EXAMINATION OF NJ WIND ENERGY AREA (WEA) STUDIES AND DECISIONS

2004-2022

Abstract

This document is a chronological examination of the who, what, when and why regarding the designation of the Wind Energy Area off the Coast of New Jersey, now being developed as the Ocean Wind and Atlantic Shores Offshore Wind Turbine Projects.

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I first became aware of the impact of the Offshore Wind Energy Projects when reviewing the Visual Impact Assessments for Atlantic Shores South and Ocean Wind I developments on the BOEM's website. My initial reaction was that I could not imagine who made the decision to put a wind energy power plant off one of the most popular coastal tourist destinations in the US. I was certainly aware of the impending need to find alternatives to our dependence on fossil fuels and the goals of greenhouse gas reductions, but I was still stunned by how the decision on the Wind Energy Area (WEA) location would destroy the Jersey Shore experience. Someone somewhere decided that sacrificing our beach experience, tourist and fishing industries, and habitat for marine mammals was an acceptable solution. For this reason, I needed to know what alternatives were considered, why the Jersey Shore locations were identified as Wind Energy Areas, and who was involved in the decisions.

I found a section in Atlantic Shores Construction and Operation (COP) Document called, New Jersey Offshore Wind Leasing Program on page 1-12 in Volume 1 which provided a starting point for finding answers. As in most examinations of offshore wind topics, I found a complex story of numerous agencies, studies, rules, regulations, and committees at the state and federal level. The amount of information that was produced during the period of 2004 to 2022 was almost overwhelming to me who is not an energy industry expert nor is familiar with the government agency decision makers. Nonetheless, I continued to finish the tedious task of putting this information in some type of logical order.

I put the information I gathered - mostly listed in chronological order - in a table with three columns. The first two columns are used as a summary of the names or titles of the major actions or studies completed and a brief description of them based on the information in the Atlantic Shores' COP (i.e., the wind developer's lens). Please note that in addition to those mentioned in the COP, I found many other studies and decisions during my searches and added them based on my own judgement of their relevancy to my mission. The third column is also based on my judgement of what was important in the studies/decisions along with some of my criticisms and those of industry experts. There could be holes in my research as finding documents was not easy in the maze of activities related to offshore wind lease locations. I would advise reviewing the actual studies, Federal Register information, committee documents and official actions so that you can draw your own conclusions as to whether the process of identifying the wind energy areas was flawed and/or biased. In my opinion, the purpose of the studies and decisions was for the benefit of promoting offshore wind development and not to protect the marine and coastal inhabitants of New Jersey. I could have completed more analysis of the impact studies, for example, what were the common themes among them and are the statistics, citations and conclusions in these studies just copied and used by the Ocean Wind and Atlantic Shores wind developers for their own COPS and DEIS. For the sake of getting this report out to others, I stopped short of doing this. I am hopeful that having more people involved in the critical analysis of the process used to identify the Wind Energy Areas will strengthen our fight in opposing the industrialization of our ocean and help others in their own studies on the impacts of offshore wind energy development.

Suzanne Moore

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EVCEDDTS EDOM THE STUDIES ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
2004 New Jersey	• The NJ Bureau of Public	New Jersey Offshore Wind Energy: Feasibility Study, Final Version (With NJ DEP Comments) (rutgers.edu
Offshore Wind	Utilities sponsored the	
Energy: Feasibility	2004 New Jersey	Report authored by Atlantic Renewable Energy Corporation (AREC); a developer of wind
Study	Offshore Wind Energy:	powered generation projects and AWS Scientific. Inc. (AWS) a renewable energy engineering and
	Feasibility Study	advisory services firm
	• Purpose : to investigate	The Wind Energy Area was defined in the Study as follows: "The focus area of this study stretches
	the feasibility of utility-	approximately from Sandy Hook to Egg Island Point in the Delaware Bay and extends out to a water
	scale wind energy	depth of 100 feet, the maximum viable depth for purposes of this report. The study area encompasses
	development in the	2.465 square
	waters offshore of New	nautical miles and <u>Top Trends in Offshore Wind Department of Energy</u> *
	Jersey.	extends up to 20
		miles from shore."
	• This desktop	A Rest of the World Capacity-Weighted Rolling 5 War
	investigation	"This depth is the 60 Asian Capacity-Weighted
	characterized the	assumed practical
	geophysical,	limit of offshore
	environmental,	wind turbine
	regulatory, and	foundation designs
	commercial siting	within the next five
	considerations that	vears or so; to date.
	would need to be	all offshore wind
	addressed in order to	projects have been
	develop New Jersey's	installed in waters
	offshore wind industry.	shallower than 65
		ft." (Page 1. 2005 2010 2015 2020 2025
	• Results : Of the 2,465	Objective and Scope) Commercial Operation Date
	square nautical miles	
	(nm2) studied (from	*chart from: Offshore Global offshore wind project water depth trend to 2026. Figure 23 from the Offshore Wind Market Report: 2021 Edition.
	Sandy Hook to Egg Island	Wind Market Report: 021
	Point and out to water	



FEDERAL/STATE			
TASK/ACTION/	0	DESCRIPTION OF ACTIVITY	EXCEDDTS EDOM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)		(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTARY
2004 State of New			Link to Final 2006 Report:
Jersey Blue Ribbon	٠	By Executive Order, the	Blue Ribbon Panel on Development of Wind Turbine Facilities in Coastal Waters Final Report.pdf (nj.gov)
Panel on		Governor of New Jersey	
Development of		authorized a State of	Public meeting dates and locations: <u>blue-ribbon-past-meetings.pdf (nj.gov)</u>
Offshore Wind		New Jersey Blue Ribbon	Individuals providing testimony (spoken and written) at public meetings: page 28-33 of Final Report
Turbine Facilities		Panel on Development of	
		Offshore Wind Turbine	Conclusions in Report
2006 The Blue		Facilities	Pg V: "While this Panel has identified an absence of information regarding the various possible impacts
Ribbon Panel's final			of offshore wind turbines, it believes the potential of the technology as a renewable energy source
report, submitted to	٠	Per the Executive Order,	should be explored further. Following collection of baseline data, this should be done through a carefully
the Governor		"The State of New Jersey	monitored and tightly controlled test project."
		has Federal Consistency	
		review authority	Pg XI: "Planning for a test project must proceed with caution; its development must be preceded,
		pursuant to Section 307	accompanied, and followed by collection and analysis of scientifically valid data and monitoring of
		of the Coastal Zone	environmental and economic impacts of the project. These data should be used to determine if future
		Management Act, 16	development is necessary and/or appropriate. No further offshore wind development should proceed
		U.S.C. 1451 et seq., for	until these data have been studied for consistency with the guiding principles developed by this Panel
		activities occurring in its	and the coastal policies of this state."
		coastal zone and in	
		Federal waters where	Statement under Recommendation 1 about Programmatic EIS Preparation (see page 10,11 of Final
		there is a reasonably	Report):
		foreseeable effect on the	
		uses and resources of	"MMS will also prepare a programmatic Environmental Impact Statement (EIS) to comply with the
		New Jersey's coastal	National Environmental Policy Act. The programmatic EIS will focus on generic impacts from each
		zone."	industry sector and will identify key issues that subsequent site-specific assessments should consider,
			facilitating future preparation of site-specific environmental compliance documents. MMS expects to
	٠	Purpose: to identify and	adopt such regulations and complete the programmatic EIS in late 2007, and is not planning to accept
		weigh the costs and	new applications until the regulations and EIS are finished. Additionally, MMS will involve stakeholders
		benefits of developing	throughout development of the program and regulation, and coordination is planned with state
		offshore wind turbine	governors, local government executives, and other federal agencies concerning activities that may affect
		facilities for New Jersey.	them"

