recommend which portfolio mix best balances the competing mandates set forth in Senate Bill 400, that is, 'a portfolio of electricity supply that provides electricity at the lowest cost with the least volatility.'"[373] This docket examines the current reliance on Standard Offer Service contracts, currently on two-year competitive cycles. Some parties suggest longer term contracts might

[368] Md. Ann. Code, Pub. Util. §7-207(b)(3) (emphasis supplied).
[369] Md. Ann. Code, Pub. Util. §§12-101(j), 12-102.
[370] Md. Ann. Code, Pub. Util. §12-302.
[371] Md. Ann. Code, Pub. Util. §12-306 (emphasis added).
[372] There are regulations governing construction of new underground electric lines, but these do not apply to extensions less than 33 kV. COMAR 20.85.01-.11.
[373] *In the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland*, Case No. 9117, Comm'n Order No. 82105, at 5 (Pub. Service Comm'n July 3, 2008) (quoting S.B. 400 §7(a)(1)-(2)).

improve the energy portfolio and the development of offshore wind.[374] At the same time, one of the recommendations of the Maryland Climate Change Commission for building out renewable energy in the state is to make use of long-term contracts to ensure development of offshore wind energy.[375] The economic and legal implications of such a move would require further analysis, particularly in view of deregulatory legislation and concerns for "best price."

Bringing New Generating Capacity On-Line: PJM Interconnection Requirements

PJM is the regional transmission organization, regulated by FERC, that coordinates wholesale distribution of electricity throughout all or parts of 13 states and the District of Columbia, including all of Maryland.[376] PJM maintains system reliability through transmission planning, provides for economic-bid based dispatch of generation resources, and oversees the interconnection process for new power plants. Before new generating facilities can be brought on line, they must reach an interconnection agreement with PJM by first filing an interconnection request. PJM facilitates the process of bringing new generation online through guidance manuals[377] and maintains a "queue" of new generator requests.[378] PJM promises to "assure equal, consistent opportunity across fuel types."[379] Because wind and other renewables are intermittent sources, PJM has developed rules that generators must meet to ensure "credible capacity values robust enough to represent capacity during the PJM summer peak period."[380]

FERC "Backstop Authority" to Site Interstate Transmission Lines

The Energy Policy Act of 2005 provides FERC "backstop authority" to permit construction of new transmission lines within the Mid-Atlantic National Interest Electric Transmission Corridor[381] if the state siting authority (PSC) "withheld approval" for more

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[374] BlueWater LLC, the developer of a wind project off Delaware's coast that could supply up to 300 MW of renewable energy to Maryland, intervened in the PSC's investigation to make a case for long term contracts with renewable sources. BlueWater Wind's Initial Comments on Utility Procurement Plans, Case No. 9117 (Pub. Service Comm'n, Nov. 21, 2008).

[375] Md. Comm'n on Climate Change, Climate Action Plan 63 (August 2008).

[376] Md. PPRP, *Maryland Power Plants and the Environment: A Review of the Impacts of Power Plants and Transmission Lines on Maryland's Natural Resources*, CIER-14, DNR Pub. No. 12-1142008-271, at 18 (February 2008), *available at* http://esm.versar.com/pprp/ceir14/toc.htm.

[377] *See generally* PJM Manual 14A Generation and Transmission Interconnection Process, Revision 07 (effective Feb. 1, 2009), *available at* http://www.pjm.com/documents/~/media/documents/manuals/m14a.ashx.

[378] *See* PJM, Generation Interconnection, http://www.pjm.com/planning/generation-interconnection.aspx (last visited July 30, 2009).

[379] PJM, 2008 Regional Transmission Expansion Plan Report, Sec. 8, File 6: Maryland and Washington, DC, *available at* http://www2.pjm.com/planning/downloads/rtep-2008/2008-section8-md.pdf.

[380] PJM Manual 21 Manual 21: Rules and Procedures for Determination of Generating Capability, Appx. B: Calculating Capacity Values for Intermittent Capacity Resources Rev 07 (effective June 1, 2008), *available at* http://www.pjm.com/documents/~/media/documents/manuals/m21.ashx.

[381] The area included in the Corridor includes all of Maryland except a small area on the Southeast Coast of the Chesapeake Bay. See 72 Fed. Reg. 56,992 (Oct. 5, 2007); DOE, DOE Announces Southwest Area and Mid-Atlantic Area National Interest Electric Transmission Corridors,

than one year after the initial date of filing or "conditioned approval" in such a way that the project would no longer relieve transmission congestion or be economically feasible.[382] The Fourth Circuit held in 2009 that the term "withheld approval" does not include "affirmative denial" of a permit by the state authority.[383] Backstop authority will also exist if the applicant is a "transmitting utility" that does not qualify for an application in the state because it does not serve end-users in the state.[384] This FERC authority may be available for transmission projects from offshore generating stations that wish to construct or use transmission lines in Maryland and do not serve end users in Maryland.