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS	FROM THE STUDIES/ACTIONS & COMMENTARY
		Risk Assessment /Guiding	Principles in NJ Blue Ribbon Panel Final Report:
	 The Blue Ribbon Panel's final report was submitted to the 	Guidi	Table 5 ng Principles for Development of Renewable Technologies in New Jersey New Jersey can and must address its growing energy crisis through the application of energy efficiency programs and development of renewable energy technologies
	 Governor in 2006. Recommendation: New Jersey conduct scientific baseline studies to collect 	Energy	New Jersey will suffer increasingly high energy costs and the effects of upwind pollution if it looks to out-of-state sources to meet its growing energy demand and so must be a leader in the development of renewable technologies. New Jersey must continue to take bold action on several fronts including enactment of conservation/efficiency measures and development of technologies that, • Provide generation capacity near load centers; • Reduce transmission congestion, and • Alleviate upward pressure on energy prices.
	data about the existence, location, and nature of New Jersey's offshore	Environment	Development of renewable technologies, including offshore wind turbine facilities, must not cause unacceptable adverse impact to wildlife or natural resources. Development of renewable technologies, including offshore wind turbine facilities, must not cause unacceptable interference with critical avian or marine mammal lifecycle habits, or cause unacceptable loss of critical habitats.
	FR 22130).	Tourism/Commer Ocean Uses	Development of renewable technologies, including offshore wind turbine facilities, must not cause unacceptable economic impact, including unacceptable impact to tourism and related industries, or to the commercial and recreational fisheries. Development of renewable technologies, including offshore wind turbine facilities, must not create unacceptable aesthetic impact, particularly in the viewsheds of state or federal parks and natural areas.
		Other	Development of renewable technologies, including offshore wind turbine facilities, must not have unacceptable environmental justice implications. To ensure the interests of New Jersey are protected, development of renewable technologies such as wind power in waters under federal jurisdiction must proceed as a private/public partnership among developers, state and federal authorities.
		Befa	Table 7 Areas Requiring Risk Assessment Modeling and Monitoring bre, During, and After Construction of an Offshore Wind Project
		Energy	Amount of electricity generated. Impact on transmission congestion and electricity costs to residents and businesses. Requirements for decommissioning, abandonment, and repair of turbines.
		Environment	Impact on wildlife and natural resources. Impact on and disturbance of benthic habitat. Environmental Justice Implications.
		Economic	Impact on tourism and related industries. Impact on ocean-dependent industries (i.e., commercial and recreational fishing).

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
		Minority Report Findings Blue Ribbon Panel on Development of Wind Turbine Facilities in Coastal Waters Final Report.pdf (nj.gov) Pg 19-24 Tim Dillingham, ED of the American Littoral Society and member of the Task Force, prepared a Minority Report criticizing the Task Force's recommendations, stating "critical evaluation indicates that wind power may not in fact live up to the claims made by its advocates, that its impact on the coastal environment may be far from benign, and that other approaches may be available, though less examined, that secure similar benefits to those promised by offshore wind power, without requiring construction of new industrial structures in the ocean."
Energy Policy Act of 2005	Purpose: To amend the Outer Continental Shelf (OCS) Lands Act authorizing the Department of Interior to grant leases, easements, and rights of way (ROWS) on the OCS for energy activities other than oil and gas. Information not referenced in COP Section 1.3.1	Link to Summary of the Act on EPA Website: Summary of the Energy Policy Act US EPA Link to the Act: BILLS-109hr6enr.pdf (govinfo.gov) Impact of Energy Policy Act of 2005 on Offshore Renewable Energy Development: The Act amended the OCS Lands Act by adding subsection 8(p)(1)(c), which authorized the Secretary of the Interior to grant leases, easements of rights of way (ROWS) on the Outer Continental Shelf (OCS) for activities that are not otherwise authorized by law and that produce or support production, transportation, or transmission of energy from sources other than oil or gas. The Act required the Director of BOEMRE to issue regulations to carry out the new authority pertaining to renewable energy on the OCS. Minerals Management Services issued an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register on 12/30/05 to seek comments on the development of a regulatory program. E5-8119.pdf (govinfo.gov)

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1) Interim Policy (IP) and Request for Information and Nominations for IP Leases 11/6/2007	DESCRIPTION OF ACTIVITY (2) Purpose: Policy created to allow limited offshore leasing before finalizing the Renewable Energy and Alternative Uses (REAU) rules. Information not referenced in COP Section 1.3.1	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY Link to Interim Policy: Rules Development And Interim Policy Bureau of Ocean Energy Management (boem.gov) BOEM developed this policy for the development of OCS energy projects prior to finalizing the Renewable Energy and Alternative Uses (REAU) rulemaking. The IP allowed for limited leasing, data collection and technology testing activities in the OCS. The IP and the Request for Information and Nominations of Areas for Leases Authorizing Alternative Energy Resource Assessment and Technology Testing Activities Pursuant to Subsection 8(p) of the Outer Continental Shelf Lands Act, were both announced in the Federal Register 11/6/07: E7-21793.pdf (govinfo.gov)
		BOEMRE in November 2009 issued noncompetitive IP leases (after no competitive interest) in six areas on the OCS ranging from 8-21 miles offshore of the coast of New Jersey to three developers, Deepwater Wind LLC, Blue Water Wind NJ Energy LLC, and Fishermen's Energy of New Jersey.
Guide to OCS Alternative Energy Final Programmatic Environmental Impact Statement (PEIS)	The PEIS was prepared by Mineral Management Service (DOI) assisted by Argonne National Laboratory.	BOEM'S (at the time, Minerals Management Service) Guide to the OCS Alternative Energy Final Programmatic Environmental Impact Statement (PEIS) 11/6/2007 Program for Renewable Energy and Alternate Use of Existing Structures on the Outer Continental Shelf (OCS) Notice of Intent (NOI) to prepare programmatic environmental impact statement (PEIS) and scoping meetings Federal Register 5/5/2006: <u>E6-6924.pdf (govinfo.gov)</u>
5/5/2006- 11/6/2007	The PEIS evaluates the generic impacts from potential activities occurring in the environment. Regions of study were Atlantic, Gulf of Mexico, and Pacific	Final EIS Federal Register Notice of Availability 11/6/2007: <u>E7-21792.pdf (govinfo.gov)</u> Link to Report: <u>Guide To The OCS Alternative Energy Final Programmatic Environmental Impact</u> <u>Statement (EIS) Bureau of Ocean Energy Management (boem.gov)</u> Prepared by Mineral Management Service assisted by Argonne National Laboratory.

DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
The PEIS was not referenced in COP Section 1.3.1	This Programmatic EIS takes a first look at the potential environmental, social, and economic impacts from and mitigation measures for the activities along the entire coastline of the US that could be initiated in the next five to seven years. Regions of study were Atlantic, Gulf of Mexico, and Pacific.
	1.3.2 Scope of This Programmatic EIS
	"This EIS is programmatic and, therefore, evaluates the generic impacts from potential activities occurring in the environment. Specific examinations of localized impacts are deferred to subsequent analyses. This programmatic EIS informs the MMS generally about the types and extent of environmental effects that could result from future authorizations. Any future proposal for an alternative energy project on the Outer Continental Shelf (OCS) under this new authority will be subject to its own project-specific environmental analyses under NEPA. This EIS will also serve to identify the potential impact-producing factors and the key resources that could be impacted."
	Document defines areas of interest: "This EIS is focused on alternative energy technologies and areas on the OCS about which industry has expressed a potential interest and ability to develop or evaluate from 2007–2014 for wind and wave technologies being assessed within the time frame of this EIS, development is expected to occur near to shore with maximum water depths of 100 meters (m) (328 feet [ft]). With the exception of ocean current technology as discussed below, the analysis in this EIS is, therefore, limited to the area defined by this water depth for these technologies."
	Public Comments on the Draft EIS: <u>Alt_Energy_FPEIS_AppendixB.pdf (boem.gov)</u> Example of Criticism of Draft Programmatic Environmental Impact Statement related to Offshore Wind: by Clean Ocean Action 5/21/2007 <u>Microsoft Word - OCS_Comments_and_Responses-Part11.doc (boem.gov)</u> Inadequate information and scientific rational or conflicting information in determining environmental impacts regarding: • electromagnetic Fields from submarine cables • human activity/vessel traffic
	DESCRIPTION OF ACTIVITY (2) The PEIS was not referenced in COP Section 1.3.1

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERDIS EDOM THE STUDIES ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTART
		 options for energy efficiency, conservation methods, onshore renewable energy technologies cumulative environmental and ecological impacts of multiple energy projects on the OCS high voltage and extra high voltage onshore transmission lines exclusion of National Academy of Sciences Study which will provide information on offshore energy potential and recommendations on statutory and regulatory mechanisms for developing these resources. Offshore wind areas for Atlantic Coast identified in the report: on maps:
		Alt Energy FPEIS Chapter4.pdf (boem.gov)
		rrr Energy in ED engreensport



FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCEDDTS EDOM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTART
Assessing the Costs	Scope: "is not an analysis of	Accompanying Report on Programmatic FEIS (Final Environmental Impact Study) Webpage
& Benefits of	whether to use the OCS for	Assessing the Costs and Benefits of Electricity Generation Using Alternative Energy Resources on the
Electricity	alternative energy projects,	Outer Continental Shelf : Report compares Wind, Wave, Ocean Current Energy and analyzes benefit/cost
Generation Using	nor an analysis of aggregate	of Fossil Fuel, Nuclear, Offshore Wind, Wave, and Ocean Current Resources, Onshore Wind and
Alternative Energy	benefits and costs."	Conventional Hydropower including detailed calculation of CO2 emissions economic impact.
Resources on the		Final Report Date on Document: March 2007 <u>16 April 2004 (boem.gov)</u>
OCS March 2007	Information not referenced in	
	the COP 1.3.1	
		Ocean Wind Power Ecological Baseline Studies (OWPEBS) Final Report July 2010
2008-09 , 2010	New Jersey Department	NJDEP Offshore Wind Resources & Materials
Ocean/Wind Power	of Environmental	The final report included ecological and environmental characteristics of the "study area", the
Ecological Baseline	Protection	distribution and migration patterns of avian, marine mammals and fish species in the study area along
Studies (OWPEBS)	(NJDEP) contracted Geo-	with potential impacts to each during each phase (survey, construction, operation, and
offshore New Jersey.	Marine Inc. to conduct	decommissioning) of offshore wind development.
	the OWPEBS offshore NJ	
	including 24 months of	Project Objectives: Address Natural Resource portion of Blue Ribbon Panel Recommendation No. 4:
	field studies to address	"Baseline data should be collected regarding the distribution, abundance, and migratory patterns of
	data gaps on birds, sea	avian, species, fish, marine mammals and turtles in the offshore area where development may be
	turtles, marine mammals,	feasible." Ocean Wind Power Ecological Baseline Studies Meeting Agenda 6.18.2010 (nj.gov)
	and other natural	
	resources. Desktop	Bid Document (Solicitation) for Studies : <u>BASELINE STUDIES (nj.gov)</u>
	reviews of fish and	According to the Solicitation for Research Proposals: Ocean/Wind Power Ecological Baseline Studies,
	fisheries resources in the	the study area was predefined by the NJ Department of Environmental Protection. (April 19, 2007)
	1360 nmsq2 study were	
	also conducted	"Study Area" Defined in the 2007 Solicitation for Consultant RFP:
	(GMI2020)	Study Area
		The contractor shall perform work within the confines of the Study Area. The Study Area (Figure 1) is defined as the waters offshore of the coast of New Jersey starting from the shoreline
	Results: Identification of	and continuing out to 20 nautical miles offshore (approximate 100-foot depth contour). This zone will be surveyed from the area adjacent to Seaside Park (approximate latitude/longitude 39° 55'
	suitable areas for siting	56" N, 74° 04' 10" W) south to Stone Harbor (approximate latitude/longitude 39° 01' 58" N, 74° 46' 11" W) and extending 20 nautical miles perpendicular to the shoreline. This area is
	future wind energy	approximately 1,360 square nautical miles (i.e., 68 x 20 nautical miles) in size and excludes Delaware Bay and areas off the New Jersey coast with known major constraints for offshore
	facilities offshore of New	wind power (e.g., air-restricted zones, significant water habitat, shipping lanes).

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERDES FROM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERTISTICON THE STODIES/ACTIONS & COMMENTANT
	Jersey and delineation of the New Jersey Call Area identified by BOEM in the "Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore New Jersey – Call for Information and Nominations" (the "Call") published on April 20, 2011 (see 76 FR 22130).	Meetings held with Interested Party Group (IPG): Defined as organizations that have an interest in offshore power (e.g., environmental, natural resource or development standpoint). DEP outreach – provided updates on the project's progress and results. Dates of meetings : 11/9/07, 10/30/2008, 3/5/2009, 6/18/10 (Draft Final Report Presentation) <u>Ocean Wind Power Ecological Baseline</u> <u>Studies Interested Party Group 10.30.2008 GMI (nj.gov)</u> "The Call" - Federal Register 76 FR 22130 : 2011-9545.pdf (govinfo.gov)
Renewable Energy and Alternative Uses of Existing Facilities on the Outer Continental Shelf (OCS) 4/29/09	Purpose: Issue Final Renewable Energy Regulations to establish a program to grant leases, easements, and rights of way (ROW) for renewable energy project activities on the OCS, use of existing facilities for renewables, sharing revenues generated by this program among coastal states, ensure orderly, safe, and environmentally responsible development of renewable energy sources on the OCS. Regulations not referenced in	 Marine Management Service (MMS), Interior Alternative Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf Action: Proposed Rule; notice of availability of the draft environmental assessment in the Federal Register 7/9/2008 link: E8-14911.pdf (govinfo.gov) <i>Renewable Energy and Alternative Uses of Existing Facilities on the Outer Continental Shelf; Final Rule</i> Action: Notice of Availability for the Final Environmental Assessment in the Federal Register 4/29/2009, pg. 19638 – 19871 link: Final Renewable Energy Rule (boem.gov) Link for Final EA in Federal Register The Final EA is available on the MMS Web site at: http://www.mms.gov/ offshore/AlternativeEnergy/ RegulatoryInformation.htm. (link does not work) Link to: Issuance of Leases for Wind Resource for Data Collection on the Outer Continental Shelf Offshore Delaware and New Jersey Environmental Assessment June 2009, Link to Document: 1 (boem.gov) MMS announced its publication of the final regulations to establish a program to grant leases, easements, and right-of-way (ROW) for renewable energy project activities on the OCS. Also announced

FEDERAL/STATE			
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/AC	TIONS & COMMENTARY
ACTIVITY (1)	(2)		
		<text></text>	Programmatic Environmental Impact Statement (PEIS) for Alternative Energy Development and Production and Alternative Use of Facilities on the OCS, November 2007 In July of 2009, The Minerals Management Service, Office of Offshore Alternative Energy Program, finished Guidelines for the Minerals Management Services Renewable Energy Framework . Link to Document: <u>Microsoft Word - REn</u> <u>Guidebook 03 August 2009 3 .doc</u> (boem.gov) Guidance was jointly prepared by Minerals Management Service and Federal Energy Regulatory Commission to clarify the implementation of the final Renewable Energy and Alternative Uses of Existing Facilities regulations. The Map, OCS Official Protraction Diagram, was included in the guidance document.

FEDERAL/STATE			
TASK/ACTION/	1	DESCRIPTION OF ACTIVITY	EXCEDDTS EDOM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)		(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTART
2011 "Commercial	•	The New Jersey Call Area	New Jersey Renewable Energy Task Force
Leasing for Wind		was delineated through	Renewable Energy Task Force Meetings Bureau of Ocean Energy Management (boem.gov)
Power Offshore New		consultation with the	The NJ task force was called the Minerals Management Service (MMS) New Jersey Task Force. The New
Jersey on the Outer		New Jersey Renewable	Jersey Project Coordinator of the Office of Offshore Alternative Energy Programs headed the task force.
Continental Shelf-		Energy Task Force using	Task Force Meeting Dates: 11/24/09, 5/12/10, 11/19/10, 12/18/12, 1/28/14, 4/22/14, 5/19/16, 12/4/17
Call for Information		the 1,360 nm2 OWPEBS	
and Nominations"		study area as a starting	Framework for Renewable Energy for Task Force
(the "Call")		point.	President Obama, Secretary Salazar Announce Framework for Renewable Energy Development on the
published on April			U.S. Outer Continental Shelf
20, 2011 (see 76 FR	•	Purpose: to determine if	https://www.boem.gov/sites/default/files/boem-newsroom/Press-Releases/2009/press0422.pdf
22130).		competitive interest	
		existed for the	"Section 285.102 of the 2009 Energy Renewable Framework states that Marine Management Service
		development of offshore	(MMS) will provide for coordination and consultation with the Governor of any State or the executive of
		wind generation facilities	any local government or Indian tribe that may be affected by a lease, easement, or ROW"
		offshore New Jersey	
		within the New Jersey	Roster of the New Jersey Renewable Energy Task Force Task Force Membership List (boem.gov)
		Call Area.	Roster: 33 Federal Elected and Agency Officials, 26 State Elected and Agency Officials, 52 Mayors
			Typical Meeting attendance: lists available for Meeting 1 and Meeting 3 – 29 Federal & State Agency
	•	Areas of the OWPEBS	Officials, 2 Indian Tribe Officials, 1 local Commissioner of Economic Development, 3 Offshore Wind
		study area excluded from	Development Company Observers
		the Call Area: (see 76 FR	
		22130): • "no build	Task Force Parameters
		areas" such as shipping	"The Task Force membership cannot alter the Regulatory Framework or the established leasing
		lanes, traffic separation	processes, but it can provide input on how these processes are implemented. MMS will consider Task
		schemes, pipelines and	Force member input as it makes its renewable energy leasing decision." Microsoft PowerPoint - NJ Task
		cables, artificial reefs, and	Force Meeting_111809 (boem.gov)
		shipwrecks; • areas of	
		high avian density	Discussion of EIS vs. EA Microsoft PowerPoint - NJ_Taskforce_EnvProcess_Morin_112409_Revised
		(particularly in shoals and	(boem.gov)
		within 7 nm of the New	
		Jersey coast); • areas of	

TASK/ACTION/ ACTIVITY (1) DESCRIPTION OF ACTIVITY (2) EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY ACTIVITY (1) high marine mammal and sea turtle density; and • fishing hotspots for recreational and commercial fishermen. Studies (in addition to OWPEBS) Presented at Task Force Meetings National Renewable Energy Laboratory (NREL) prepared 2 studies for the Task Force: Hired by BOEM for studies, NREL is a national laboratory of the US Dept of Energy, Office of Energy Efficiency and Renewable Energy, operated by the Alliance for Sustainable Energy, LLC, co-managed and governed by Battelle and MRIGlobal. • Result: BOEM received 11 commercial indications of interest to obtain a offshore wind facility and numerous comments from the public. In addition, the Call gathered comments from interested and affected parties regarding site conditions, resources, or other uses within the area. Studies Presented at Task Force Meetings National Renewable Energy, Operated by the Alliance for Study 1.): Assessment of Offshore Wind Energy Resources for the United States, June 2010 https://www.nrel.gov/docs/fy10osti/45889.pdf NREL Studies Presented at Task Force Meetings 1. Proposed Methodology for New Jersey Offshore Leasing Zones Delineation 12/18/12 Slide 1 (boem.gov) a. The focus was to help delineate leasing zones within the WEAs by focusing on balance wind resource, assessing buffer zones and maximizing energy potential. (slide 4) b. Objective: Create 3-5 development zones within the BOEM specified New Jersey Wind Energy Area (WEA) (slide 11) c. Final Presentation to New Jersey Renewable Energy Task Force on Leasing Area Delineation Studies 1/28/13 PowerPoint Presentation (boem.gov)
ACTIVITY (1) (2) Extension for the construction of the US for the Construction of the US performance of the US pere
high marine mammal and sea turtle density; and • fishing hotspots for recreational and commercial fishermen.Studies (in addition to OWPEBS) Presented at Task Force Meetings National Renewable Energy Laboratory (NREL) prepared 2 studies for the Task Force: Hired by BOEM for studies, NREL is a national laboratory of the US Dept of Energy, Office of Energy Efficiency and Renewable Energy, operated by the Alliance for Sustainable Energy, LLC, co-managed and governed by Battelle and MRIGlobal.• Result: BOEM received 11 commercial indications of interest to obtain a commercial lease for an offshore wind facility and numerous comments from the public. In addition, the Call gathered comments form interested and affected parties regarding site conditions, resources, or other uses within the area.Studies by NREL Previous to Task Force Meetings Studies by NREL Previous to Task Force (Slide 9, see link below for Study 1.): Assessment of Offshore Wind Energy Resources for the United States, June 2010 https://www.nrel.gov/docs/fy10osti/45889.pdf• REL Studies Presented at Task Force Meetings 1.NREL Studies Presented at Task Force Meetings 1.• NREL Studies Presented at Task Force Meetings 1.NREL Studies Presented at Task Force Meetings 1.• Objective: Create 3-5 development zones within the WEAs by focusing on balance wind resource, assessing buffer zones and maximizing energy potential. (slide 4) b.• Objective: Create 3-5 development zones within the BOEM specified New Jersey Wind Energy Area (WEA) (slide 11)2.Final Presentation to New Jersey Renewable Energy Task Force on Leasing Area Delineation Studies 1/28/13 PowerPoint Presentation (boem.gov) a.• Topics included "NJ "Call" summary, physical description of NJ
 wake loss and energy analysis." (Slide 2) b. "Focus was on wind resource, energy potential, bathymetry, and wake effects and capacity factor after wake losses with a goal to produce development zones with similar value." (Slide 1, 8) c. All calculations assume a 10D X 12D (10D = 1260 meters) spacing and a 5 MW wind turbine with a 126m diameter rotor. (Actual turbine generator specifications as of 2022: Ocean Wind I project is using 12 MW WTG and Atlantic Shores project is using 15 MW WTG)



FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	Dutane Coastal Ocean Observation Lab (for NUDDU) measured 4 study
		Rutgers Coastal Ocean Observation Lab (for NJBPU) prepared 1 study:
		1. An Advanced Atmosphere/Ocean Assessment Program. Reducing the Risks Associated with NJ Offshore Wind Energy Development (as defined by the NI EMP. NI Offshore Wind Energy
		Economic Development Act, and NJBPU's Offshore Wind Renewable Energy Rules) 4/22/14
		Rutgers.pdf (boem.gov)
		Topics: New Ocean Data, Hi-Res Weather Model, Spatial Validation Data, Wind Power Stats
		• Study based on 6 MW Wind Turbine Generator (WTG) (Pg,36,37). (Ocean Wind I project is
		using 12 MW WTG and Atlantic Shores project is using 15 MW WTG)
		OSW Energy Dovelonment Domain and WTC Size
		OSW Energy Development Domain and WTG Size
		New General Ge
		North Zone
		Image:



FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
		BOEMRE published its Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore New Jersey – Call for Information and Nominations. 4/20/11 76 FR 22130 2011-9545.pdf (govinfo.gov)
		"BOEMRE invites the submission of nominations for one or more commercial leases for the construction of a wind energy project(s) in the OCS offshore New Jersey. BOEMRE will use the response to this Call for Information and Nominations (Call) to gauge specific interest in acquiring commercial win lease(s) in some or all of the area." Reference to Wind Energy Area in the "Call":
		A detailed description, including block numbers, of the Wind Energy Area is on page 22134-22317 of 76 FR 22130
		"The area under consideration for commercial leasing is located off the coast of New Jersey, beginning approximately 7 nautical miles (nmi) from the shore, extending roughly 23 nmi seaward to the approximate 100 ft depth contour, and extending 45 nmi parallel to the Federal/State boundary between Avalon and Barnegat Light. This area is approximately 418 square nmi and contains approximately 43 whole OCS blocks and 34 partial OCS blocks. This area was delineated in consultation with the BOEMRE/New Jersey Renewable Energy Task Force"
		"Map of the Call Area A map of the area and a table of the Call boundary coordinates in X, Y (eastings, northings) UTM Zone 18, NAD83 Datum and geographic X, Y (longitude, latitude), NAD83 Datum can be found at the following URL: http:// www.boemre.gov/offshore/ RenewableEnergy/ stateactivities.htm#New Jersey. (Link does not work)"
		"The New Jersey WEA and Call was developed using the boundary of New Jersey's Ocean/Wind Power Ecological Baseline Studies (OWPEBS) as a base. Areas were removed based on features ranging from physical obstructions and usages to the presence and density of biological resources including avian populations and aquatic habitat. " (Specific areas removed are listed on page 22136 of 76 FR 22130.)
		Other areas included in the WEA discussion were Traffic Separation Scheme and Department of Defense Activities. (page 22136 of 76 FR 22130)

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERDIS FROM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS TROWT THE STODIES/ACTIONS & COMMENTARY
2012 Environmental	• In February 2012, BOEM	FR-2011-02-09.pdf (govinfo.gov) P139/391
Assessment (EA)	published an	"On February 9, 2011, BOEMRE issued a Notice of Intent (NOI) to prepare an EA for Mid Atlantic WEAs
	Environmental	(76 FR 7226). The NOI requested public input to identify the important environmental issues associated
	Assessment (EA).	with leasing and site assessment within the identified WEAs, and alternatives to be considered in the
		EA.
2012 Finding of No	• Result: Issued a Finding	
Significant Impact	of No Significant Impact	The Federal Register announcement states that the WEAs were identified by BOEMRE with input
(FONSI) for	(FONSI) for commercial	from State Renewable Energy Task Forces and other Federal Agencies WEAs may have been adjusted
commercial wind	wind lease issuance and	based on input during THE 2010 CALL. For New Jersey, the WEA is identified as:
lease issuance and	site assessment activities	
site assessment	on the Atlantic OCS	"The proposed area offshore New Jersey begins 7 nautical miles from the shore and extends roughly 23
activities on the	offshore New Jersey,	nautical miles seaward (or the approximate 100 ft depth contour) and extends 72 nautical miles along
Atlantic OCS	Delaware, Maryland, and	the Federal/state boundary from Seaside Park south to Hereford Inlet. The entire area is approximately
offshore New Jersey,	Virginia (see 77 FR 5560).	418 square nautical miles and contains approximately 43 whole OCS blocks and 34 partial blocks."
Delaware, Maryland,	In December 2012	
and Virginia	Result Revised: As a	According to the NOI, a Regional Environmental Assessment (REA) would be completed based on
	result of subsequent	environmental and social economic analysis in the Programmatic EIS
	discussions with the U.S.	https://www.boem.gov/renewable-energy/guide-ocs-alternative-energy-final-programmatic-
	Coast Guard (USCG), the	environmental-impact-statement-eis (E7-21792.pdf (govinfo.gov)) and Interim Policy EA and other
	New Jersey Renewable	public information. The REA will include the environmental consequences of lease issuance scenario
	Energy Task Force, and	and site assessment activities during Construction and Operation Proposals including site
	maritime stakeholders	characterization and site assessment.
	in, BOEM decided to	
	remove certain OCS Lease	BOEMRE determined environmental impact from issuing leases and conducting site characterization and
	Blocks from the area	assessment as follows:
	offshore New Jersey	1) IF MAJOR IMPACT: Environmental Impact Statement will be required. (action significantly affecting
	studied in the EA to	the quality of the human environment (42 U.S.C. 4332 (c) and 76 FR 22133)
	alleviate navigational	2) IF NOT MAJOR IMPACT: Finding of No Major Impact (FONSI) will be issued.
	safety concerns resulting	
	from vessel transits out	Public Engagement: "Federal, State, and local government agencies, Tribal governments, and other
		interested parties may assist BOEMRE in determining the important issues and any additional

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERDIS FROM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERTISTICON THE STODIES/ACTIONS & COMMENTANT
	of New York Harbor (see 79 FR 42361). • This revised area constitutes the NJWEA. The NJWEA was divided	alternatives to be analyzed in the REA. Input is also requested on measures (e.g., limitations on activities based on technology, distance from shore, or timing) that would mitigate impacts to environmental resources and socioeconomic conditions that could result from leasing, site characterization, and site assessment in and around the WEAs."
	Into two leasing areas:	Alternatives considered in the EA
	Lease Area OCS-A 0498	A) Sull Lessing of the M/SAS
	and Lease Areas OCS-A	A) Full Leasing of the WEAS
	0499.	B) Removal of Anchorage Ground Offshore DE
		C) Removal of Category & Aleas Offshole Walyland
		E) Removal of Inclement Weather Diversion Area Offshore
		E) No Action
		According to BOEM, these public comments were considered in drafting the alternatives and assessing the reasonably foreseeable environmental impacts associated with each alternative. Comments received in response to the NOI can be viewed at http://www.regulations.gov, by searching for Docket ID BOEM–2010–0077."
		Notice of the Availability (NOA) of an Environmental Assessment (EA) and a Finding of No Significant Impact: <u>2012-2494.pdf (govinfo.gov)</u> Federal Register 2/3/2012 Vol. 77, No. 23
		Final Report : Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia Final Environmental Assessment, January 2012 OCS EIS/EA BOEM 2012-003
		"As a result of its analysis in the final EA, BOEM issued a Finding of No Significant Impact (FONSI) . The FONSI concluded that the environmental impacts associated with the preferred alternative would not