Condemnation

Municipal corporations and counties may adopt regulations relating to the laying of pipes and lines.[385] Further, gas companies, oil pipeline corporations (limited to carriers of refined product), and electricity companies have authority to obtain property interests, including easements and rights-of-way, by condemnation if necessary to carry out their purposes.[386] In order for electric generators to exercise a right of condemnation, they must obtain a CPCN and the PSC must find that "the capacity is necessary to ensure a sufficient supply of electricity to customers in the State."[387]

Additional State Energy Siting and Operations Resources

Power Plant Research Program and Power Plant Siting

Under the Power Plant Siting Act of 1971, the MDNR houses the Power Plant Research Program (PPRP), which provides technical expertise and support for electricity generation issues generally in Maryland and has responsibility to develop state-wide plans for new generation and transmission siting.[388] Among other duties, the PPRP is authorized to prepare a cumulative environmental impact report on power plants and transmission lines every two years.[389]

The Power Plant Siting Act also established a method for "power plant site acquisition and generator lead route designation" that could be used to involve the state in siting of facilities apart from proposals by applicants; this provision is still on the books despite

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http://www.energy.gov/news/5538.htm (Oct. 2, 2007); Map of MANIETC, available at http://www.energy.gov/media/MidAtlantic_Corridor_Map091707.pdf.

[382] 16 U.S.C. §824p(b)(1)(C)(i)-(ii).

[383] *Piedmont Envtl. Council et al. v. FERC*, 558 F.3d 304 (4th Cir. 2009).

[384] 16 U.S.C. §824p(b)(1)(B).

[385] Md. Ann. Code, Pub. Util. §§7-102, 7-103.

[386] Md. Ann. Code, Pub. Util. §§5-401 to 5-411.

[387] Md. Ann. Code, Pub. Util. §7-207(b)(2); COMAR 20.79.03.03.

[388] Md. Ann. Code. Nat. Resources §3-304.

[389] Md. Ann. Code, Nat. Resources §3-304. The PPRP published the fourteenth report in 2008. PPRP, *Maryland Power Plants and the* Environment, PPRP-CEIR-14, DNR Pub. No. 12-1142008-271 (Feb. 2008). The 2007 Energy Transition Report singled out the PPRP for review "to identify any organizational redesign, service improvements, elimination or consolidation in order to increase effectiveness." Transition Report, at 6. The PPRP was reauthorized in 2009 for an additional 5 years without changes in its mission or responsibilities. See Chapter 167 Laws of 2009.

electricity regulatory restructuring and reliance on the private sector and power marketers affiliated or unaffiliated with utilities to provide new generating capacity.[390]

Under this authority, sites owned or to be acquired by electric utilities were inventoried, and the Secretary of DNR on the advice of the Secretary of Business and Economic Development "shall acquire in the name of the state a sufficient number of sites to satisfy the expected requirements as submitted by the Director of Planning and the Director of the Maryland Energy Administration." Site selection is to be based on the research finding of environmental and economic studies required under § 3-304, and the Secretary and local governing bodies are also to determine generator lead routes. All investigations into site selection shall be completed and the site purchased within two years of site identification.[391]

Section 3-305 also established procedures for acquisition, use, and sale of sites purchased by the DNR under this authority. Agents, employees, and contractors of the DNR may enter private property (with the consent of the owner) "to collect data and otherwise conduct environmental and engineering studies related to potential sites for electric generating facilities, potential corridors for rail and pipeline access … and potential overhead transmission lines in excess of 69,000 volts."[392] If the PSC determines that a site is needed, it may "request the Secretary of Natural Resources to purchase a power plant site."[393] Factors that are to be considered in determining whether a need exists are "the suitability of sites owned by an electric company, both within and outside the State" and "anticipated growth of electric power demand and the alternative means and locations for meeting that demand, both within and outside the State."[394]

These provisions no longer conform to the way in which Maryland's electric power system is regulated. But the authority still exists for the state to identify (and where necessary purchase) sites suitable for and needed to address the state's energy needs. Such identification and planning authority could conceivably be used to address siting for at least "lead routes" from offshore facilities.

Maryland Environmental Service

The Maryland Environmental Service (MES) was formed in 1970 to provide environmental services primarily in the form of waste management, water treatment, and

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[390] "The process by which new power plants are proposed and developed changed as a result of the move to retail competition and electricity restructuring. Maryland's utilities are not longer responsible for building new generation. Resource planning is now a function of the regional electricity market, driven by economics and price signals." PPRP, *Maryland Power Plants and the* Environment, PPRP-CEIR-14, DNR Pub. No. 12-1142008-271 (Feb. 2008), at 14.

[391] Md. Ann. Code. Nat. Resources §3-305(a).

[392] Md. Ann. Code. Nat. Resources §3-305(f).

[393] Md. Ann. Code, Pub. Util. §7-202(a).

[394] Md. Ann. Code, Pub. Util. §7-202(b). Public notice and a hearing must be held in the legislative district in which the site under consideration is located before the PSC may determine that a power plant site is needed. Md. Ann. Code, Pub. Util. §7-202(c). Notwithstanding any other provision of the DNR power plant subtitle, "the Secretary may acquire a site for an electric company if the [PSC] requests the Secretary to purchase a site." Md. Ann. Code. Nat. Resources §3-305(a)(3).

other environmental remediation. In 2009, the General Assembly passed the Maryland Environmental Service Act (SB 14), which significantly expands MES's powers to undertake new energy generation and transmission projects, effective October 1, 2009.[395]

The General Assembly gave MES new authority to undertake an "energy project," defined as "any service, facility, system, or property, real or personal, used, useful, or having present capacity for use in connection with (1) energy conservation; or (2) the production, generation, or distribution of energy from a renewable or other energy source."[396] MES may provide "energy conservation, generation, and transmission services," but is not to participate "in competitive bidding with the private sector to provide its services."[397]

MES now has power to enter into partnerships with municipalities or private entities, establish private corporations, enter into contracts, exercise powers of eminent domain, own property, set rates or charges for sale of fuels or electricity, issue bonds and notes and generally undertake all activities necessary to construct new energy generation and transmission facilities (not limited to renewables).[398] MES can conduct or sponsor research on energy generation.[399] Further, MES is authorized to operate outside rules established by the State Finance and Procurement Article.[400] MES is not "deemed to be a public service company within the meaning of the Public Utility Companies Article," except that the law does not "restrict any control which the PSC is empowered to exercise over any energy project authorized by this subtitle."[401]

MES's experience with owning and operating capital-intensive environmental projects, coupled with its newly expanded authority to undertake public/private partnerships for new energy generation and transmission projects make it a possible candidate to lead or assist in development of offshore energy development in Maryland. MES has some experience with construction of artificial reefs in state waters.

Maryland Environmental Policy Act

The Maryland Environmental Policy Act requires state agencies to prepare an environmental effects report on proposed state appropriations funding of *state* actions significantly affecting the natural, socioeconomic, and historic environment.[402] This provision applies separately from similar economic, fiscal and environmental impact reports required under specific laws such as the Coastal Facilities Review Act. It could

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[395] *See* Ch. 183, 2009. *See generally* MES, Energy Solutions from MES, http://www.menv.com/energy.shtml (last visited August 4, 2009).
[396] Md. Code Ann. Nat. Res. §3-101(g).
[397] Md. Code Ann. Nat. Res. §3-102(a). It is intended to "promote the conservation of energy usage and provide for the production of energy from solid wastes and renewable and other sources."
[398] Md. Code Ann. Nat. Resources §§3-104, 3-115.
[399] Md. Code Ann. Nat. Res. §3-105(c).
[400] *Id.* §3-103(g).
[401] *Id.* §§3-128, 3-102(b).
[402] Md. Ann. Code, Env't §1-301 et seq.

apply if the state itself undertook state-funded construction of alternative energy facilities.

Recommendations

This examination of Maryland's laws and policies and the current offshore energy context in the region leads to several recommendations to Maryland agencies. There are additional areas of potential improvement discussed above in context, but the following are highlighted as potentially important. Maryland can also consider drawing on the experience of other states. Several states' recent experiences with marine spatial planning and offshore energy are discussed in a report by the Environmental Law Institute for Virginia's Coastal Program.[403]

Control the Decisionmaking Context for Maryland Offshore Energy

1) Form an interagency council or working group (MEA, MDNR, MDE and others) to develop consistent policy positions on anticipated forms of offshore energy activities to facilitate decisionmaking. It is important for the state's pursuit of offshore energy policies that it determine a consistent posture toward new forms of energy development. While certain programs can be updated and improved no matter what the state's objectives are, many choices turn on whether the state wants to encourage, discourage, or maintain neutrality toward various foreseeable energy activities. Clear policy objectives will enable Maryland to make decisions about making appropriate legal and institutional improvements *in advance* of external energy proposals and applications.

The Governor and Maryland executive agencies have articulated support for offshore wind energy in the Atlantic Ocean. In September 2009 the MEA requested expressions of "interest and information" from wind developers, noting that "the wind resources in Maryland's [Atlantic] coastal waters may be among the best in the nation."[404] MEA also states that Maryland "supports the efforts of the Department of Interior's Minerals Management Service, which has developed a set of guidelines for leasing of specific blocks of federal ocean territory" for alternative energy projects.[405] MEA previously noted that "Offshore wind has the potential to supply more renewable energy than any other resource in the region. The wind resource available in the Mid-Atlantic region surpasses that found in the areas of the Midwest that have seen rapid wind energy development."[406] In September, the Governor also commented to MMS on behalf of the state, "Maryland supports the development of ocean renewable energy in order to support our renewable portfolio standards, especially the appropriate development of offshore wind energy production and transmission…[T]he untapped wind power off the Mid-Atlantic coast should be a major contributor to meeting this goal."[407] This articulated

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[403] Environmental Law Institute, *Virginia Offshore Energy Development: Law and Policy Review and Recommendations* (December 2008), available at http://www.elistore.org/reports_detail.asp?ID=11338&topic=Oceans

[404] Maryland Energy Administration, Request for Expressions of Interest and Information (Sept. 15, 2009), avail. at http://energy.maryland.gov/documents/OffShoreREoI91509final.pdf.

[405] Id.

[406] MEA EmPOWERing Maryland Clean Energy Programs FY10, at 19 at http://energy.maryland.gov/documents/FY2010programbook.docx

[407] Gov. Martin O'Malley to S. Elizabeth Birnbaum (Sept. 21, 2009).

policy should be carried forward in a systematic way in order to anticipate and address potential obstacles and accommodate environmental permitting requirements.

The issue of whether to allow or consider wind facilities within the Chesapeake Bay presents another policy issue which may be best addressed in principle, in advance of any proposal.[408] The state may wish to bar such activities, or to consider allowing them under certain conditions. If such activities are to be considered within the Bay, policy adjustments are indicated that would not otherwise be relevant.