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EVCEDDTS EDONA THE STUDIES ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EACERPTS PROIVETHE STUDIES/ACTIONS & CONTINIENTART
		significantly impact the environment; therefore, the preparation of an environmental impact statement (EIS) is not required."
		Conclusion
		I have thoroughly considered the prominent issues and concerns identified in the EA and by the public and cooperating and consulting agencies in their comments, as well as the evaluation of the potential effects of the proposed action and alternatives in the attached EA. It is my determination that there are no substantial questions regarding the reasonably foreseeable impacts of the proposed action or alternatives, and that no reasonably foreseeable significant impacts are expected to occur as the result of the preferred alternative or any of the alternatives contemplated in the EA. It is therefore my determination that implementing the proposed action or any of the alternatives would not constitute a major federal action significantly affecting the quality of the human environment under Section 102(2)(C) of the National Environmental Policy Act of 1969. As a result, an EIS is not required, and I am issuing this finding of no significant impact.
		"BOEM in consultation with other Federal Agencies and State Renewable Energy Task Forces identified
		The Wind Energy Area for NJ" as follows:
		"New Jersey: The proposed area offshore New Jersey begins 7 nautical miles from the shore and extends roughly 23 nautical miles seaward (or the approximate 100 ft depth contour) and extends 72 nautical miles along the Federal/state boundary from Seaside Park south to Hereford Inlet. The entire area is approximately 418 square nautical miles and contains approximately 43 whole OCS blocks and 34 partial blocks"
		"New Jersey WEA: The area offshore New Jersey considered for leasing is approximately 43 whole OCS blocks and 26 partial blocks. The area begins 7 nm from the shore and extends roughly 23 nm seaward (or the approximate 100 ft depth contour) and extends 53 nm along the Federal/state boundary from Seaside Park south to Hereford Inlet. The entire area is approximately 418 square nm (354,408 acres; 143,424 hectares)"

FEDERAL/STATE TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
	(-)	Environmental Assessment: Discussion of Economy and Tourism Impacts
		<i>Final</i> Environment <i>Impact Study was completed before studies on Economy and Tourism were completed. (See section on Economy and Tourism below)</i>
		Actual Information included in Final EA regarding tourism and recreation: (PG 132 and tables on PG 134, 135)
		4.1.3.2 Recreational Resources (Pg. 132) 4.1.3.2.1 Description of the Affected Environment "The coastal beaches, barrier islands, estuarine bays and sounds, river deltas, and tidal marshes of New Jersey, Delaware, Maryland and Virginia are used for recreational activity by residents of the local areas and tourists. Beaches are a major recreational resource that attracts tourists and residents to the coastal counties for fishing, swimming, shelling, beachcombing, camping, picnicking, bird watching, and other activities. The scenic and aesthetic values of beaches play an important role in attracting visitors. Recreation and tourism provide employment and wages in the coastal counties. The coastal waters of these areas would be transited by vessels associated with Alternative A. Recreational fishing is discussed in Section 4.1.3.6 of this EA. "
		New Jersey "The coastal counties of New Jersey are host to substantial recreation, particularly in connection with marine fishing and beach-related activities. The shorefronts along these counties in New Jersey contain a diversity of natural and developed landscapes and seascapes. Table 4-12 presents employment in tourism-related industries in 2004 (National Ocean Economics Program, 2008). This source defines tourism related employment and wages as those from the following travel-related industries: amusement and recreation services, boat dealers, eating and drinking places, hotels and lodging places, marinas, recreational vehicle parks and campsites, scenic water tours, sporting goods retailers, zoos, and aquaria. The USEPA reports 263 beaches in the 5 coastal counties (Atlantic, Cape May, Middlesex, Monmouth, and Ocean) in New Jersey, which is summarized in Table 4-11 (USEPA, 2008b)."
		4.1.3.2.2 Impact Analysis of Alternative A

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS TROWT THE STODIES/ACTIONS & COMMENTART
		Routine Activities "Impacts on recreational resources are not anticipated in connection with Alternative A. As discussed in Section 4.1.3.5, existing ports or industrial areas are expected to be used by vessels associated with Alternative A. Expansion of these existing facilities is not anticipated. Due to the distance to shore of the WEAs, it is estimated that most of the anticipated meteorological towers would not be visible from shore (see Section 3.1.3, Visual Aesthetics – note, this is missing from the EA Report). The few meteorological towers located nearer to shore would be virtually invisible from shore due to the anticipated widths of these structures, and to the nominal atmospheric conditions offshore of the Atlantic coast. It is most likely that vessel traffic associated with Alternative A would use established nearshore traffic lanes. Chapter 5.2.22 of the Programmatic EIS concluded that, as tourism and recreation exists in its current state in the context of existing military, commercial, and recreational water and air vessels that currently traverse these coastal areas, it is unlikely that there would be any detrimental impact on tourism and recreation from the additional vessels associated with Alternative A. No information has been presented that would tend to invalidate the analysis in the Programmatic EIS." Non-Routine Events "The potential impacts of non-routine events on water quality are discussed in Section 4.1.1.2 of this EA. Spills could occur during refueling or as the result of a collision. Since the anticipated meteorological towers would be located 7 or more miles offshore, if a diesel spill occurred in the WEAs, it is unlikely a diesel spill would reach the shore. If a diesel spill were to occur, it would be expected to dissipate very rapidly and biodegrade within a few days. From 2000 to 2009, the average spill size for vessels other than tanker ships and tank barges was 88.36 gallons (U.S. Department of Homeland Security, USCG, 2011). Litter on recreational beaches adversely affec

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	
ACTIVITY (1)	(2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
ACTIVITY (1)		Conclusion "Due to the distance of the proposed lease areas from shore, the fact that no new coastal infrastructure would be necessary, and the small amount of vessel traffic associated with Alternative A that would be present in any given recreational area (particularly given the existing amount of vessel traffic in these areas), no impacts to coastal recreational resources from routine activities or potential spills are expected. While impacts could occur from marine trash and debris, it is unlikely that any additional trash that could be associated with Alternative A would be perceptible. Potential impacts to recreational fishing are discussed in Section 4.1.3.6 of this EA. " 4.1.3.3 Demographics and Employment 4.1.3.3.1 Description of the Affected Environment "Chapter 4.2.18 of the Programmatic EIS describes the heterogeneity of the Atlantic region's sociocultural systems, which is reflected by a variety of demographic, employment, income, land-use, and infrastructure patterns in the coastal communities of the affected states. The Atlantic region consists of a number of contrasting types of economic areas, which include metropolitan areas and large urban areas with highly complex economic structures; urban areas that serve a smaller number of more specialized economic functions; and a large number of local and regional market areas with relatively simple economic structures of New Jersey, Delaware, Maryland and Virginia that would host onshore activities associated with Alternative A is presented in Table 4.12 below." 4.1.3.3 Impact Analysis of Alternative A "Alternative A would require various support services primarily within the coastal counties of Virginia, Maryland, Delaware and New Jersey. Due to the short duration of survey, construction, and decommissioning activities, any benefit to the population and economy workers relative to the existing employment numbers; (Table 4.12 above). ""

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
		Conclusion Alternative A is expected to have negligible but positive impacts on the population and employment of coastal counties of Virginia, Maryland, Delaware and New Jersey that would provide support services for Alternative A.
		4.1.3.5 Land Use and Coastal Infrastructure (see report for description of activities)
		Conclusion Existing ports or industrial areas are expected to be used, and expansion of these existing facilities is not anticipated to support Alternative A. No significant impact on land use or coastal infrastructure is expected.
		4.1.3.6 Commercial and Recreational Fishing Activities (see report for description of activities)
		Conclusion "The increase in vessel traffic, and activities related to the installation/operation of the meteorological towers and buoys would not measurably impact commercial or recreational fishing activities, total catch of fish and shellfish, or navigation over any substantial period of time . Any impacts, such as localized fishing displacement and/or target species availability within the immediate area of activities associated with Alternative A, would be of short duration, limited area, and temporary, and result in negligible, if detectible, impact to fishing."
		Discussion of Other (Nonenvironmental) Impacts Included in EA
		4.1.3.7 Other Uses of the OCS 4.1.3.7.1
		Description of the Affected Environment
		Military Activities (Related to New Jersey) "The Atlantic City OPAREA is an area used for surface, sub-surface and air warfare training exercises located off the coast of New Jersey (Global Security, 2011). Approximately 40 OCS blocks in the New

FEDERAL/STATE		
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	
		Jersey WEA are located in Warning Area 107A (W-107A) and roughly 1 ½ OCS blocks are located in Warning Area 107C (W-107C). The W-107A and W-107C areas are designated special use airspace over the Atlantic City OPAREA and are used for surface-to-air gunnery exercises using conventional ordnance and exercises (Global Security, 2011)."
		Figure 4.5. Military Activity Areas and Uses.

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TASK/ACTION/	DESCRIPTION OF ACTIVITY	FYCERDTS FROM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	
		4.1.3.7.2 Impact Analysis of Alternative A (related to New Jersey) "BOEM consulted with the DOD on Alternative A of this EA. On May 2, 2011, the DOD responded that the impact to the Navy's training areas and other DOD activities from site characterization surveys and installation, operation and decommissioning of meteorological towers/buoys offshore Delaware, New Jersey, Maryland, and Virginia could be mitigated given site specific stipulations in consultation with the DOD (Engle, personal communication, 2011). "
2015 Final Sale Notice for the sale of Lease Areas OCS-A 0498 and OCS-A 0499	 September 2015, BOEM announced that it had published a Final Sale Notice for the sale of Lease Areas OCS-A 0498 and OCS-A 0499 (see 80 FR 57862); the competitive lease sale was held on November 9, 2015. 	Link to Publication in Federal Register: Atlantic Wind Lease Sale 5 (ATLW5) for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore New Jersey—Final Sale Notice 2015-24392.pdf (govinfo.gov) P57862-P57872





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TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCEDDTS EDOM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTART
BOEM Completed	• U.S. Wind Inc. was the	On Nov. 9, 2015, BOEM held a competitive lease sale (i.e., auction) for the Wind Energy Area offshore
Sale and Approved	winning bidder for Lease	New Jersey. The auction lasted seven rounds. RES America Developments Inc., which bid \$880,715 was
Assignment of Lease	Area OCS-A 0499 (see	the winner of lease area OCS-A 0498, and US Wind Inc., which bid \$1,006,240 was the winner of lease
Areas to Different	Figure 1.1-1). In	OCS-A 0499. A summary of the bidding results can view <u>here</u> .
Companies	December 2018, the	
	Lease was assigned to	On April 14, 2016, BOEM received an application to assign 100% of commercial lease OCS-A 0498 FROM
	EDF Renewables	RES AMERICA DEVELOPMENTS to Ocean Wind LLC. BOEM approved the assignment on May 10, 2106.
	Development, Inc. The	The approved assignment is available through this link: www.boem.gov/Assignment-Approval-Lease-
	Lease was subsequently	<u>OCS-A-0498/</u>
	assigned to Atlantic	
	Shores Offshore Wind,	On November 16, 2018 BOEM received an application from U.S. Wind Inc. to assign 100% of commercial
	LLC in August 2019.	lease OCS-A 0499 to EDF Renewables Development, Inc. BOEM approved the assignment on December
		4, 2018. The approved assignment is available through this link: <u>www.boem.gov/Assignment-Approval-</u>
		Lease-OCS-A-0499/
		On April 29, 2019 BOEM received an application from EDF Renewables Development, Inc. to assign 100%
		of commercial lease OCS-A 0499 to Atlantic Shores Offshore Wind, LLC. BOEM approved the assignment
		on August 13,2019. The approved assignment is available through this link: <u>www.boem.gov/OCS-A-</u>
		<u>0499/</u> .
		On December 8, 2020, Ocean Wind LLC submitted an application to BOEM to assign a portion of lease
		#OCS-A 0498 to Orsted North American Inc. BOEM approved the assignment on March 26, 2021. The
		lease area assigned to Orsted North America Inc. now carries the new lease number #OCS-A 0532.
		Orsted North America Inc.'s lease is subject to all terms and conditions of the original lease. Please find a
		copy of the assignment below

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TASK/ACTION/	DESCRIPTION OF ACTIVITY	EVCEDDTS EDOM THE STUDIES / ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	EXCERPTS FROM THE STODIES/ACTIONS & COMMENTARY
BOEM Study on	Study conducted by	The BOEM Study on fisheries was completed after the Wind Energy Areas were defined and sale of
Social- Economic	National Oceanic and	lease areas were completed in 2015.
Impact of OCS Wind	Atmospheric	
Energy Development	Administration (NOAA)	Volume One: Socio-Economic Impact of Outer Continental Shelf Wind Energy Development on Fisheries
on Fisheries in the	and National Marine	in the U.S. Atlantic, Volume I—Report Narrative (boem.gov)
US Atlantic	Fisheries Service (NMFS)	Volume Two: Socio-Economic Impact of Outer Continental Shelf Wind Energy Development on Fisheries
February 2017		in the U.S. Atlantic, Volume II- Appendices (boem.gov)
	• BOEM is required to	
	assess potential impacts	Pg 48. "Nearly all exposure from the NJ WEA is through the surfclam fishery, which is itself highly
	of WEA development	consolidated."
	under the National	
	Environmental Policy Act	Pg 77., 5.4.1 "The NJ WEA is explicitly modeled in the Cluster 2 GC segment (Mid-Atlantic scallop
	(NEPA)	fishermen) and in Cluster 3 (Mid-Atlantic clam fishermen), as described in Section 6.2.6 and Section
		6.2.7, respectively although highly exposed to the NJ WEA, Cluster 3 is expected to be negligibly
	• BOEM will use the report	impacted by its development, with 100 percent of displaced revenue net of variable costs (RNVC)
	to inform decision making	expected to be recovered by fishing in alternative locations."
	related to leases.	
		Pg. 114., 6.2.7 "The same characteristics that make the NJ WEA desirable for wind energy development
	Study not referenced in	(i.e., it is shallow and close to shore) are the same features that make it desirable as surfclam and ocean
	СОР	quahog habitat."