Maryland also has recently articulated a position on federal oil and gas exploration and leasing in Atlantic waters off its shore. Governor O'Malley's comments to MMS in September 2009 state that Maryland "does not support offshore oil and gas activities (e.g., leasing, production, and transmission) off the coast of Maryland during this 2010-2015 planning cycle."[409] The comment letter did not take a position on exploration not directly connected to the MMS leasing process (e.g. seismic testing), but it said that a reconsideration of Maryland's position for the next oil and gas planning cycle would depend on collection and analysis of additional ecological data and information on the potential for oil and gas resources, among other things. The letter also noted the lack of existing infrastructure to support oil and gas activities on Maryland's Atlantic Coast, and emphasized that "if existing or potential locations [for such infrastructure] are identified, they should be prioritized to support offshore wind energy development."[410] These priorities serve as a broad articulation of policy that should be worked on by informed Maryland agencies to develop a coherent set of objectives. In Maryland's 1978 Coastal Zone Program document, the state noted that it did not oppose offshore oil and gas activities, and that "exploration, development and production of oil and gas will not inherently conflict with Maryland's program" but that environmental safeguards would apply and that OCS alternatives should be chosen that "have the least adverse impact on coastal lands and waters."[411] Virginia a few years ago enacted legislation calling on the federal government to allow OCS exploration off Virginia's coast for natural gas only, and only 50 or more miles offshore. The MMS used Virginia's approach to define the shoreward boundary of proposed OCS lease sale 220, but has also maintained that federal law does not allow it to distinguish between gas exploration and "oil and gas" exploration and development.

As for algal biomass energy facilities, this is a new and experimental technology. Maryland should consider whether to support or discourage such activity including, for example, whether it might be suitable to allow in state waters (such as aquaculture for biomass), allow experimentally subject to regulation, allow with limitations within the

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[408] Such a use would be subject to state permitting and Corps of Engineers permitting, but not to MMS review or leasing. It is realistic to consider the attractiveness of wind facilities in the Bay given the robust wind resource, the relatively shallow waters, and the proximity to the power grid and potential users. A firm recently cited similar considerations in proposing to site 106 wind turbines in New Jersey waters in Delaware Bay. Daniel Walsh, "Ocean County firm hopes to construct 106 wind turbines in Delaware Bay," *Press of Atlantic City* (August 24, 2009). The firm filed for placement of meteorological towers.
[409] Gov. Martin O'Malley to S. Elizabeth Birnbaum (Sept. 21, 2009).
[410] Id.
[411] Maryland's Coastal Zone Program document, at 357.

critical area, limit to closed loop systems onshore, or some other approach. Maryland need not have a fully developed approach from the outset, but adjustments of its laws and policies would benefit from at least some review of what issues and tradeoffs the state might be willing to consider.[412] Maryland may also wish to consider whether to encourage potential wave and tide proposals. These are far less likely given the limitations of the resource, however.

2) Initiate an offshore alternative energy "task force" under the April 2009 MMS rules to guide research, policy, and decisionmaking that may affect leasing of OCS lands off Maryland for wind energy. The MMS emphasized in its final rule for offshore leasing for alternative energy, that it would promote the formation of task forces representing a state governor (and affected local and tribal governments) when considering leasing. 30 CFR 285.102(e). Given Maryland's posture supporting responsible offshore wind energy development, it should request formation of a task force and include participation from relevant state agencies and others in order to frame the MMS's approach and prioritize necessary research and objectives.

Some other MARCO states have already begun to do so. On September 15, 2009, for example, Virginia submitted a formal request to MMS to form a federal-state-local task force to guide and facilitate the leasing process to support offshore wind energy development off Hampton Roads.[413] The Maryland Energy Administration stated the same day that Maryland will "continue to work with the MMS to form a state/federal task force to structure a leasing arrangement" for the OCS.[414] State control of the shape and tasks of this task force will be very important, and can best occur if the state organizes its approach.

A Maryland-MMS task force can profoundly affect the identification of resource conflicts, state and local objectives, areas off limits, areas compatible with protection of marine resources and development of best management practices (BMPs) for eventual lease sale offerings, leasing, site assessment plans, and construction and operations plans. MMS in its rule requires use of Best Management Practices by leaseholders, but the rule itself does not define BMPs.[415] The December 2007 Record of Decision on MMS's programmatic environmental impact statement did identify "initial mitigation measures" including "15 interim policies and 52 initial best management practices." However MMS noted in the preamble to its April 2009 rule that "new measures will be identified as appropriate," including in guidance.[416] The Guidelines issued by MMS in July 2009 state that these chapters will be "posted at a later date."[417] Accordingly, Maryland should have

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[412] Virginia's university-based Coastal Energy Research Consortium is reviewing some of the relevant technical issues that might inform Maryland's initial posture.
[413] http://www.governor.virginia.gov/MediaRelations/NewsReleases/viewRelease.cfm?id=1084
[414] Maryland Energy Administration, Request for Expressions of Interest and Information (Sept. 15, 2009), avail. at http://energy.maryland.gov/documents/OffShoreREoI91509final.pdf.
[415] 30 CFR 285.621(e).
[416] 74 Fed. Reg. at 19693 (April 29, 2009).
[417] Minerals Management Service, Guidelines for the Minerals Management Service Renewable Energy Framework (July 2009).

the opportunity to influence the development of BMPs and other conditions if it requests formation of a task force.

3) Form a state working group to anticipate and address OCS energy development issues that will trigger NEPA review. MMS is engaged in several separate activities that will trigger NEPA review. Maryland should maintain an interagency offshore energy working group (which may be integrated with the group recommended in recommendation #1) in order to coordinate a strategic approach to the MMS five-year oil and gas plans, the proposed mid-Atlantic oil & gas lease sale off Virginia, the proposed geological and geophysical survey program, review of offshore wind lease sale plans, and other issues. It is better to have a coordinated approach to these issues and to their tradeoffs, rather than simply regarding each proposal as a separate NEPA commenting opportunity where the state identifies its environmental needs and concerns. Moreover, a working group within Maryland state government will make it easier to coordinate issues with other coastal states (through MARCO) where there is a need to do so. Among the issues that could be addressed is when and under what circumstances the state may wish to become or insist on becoming a "cooperating agency" in a given NEPA process involving offshore energy resources. This same group could also identify areas and issues where Maryland's federal consistency lists should be strengthened and supplemented (see below).

4) Maryland should support marine spatial planning for the uses of federal and state waters off the Atlantic shore.[418] By planning for OCS and state waters in advance of leasing proposals and permit applications, Maryland can frame the resource identification and use questions that will drive future decisions by MMS, its own agencies, and other states. The new interstate MARCO initiative may also help identify living resources, ocean usage, and offshore energy development priorities.

> **4a) Maryland should actively push the development of the Federal Oceans Task Force "framework for coastal and marine spatial planning" toward seamless consideration of waters inside and outside the three-nautical-mile limit.** Marine spatial planning identifies ecological resources and human uses of the ocean, and attempts to define where certain uses can or should be permitted, permitted with conditions, or excluded in order to meet the objectives of the plan. Maryland and other MARCO states should carve out a major role for the states in the framework and in the federal activities that follow the task force's work. If the proposed framework is solely federal, or draws a sharp dividing line at the three-mile limit, many key issues and resource will not be addressed. Moreover, states should make sure that the approach includes resources of concern to the states, and guarantees them not only a seat at the table but also a major role as manager

[418] A prior analysis prepared by the University of Delaware's Mangone Center for Marine Policy recommended convening a Maryland Ocean Management Task Force to establish principles for sustainable development, set goals, targets, and timetables, improve governance, identify funding mechanisms, and put into place processes for regional cooperation on oceans. Cicin-Sain, B. et al., Toward a Vision for Maryland's Ocean (Dec. 2006), at 143-144.

of the coastlands and submerged lands out to the three-mile limit.[419] On August 14, 2009, the MARCO states commented to the task force, calling for "a national policy that provides for a *full partnership* with the coastal States in the management of the coast and ocean, and that accounts for the diversity of local and regional resources and issues." MARCO recommended that the implementation framework "s*upport state and regional roles through strong legislative initiatives*….integrating ecosystem-based approaches into appropriate ocean legislation, including new legislation supporting marine spatial planning; reauthorizing and strengthening laws governing state roles, including the Coastal Zone Management Act and the Clean Water Act; and promoting new legislation supporting regional ocean governance." MARCO also called for "dedicate[d] funding and staff support to sustain regional efforts."[420]

4b) Maryland should participate in preparing a regional oceans plan in collaboration with MARCO states and federal agencies. Marine spatial planning will facilitate the identification of appropriate sites and corridors for energy facilities, the coordination of permitting, and appropriate deference by federal agencies to state objectives.[421] MARCO's comments to the Oceans Task Force offered the mid-Atlantic area as "an ideal testing ground for new approaches in marine spatial planning." Collaboration, given the relatively short coastlines of each of the states, is far more important and significant than competition – especially to ensure that each state is protected in any use of the OCS or state waters. Such a plan might be started on a limited basis focusing on living resources and potential nearshore areas needing protection – which could help facilitate understanding of constraints on energy development.[422] For example, Maryland might initially plan with Virginia and Delaware to deal with specific coastal and marine issues relevant to living resources, energy, and management of the common coastline and barrier islands from Cape Henlopen to Cape Charles (or Virginia Beach). Any of these approaches may attract federal dollars to support necessary action that could expedite understanding of the

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[419] NOAA Administrator Jane Lubchenco commented in August, "I think, in the time we have available, we will be making recommendations about a fairly generic approach framing what [marine spatial planning] is, what it looks like, who might be responsible and what it would include." Allison Winter, "White House Task Force Crafting 'Marching Orders' for Managing Oceans," *New York Times* (Aug. 24, 2009).

[420] http://www.whitehouse.gov/assets/formsubmissions/54/1fc1b03a01d04cff91cbf6d730ceef48.doc

[421] Maryland has previously anticipated this in its discussion of the need for "an ocean resource management plan." Maryland Coastal Zone Management Program, 2006 CZMA § 309 Assessment and Strategy, at 59.

[422] The Nature Conservancy (TNC) has done some of the needed work on living resources for Virginia marine waters, and is compiling data on living resources and habitats in federal waters from Cape Hatteras to the Gulf of Maine as part of the Northwest Atlantic Marine Ecoregional Assessment. VCERC has been compiling and mapping data relevant to shipping lanes, energy, defense telecommunications facilities and other uses, as well as wind data. And TNC and VCERC are co-developing some spatial products. Significantly, TNC is now working under an agreement with Maryland DNR to identify data on ocean uses in order to develop an atlas and decision support approach for offshore energy decisions. The MMS/NOAA Multipurpose Marine Cadastre, a "submerged lands spatial information system consisting of legal, e.g., real property/cadastre, physical, and cultural information in a common reference framework," also offers access to some of the relevant information, although minimal ecological data at this time. http://www.mms.gov/ld/PDFs/mmc-factsheet2pg.pdf

Atlantic's resources and facilitate collaboration on, at least, wind energy opportunities. That might hasten the realization of benefit to electricity users in the region if such facilities prove to be compatible with other OCS uses and ecological values.[423]

Update Coastal Consistency Provisions

Two areas of federal consistency deserve Maryland's attention as the state prepares for offshore energy decisions and proposals.

5) Maryland should update its list of identified federal actions and permits to include additional offshore activities, and update its geographic location designations to include actions in and near adjacent states' waters - interstate consistency.[424] Effective engagement on federal consistency review of federal actions is improved where the relevant decisions have been designated for consistency review in Maryland's CZMP. Maryland's 1978 list of activities for which it intends to exercise coastal consistency review is in fairly good shape, but the list does not clearly anticipate alternative energy issues, nor does it deal with, among other issues, Rights-of-Way and Rights of Use and Easement for offshore electric transmission corridors that will traverse federal waters off Maryland without entering Maryland. (The existing list refers only to pipelines on the OCS). Also some of the permit identifications and agency references are outdated. Maryland should provide for coastal consistency review of federal subsidies and funding for certain possible state and local energy projects not currently listed, such as wind/solar/algae/etc.

Maryland's geographic locations for interstate consistency review should include the waters of Delaware, Virginia, and New Jersey at least as to offshore energy infrastructure, given the proximity of the respective coasts. Note that some of these states are being asked to consider energy facilities within, or at least partly within, state waters as well as in federal waters, so that reliance solely on "OCS development" as the trigger will not always guarantee that Maryland will have federal consistency review.

6) Maryland should update its NOAA-recognized enforceable policies and add additional policies as needed to address wildlife, submerged lands, best management practices. Federal consistency review (and ease of engagement with the federal consistency requirements) would be facilitated if Maryland updated its enforceable policies and published in clear, succinct form what enforceable policies are part of Maryland's approved program. This will, among other things, make it easier to interact

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[423] Maryland should also consider Virginia's legislative invitation to engage in an interstate compact, whether on this wind energy issue or on an expanded basis. Va. Acts 2009, ch. 316, codified at Va. Code §2.2-6000. Legislative endorsement might provide additional continuity to interstate efforts.

[424] NOAA's Office of Ocean and Coastal Resource Management recommended that Maryland should "consider expanding the use of the CZMA federal consistency provisions by….reviewing and updating its listed federal activities (i.e., federal activities, licenses, permits and funding activities designated for review)." OCRM, *Final Evaluation Findings, Maryland Coastal Zone Management Program, April 2004 to September 2007* (Feb. 2008), at 31 ("Program Suggestion #5").

with federal agencies and applicants. Maryland's 1978 program has had additions and legislative changes approved on six subsequent occasions (most recently in 2005), but many Maryland laws and policies are not now part of Maryland's approved program for federal consistency purposes. These include, for example, the Critical Areas law amendments adding the Atlantic Coastal Bays, and more recent amendments. In addition to completing its long-pending updates to the coastal program, Maryland should consider adding more enforceable policies which, if adopted, establish preferred corridors, best management practices, protection of birds and fish species, directional drilling, bonding, etc. See Recommendation # 7 and following.

Set Conditions for Use of Maryland's Waters

7) Whether or not marine spatial plans are prepared BPW/MDE/MDNR should adopt a planning regime for state waters and submerged lands that defines potential corridors, areas off limits, and suitable conditions. Currently, each proposal for use of Maryland's submerged lands is addressed independently upon application. Current Maryland laws provide sufficient basis to control and condition uses of these state lands. If, however, Maryland desires to promote efficiency and facilitate appropriate proposals (where offshore energy is desired or acceptable), the state agencies with jurisdiction and expertise will be able to influence likely development proposals by setting criteria, conditions, and locations. Maryland can define the broad conditions that may make corridors acceptable or less acceptable, identify requirements for co-location of facilities (so as to minimize the footprint of various successive activities),[425] and provide presumptions for directional drilling rather than excavation for transmission lines and pipelines traversing the shore and state waters.[426] Similarly, licenses and easements can be conditioned to provide for narrow footprints, and/or allowing re-disturbance for subsequent co-locations. *These Maryland agencies may also define or designate preferred corridors.* If Maryland defines these conditions (and/or areas) it will have greater control over what areas are studied in federal EISs for alternatives, and more influence on decisions because of coastal consistency. It will also define its expectations for would-be energy developers seeking to site facilities in, or to traverse, state waters.

Maryland should consider whether to identify and compile protected areas within state waters where no facilities will be authorized, except under extraordinary circumstances, which may be defined by legislation or regulation. There are numerous existing authorities to identify areas protected for particular purposes, such as state fish refuges, natural heritage areas, SAV protection zones, and the like. The limitations and exclusions vary.

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[425] Pepco Holdings, Inc. (PHI) and Maryland Broadband Cooperative recently entered into an agreement "to identify and choose a single utility corridor across the Chesapeake Bay" as part of PHI's proposed Mid-Atlantic Power Pathway (MAPP). Pepco Holdings, Inc., News Release (March 24, 2009), available at http://www.powerpathway.com/images/MAPPS/Maryland%20Broadband%20Cooperative.pdf Such an approach could be articulated as a state policy or regulatory presumption.

[426] There is no such presumption in Maryland law, except with respect to oil and gas drilling in the Critical Area, and as implied by the Beach Erosion Control Law (which does not authorize construction in the beach protection area on the Atlantic shore). Maryland could consider whether to specify this approach and indicate the general spatial extent of such a requirement.

8) Consider amending the Coastal Facilities Review Act to address facilities related to offshore alternative energy. CFRA does not help with review of offshore alternative energy facilities, even though, for example, a fabrication yard for construction or preparation of drilling equipment or platforms for installation of windmills might include impacts similar to that for petroleum equipment. And the installation of a submerged or underground electrical transmission cable might share at least certain impacts with that of an offshore oil or gas pipeline. The one-stop permitting approach and environmental review coordinated by MDE offer some advantages to the state, so the law could be amended to add alternative energy drilling support facilities including platforms/staging and assembly, and electric transmission lines from offshore if state regulators want to coordinate using an existing mechanism.[427] However, CFRA currently gives an implicit veto to counties over the approval of projects based on their local land use laws.[428] This provision sets up serious conflicts if the county is not supportive of federal or state energy objectives, so if CFRA is amended to include certain alternative energy support facilities, the state should in appropriate circumstances be authorized upon specific findings to permit the facility despite the determination of a county.[429]

9) Make changes to the Critical Area Criteria or operation of the program to facilitate alternative energy siting in appropriate places, and to eliminate ambiguities when necessary, in consultation with the recommended state working groups,[430] including:

> **9a) The Critical Area Commission should make it clear that transmission lines from offshore alternative energy facilities are within the definition of "regional or interstate facilities [that] must cross tidal waters."**[431] This will make it possible to site these lines in appropriate locations without limiting them to Intensely Developed Areas.
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> **9b) The Critical Area Commission should determine how to treat transmission lines from small wind projects in state waters for purposes of critical area siting.** Transmission lines from wind projects (including especially small wind projects) located in state waters may be more problematic than those from federal waters, because they may be neither regional nor interstate. The Commission may need to adopt revised criteria to allow these to be sited.
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> **9c) The Critical Area Commission should consider whether the prohibition against siting power plants on state lands not in intensely developed areas**

[427] Md. Ann. Code, Envt. § 14-501(e).
[428] Md. Ann. Code, Envt. § 14-506(c) ("County action prerequisite to processing application"), § 14-507(a), § 14-508(a)(2).
[429] Unless the county "termination of processing" provision is fixed, it is probably not desirable to extend to CFRA to alternative energy facilities and support facilities.
[430] The Critical Area Commission can provide essential advice to Maryland interagency work groups and a Maryland state-federal OCS Task Force how best to accommodate the challenges of emerging state policies on energy while protecting the values of the Critical Area Program.
[431] COMAR 27.01.02.02F.

should be re-evaluated in the context of offshore alternative energy generating facilities (e.g. windmills) that may be sited on state submerged lands.[432] If this is desired as a matter of state policy, it could be done by, among other approaches, defining "power plants" so as not to include certain types of electrical generators such as offshore wind turbines, by explicitly exempting such electrical generators from this provision, or by amending the exception requirements to better accommodate offshore alternative energy production in suitable locations in state waters.

10) Make changes to the Critical Area Criteria where warranted by state policy to clarify the treatment of OCS oil and gas pipeline siting.

10a) The Critical Area Commission should clarify whether oil and gas pipelines from the OCS are "utility transmission facilities" within the definition of activities that are prohibited outside of IDAs and subject to showings of water quality improvement.[433] Such production pipelines meet part of the definition of "utility transmission facilities" as "fixed structures that convey or distribute resources," but they are not operated as what we ordinarily think of as "utilities," in contrast with the examples offered in the definition.[434] If they are within the definition, such pipelines may be regional or interstate facilities needing to cross tidal waters, and hence allowed to cross critical area in the Atlantic Coastal Bays.

10b) The Critical Area Commission should also clarify whether oil and gas pipelines from the OCS are "utilities" excluded from habitat protection areas, including the buffer, except where there is "no feasible alternative."[435] If the pipelines don't fall within this definition are they allowed in the buffers of IDAs and LDAs if they meet the standards of water dependency, need, and minimization of impacts?[436]

11) Develop bird/bat/wildlife protection standards together with neighboring states. Maryland's laws and policies for protection of wildlife will be relevant to offshore energy, and will be used in commenting on EISs and for federal consistency. However, such standards will be more useful and likely to be deferred to by federal agencies if they reflect a consistent approach to the regional wildlife resource, especially given the Atlantic flyway. Virginia recommended development of regional standards in its comments on the last five-year MMS plan for the OCS, and on the proposed OCS renewable energy rule. Rather than have separate standards and approaches, the MARCO states should coordinate and insist on a common approach given the significance of the species and linkage of their habitats. MDNR can draw on its own work, the US Fish & Wildlife Service guidelines, proposed regulations submitted in the administrative docket,

[432] COMAR 27.02.05.03B(1)(d)
[433] COMAR 27.01.02.02F.
[434] COMAR 27.01.01.01B(73).
[435] COMAR 27.01.02.04C(1)(b), 27.01.02.05C(7)
[436] COMAR 27.01.03.03A, 27.02.05.04B.

RM 24 (which is focused chiefly on land-based wind), and the collective research of coastal states to support a consistent regional protection regime that could be incorporated into any MMS lease as a Best Management Practice, and that can guide site selection as well. MARCO's current action plan does call for identifying Mid-Atlantic habitats and migratory pathways, beginning with compilation of existing research by December 2009 and development of a research needs assessment to support potential federal funding requests by March 1, 2010. It may be important to establish some interim guidelines and default positions pending the funding and completion of research.

12) Clarify the definition of "take" under state endangered species laws. Maryland should consider its definitions of "take" and consider when or whether to allow or consider "incidental take" procedures. These concerns arise not just with offshore energy, but with other applications of ESFCA and ESCA.

13) Develop fish/shellfish protection standards and strategies in Maryland and with neighboring states to protect these resources from foreseeable impacts of offshore energy. Maryland should review whether its existing rules offer adequate guidelines for protecting habitats and areas important to fisheries from degradation resulting from potential offshore energy facility siting, construction, operation, and decommissioning. Such standards will be more useful in the federal NEPA environmental impact process and federal consistency if they reflect a regionally consistent approach to common resources. Maryland and its neighboring states, operating through MARCO and the relevant interstate fisheries councils and commissions should develop a consistent approach given the significance of the species and linkage of their habitats. The MARCO action plan contemplates work on both offshore canyons and migratory fish, but additional areas are important. Maryland should also evaluate its existing authorities in state waters to provide for habitat protections, sanctuaries, and protected areas in view of foreseeable impacts.

14) Upgrade water quality standards to ensure that they anticipate potential impacts on Maryland waters and aquatic life resources from future offshore wind and oil & gas activities. Maryland's water quality standards will apply to water quality certifications on federal activities such as the permitting of offshore facilities and transmission lines and pipelines. Maryland should review its water quality standards for marine and coastal waters and determine whether these are sufficient to project state interests. A number of the applicable criteria are not very detailed, and are expressed in terms of their effect on aquatic life.[437] Even under current standards intended to protect these waters for Aquatic Life and Wildlife,[438] Maryland reports that it has insufficient data to determine whether the standards are being met.

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[437] COMAR 26.08.02.03-3C. For example, "turbidity may not exceed levels detrimental to aquatic life."

[438] This is Maryland Designated Use II: "Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting. This use designation includes all applicable uses identified for Use I in: All tidally influenced waters of the Chesapeake Bay and tributaries, the Coastal Bays, and the Atlantic Ocean to the 3-mile boundary…"COMAR 26.08.02.02.

15) Review state regulations that might apply to discharges from algae facilities. Algal biomass is an area of increasing development and investment nationally. Maryland law currently would address this through discharge regulations. Nutrient limitations and water quality standards for the receiving waters would determine permitting; one issue is whether Maryland should limit or prohibit discharge of live algae. In addition, the state may wish to consider whether or to what extent exotic or genetically modified algae may be introduced into the state. Maryland may possibly need to determine whether such facilities are industrial facilities or aquaculture, and how they might be treated for critical area purposes.

Improve Energy Regulation to Facilitate Offshore Renewables

16) The Public Service Commission should be given sufficient authority to address foreseeable issues with offshore renewable energy siting and development review.

> **16a) The General Assembly could expand the definition of transmission siting for which Certificates of Public Convenience and Necessity are required to include submerged and underground lines.** The gap in PSC jurisdiction over transmission lines above 69kV that are not "overhead" creates unnecessary confusion. This will be exacerbated by future offshore transmission, which is likely to be submerged and buried and to connect only at substations to existing transmission lines. Although the PSC has a defined approach for approval of such lines, legislation could address the regulatory gap.
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> **16b) Maryland should not extend the 70 MW onshore wind exception from Certificate of Public Convenience and Necessity to offshore wind in state waters.**[439] The process has not substantially aided the permitting of onshore facilities, and has led to confusion with how to integrate other permits and approvals, including issues of integrating with local government review.
>
> **16c) If Maryland decides as a matter of public policy to support** or subsidize reliance on offshore wind as a preferred source of energy in preference to other forms, the state could consider (1) expanding the factors to be considered by the PSC in requiring or allowing electric companies to enter into long-term power purchase contracts, and (2) revising the state's renewable portfolio standards to increase the demand for and development of Maryland offshore wind.

17) Maryland should consider using its authority to facilitate siting and transmission where useful. The PPRP retains a role in site identification and acquisition that may be used if necessary to help coordinate or assemble relevant parcels to support renewable power within the state or involving "generator lead routes" which may be helpful where public goals are being met. The MES may be considered to help address

[439] PSC does not have jurisdiction over offshore wind generation facilities not located in Maryland, such as those in federal waters.

transmission issues, particularly for Bay-related renewable energy projects or community pilot projects intended to examine feasibility.

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