FEDERAL/STATE			
TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY	
ACTIVITY (1)	(2)		
Studies on	Studies on Tourism/	Studies on Tourism/O	Commercial Ocean Uses/Visual Impact
Tourism/Commercial	Commercial Ocean		
Ocean Uses/Visual	Uses/Visual Impact	No agency attempted to	o complete a rigorous study on tourism, commercial ocean uses or visual impact
Impact	Information completed from	hefore the Wind Energy	Area was decided or before the Environmental Assessment and EONSI was
•	2012-2022. after the Wind	determined In Fact ac	surate visual assessments based on current specifications for wind turbines were
	Energy Area was determined	not available until after	the offshore wind areas were leased and Construction and Operation Plans were
	and sale of lease areas was	completed by the Wind	Development Companies for the Ocean Wind Land Atlantic Shores South
	completed.	projects The NI's 2006	Blue Ribbon Panel Report's Guiding Principles for Tourism/Economic
	• • • • • • • • • • • • • • • • • • • •	Impact/Aesthetics were	inadequately studied and addressed. Any conclusions made on the tonic used
	Studies not referenced in	research that was incor	sistent with the New Jersey Shore area environment and wind energy area
	COP.	development project sc	one and wind turbine size
		New Jersey's 2006 Blue	Ribbon Panel Report Included Guiding Principles for Tourism/Economic
		Impact/Aesthetics and	Recommendation
		•	
		Guiding Pr	inciples for Development of Renewable Technologies in New Jersey
			Development of renewable technologies, including offshore wind turbine facilities,
		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	must not cause unacceptable economic impact, including unacceptable impact to
		Tourism/Commercial	tourism and related industries, or to the commercial and recreational fisheries.
		Ocean Uses	Development of renewable technologies, including offshore wind turbine facilities,
			or federal parks and natural areas.
		-	
		Blue Ribbon Panel Rep	ort RECOMMENDATION 3. The Commerce. Economic Growth & Tourism
		Commission should und	lertake a consumer intercept opinion survey summer 2006 to collect data
		necessary to quantify vi	sitors' primary reasons for travel to New Jersey and measure the attitudes of
		these visitor s to the sig	ht of offshore wind turbines at various distances offshore.

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
		The Following Studies on Tourism, Economic, and Visual Impact were completed for BOEM and Wind Development Companies from September 2012- 2022:
		1. In September 2012, BOEM completed this Study: Atlantic Region Wind Energy Development Recreation and Tourism Economic Baseline Development Impacts of Offshore Wind on Tourism and Recreation Economics, Sept 2012 which was after the completion of the Final
		atlantic-region-wind-energy.pdf (noaa.gov)
		This study is often cited as proof that people will not care about the negative impact. However, because there were no offshore wind projects in the US at the time the conclusions were based on the Danish wind farm "Horns Rev" which is mentioned 25 times in this report. According to Orsted the <u>Horns Rev 2</u> project has rotors with 93 meter diameters and located 30km (18 mi) offshore. Horns Rev ,therefore, are smaller and farther away than the wind turbines used for Atlantic Shores ((V236-15MW WTG) and Orsted (GE Haliade -X12MW or option of 13 MW Variant) Projects off the NJ coast.
		 BOEM paid the University of Delaware to complete a study after the Wind Energy Areas were leased. The report, Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism, March 2018 <u>5662.pdf (boem.gov)</u>
		The University of Delaware study lacks validity for the following reasons:
		 The wind turbines shown in the were only 579 feet tall compared to the actual size that will be used in future projects which is at least 851 feet tall. 35% of survey respondents were not beachgoers. Survey respondents, who said the view would be worse, were asked: "How certain they were?" Their responses were adjusted downward for any uncertainty. Survey respondents who said the view would be better were NOT asked any follow-up supervisions.

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TASK/ACTION/	DESCRIPTION OF ACTIVITY	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
ACTIVITY (1)	(2)	
		 The study showed nighttime views to respondents but did not report the results. Other studies (https://cenrep.ncsu.edu/cenrep/wp-content/uploads/2016/03/WP-2017-017.pdf) have shown nighttime visualizations and the opposition increased dramatically compared to daytime views.
		 The University of Delaware Study says property values would fall, but no details were provided.
		 In March 2021, one of the two study's authors stated publicly
		(https://delawaretoday.com/life-style/skipjack-windfarm/) the Study was no longer useful because of the increased height of the planned turbines.
		Energy Updates Caesar Rodney
		This Coastal Delaware Wind Farm Awaits a 2026 Debut (delawaretoday.com)
		 Ocean Wind Visual Impact Assessment for Lease Area OCS-A0498 (Ocean Wind 1,) on BOEM website 3/1/21 Ocean Wind 1 Construction and Operations Plan for Commercial Lease (OCS-A 0498) Bureau of Ocean Energy Management (boem.gov) Appendix L
		4. Atlantic Shores Offshore Wind Visual Impact Assessment for Lease Area OCS-A0499 (Atlantic Shores South) Available on BOEM website March 2022
		Visual Impact Assessment - Atlantic Shores Offshore Wind (hoem gov)
		Attachment E of Appendix II-M1: – Visual Simulations for 13 Key Observation Points
		on website
		Example: North Brigantine Natural Area
		BC02 North Brigantine Natural Area (boem.gov)
		"With the proposed Project in place, the view is dominated by a large and highly visible array of
		WTGs that extend across a large portion of the ocean view to the southeast from this location.
		Project visibility is enhanced by the relative proximity of the WTGs (9.03 miles) and lighting
		conditions that make the WTGs appear relatively dark against the light blue sky Panel
		members indicated that the WTG's become dominant elements in the view. They reduce the

FEDERAL/STATE TASK/ACTION/ ACTIVITY (1)	DESCRIPTION OF ACTIVITY (2)	EXCERPTS FROM THE STUDIES/ACTIONS & COMMENTARY
		 view's sense of openness and add a large number of built features to what was previously an open, undeveloped ocean view. The presence of the WTGs tends to enclose the view, and adds substantial visual clutter. This effect is enhanced by the transition of the WTGs an orderly arrangement to stacked alignment when the viewer is looking down a row of aligned WTGs, making them appear disorderly. The movement of the rotor blades will also attract viewer attention and make the WTGs the focus of this view. Although the visibility and visual dominance of the WTGs is likely to be reduced under more hazy sky conditions, and when lighting conditions reduce WTG contrast with the sky, proximity of the WTGs will allow them to be visible under most clear sky conditions. With the Project in place, this KOP has low to moderate scenic quality. Considering the scale, compatibility, and spatial dominance factors that influenced the visual impact rating at this KOP, panel ratings indicated that the WTGs present severe scale contrast with the ocean (water resources), land use, and user activity. The panel scores also indicate that the WTGs would become the dominant feature in the seascape when compared to the existing water resources, landform, and user activity." 5. CUMULATIVE HISTORIC RESOURCES VISUAL EFFECTS ANALYSIS- OCEAN WIND OFFSHORE WIND FARM PROJECT, Prepared for BOEM, by ICF, Fairfax VA, June 2022 https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/OW1-CHRVEA.pdf?fbclid=lwAR3tqVobeyz9ZWRFhfWhfKAkpI3XPEpCtapFWDb99xSejNtkCPmpmyDafHo

The Minerals Management Service was established on January 19, 1982, by Secretarial order. The Service assesses the nature, extent, recoverability, and value of leasable minerals on the Outer Continental Shelf. It ensures the orderly and timely inventory and development and the efficient recovery of mineral resources; encourages utilization of the best available and safest technology; and safeguards against fraud, waste, and abuse.

MMS was renamed Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) on June 21, 2010. On October 1, 2011, BOEMRE was reorganized into the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE)