

FAST-41 Initiation Notice

Prepared

Marcus Cross (MARCR), 16 October 2018

Checked

Accepted Elisabeth-Anne Treseder, 8 November 2018
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Confidential Business Information

Sections 4 and 6 of this FIN contain confidential and privileged trade secrets and commercial or financial information of Ocean Wind LLC ("OCW") and are protected from disclosure under exemption 4 of the Freedom of Information Act, 5 U.S.C. § 552(b)(4). OCW would face significant commercial harm if Sections 4 and 6 of this FIN were disclosed to the public, or to other entities that may not be obligated to protect their confidentiality. Since this exemption is designed to encourage submitters to voluntarily provide confidential commercial information to the government, while at the same time safeguarding them from the competitive disadvantages that could result from disclosure, OCW requests confidential treatment of Sections 4 and 6 of this FIN.



1 Project Information

1.1 Title

The title of the proposed project is the Ocean Wind Project (the "Project").

1.2 Sector

The Fast-41 project sector is "Renewable Energy Production."

1.3 Type

The Fast-41 project type is "Wind: Federal Offshore."

1.4 Project Sponsor Information

The Project Sponsor is Ocean Wind LLC ("OCW"), a wholly owned subsidiary of Orsted North America, Inc. ("Orsted").

1.5 Location

The Project Sponsor (through one or more affiliated special purpose entities) is proposing to build an offshore wind project located on the Outer Continental Shelf off the coast of New Jersey within the area encompassed by the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS-A 0498) (the "Lease"), which was issued by the U.S. Bureau of Ocean Energy Management ("BOEM").

1.6 Contact

The official point of contact for OCW is: Marcus Cross OCW Permitting Lead Orsted North America Inc.

Email: MARCR@orsted.com Phone: (857) 310-8232

2 Eligibility as a Covered Project

The Project is a Covered Project under 42 USC § 4370m(6), as it:

- i. is subject to NEPA,
- ii. will require a total investment well in excess of \$200 million,
- iii. does not qualify for abbreviated authorization or environmental review processes under any applicable law,
- iv. is likely to benefit from enhanced oversight and coordination because the Project will require authorization from several federal agencies,
- v. will require an Environmental Impact Statement, and
- vi. is not subject to 23 U.S. Code \S 139 or 33 U.S. Code \S 2348.

As noted below, OCW anticipates filing its Construction and Operation Plan (COP) in early 2019. Under guidance jointly issued by the Office of Management and Budget and the Council on Environmental Quality for agency implementation of FAST-41, it is explicitly contemplated that "[f]or many projects, the Initiation Notice is likely to be submitted, and the FAST-41 process may begin, before a complete application is filed."



The FAST-41 guidance lays out several alternative procedures that federal agencies may take to meet the objectives of the FAST-41 program, such as the posting of the project on the FAST-41 Dashboard and development of Comprehensive Permit Planning (CPP), in advance of a complete application being filed. Of particular relevance to OCW and the Project, Section 4.28 of the FAST-41 Guidance permits federal agencies in the CPP to:

- provide estimated milestones with the caveat that such milestones are dependent upon actions outside agency control;
- provide explicit disclaimers that the milestones are estimates only and could vary widely depending upon when the COP is filed; or
- provide a generic timetable that is not tied to specific calendar dates but is keyed to the date of application (i.e., "90 days after complete application").

OCW believes that it would be acceptable and appropriate for the Department of Interior and BOEM to include one or more of these flexibility mechanisms in the CPP for the Ocean Wind Project.

Finally, OCW believes that designating the Project as a Covered Project would be consistent with and help further the important public policy objectives underlying the FAST-41 program: to improve the timeliness, predictability, and transparency of the Federal environmental review and authorization process for infrastructure projects. OCW is a significant step forward for New Jersey's energy infrastructure development and FAST-41 designation would enable the state to more accurately predict how the project will fit into the state's energy timeline and its energy, economic and environmental goals. The transparency, accountability and inter-agency coordination that are the hallmarks of the FAST-41 process are essential to helping New Jersey achieve these goals.

We also note that designating the Project as a Covered Project would be consistent with the broad consensus view of the Department, the Permitting Council, and Congress that early coordination is a key to success for energy infrastructure projects. OCW understands that the Secretary of the Interior has made it a priority to streamline the environmental review and permitting process for offshore wind projects without compromising the Nation's conservation values. Adding the Ocean Wind Project to the FAST-41 Dashboard will enhance interagency coordination and streamline permitting such that the Project is likely to achieve commercial operation sooner, while remaining protective of the marine resources in the proximity of the Project area.

Orsted is mindful of the Department's need to efficiently deploy scarce administrative resources in meeting its many responsibilities to its diverse stakeholders. However, if the Department adopts the flexibility measures identified above, Orsted does not believe the designation of the OCW Project as a Covered Project would create burdens for purposes of NEPA initiation by the agency. In this regard, Orsted notes that its proposed Bay State Wind Project was designated as a Covered Project under similar circumstances, and that BOEM already is in the process of mapping out the interagency coordination that would generally be required for the permitting of offshore wind projects in federal waters.

3 Project Purpose and Objectives

OCW intends to develop, build, operate, and own (through one or more affiliated special purpose entities) a utility-scale offshore wind farm located approximately 8.2 miles off the coast of New Jersey within the Lease



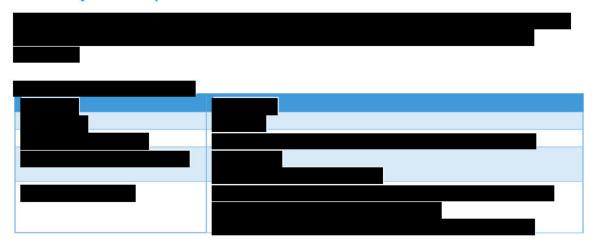
Area (the "Project"). The Project is being developed to serve the New Jersey market pursuant to the ongoing State of New Jersey's Offshore Wind Economic Development Act Section 4 procurement process, administered by the New Jersey Board of Public Utilities ("NJBPU"), which will solicit initial proposals for offshore wind projects with an aggregate capacity of up to 1,100 MW. The proposed capacity of the Project allows flexibility to build the Project in phases and support future solicitations and/or corporate power purchase agreement (PPA). Under these PPAs the Project could enter into a long-term contract with an independent power producer or a utility that commits to purchasing a specific amount of renewable electricity at an agreed price. Additional projects will also be developed within the Lease Area in the future in support of New Jersey Governor Phil Murphy's Executive Order Number 8, which established a goal of developing 3.5 GW of offshore wind by 2030.1 Further solicitations by the NJBPU of 1,200 MW each are expected in 2020 and 2022.

The Project may be developed and constructed in phases and would consist of up to 165 wind turbine generators ("WTG"), associated inter-array cabling, new onshore and offshore substations, transmission cables and onshore works for connection to the wholesale electric grid administered by PJM Interconnection L.L.C. ("PJM").

The nameplate capacity of the individual WTGs and total number of WTGs that are incorporated into the Project may change to optimize Project cost and performance closer to a Final Investment Decision ("FID") and prior to the construction phase for the Project. Total Project costs are estimated to be between \$4.4 billion to \$4.8 billion,² based on an illustrative 1,000 MW build-out.

The expected operating life for the Project is at least 25 years. Some physical aspects, such as onshore transmission components and any required transmission system upgrades, will have a longer expected operating life.

4 Project Description



¹ https://nj.gov/governor/news/news/562018/approved/20180131a eo.shtml

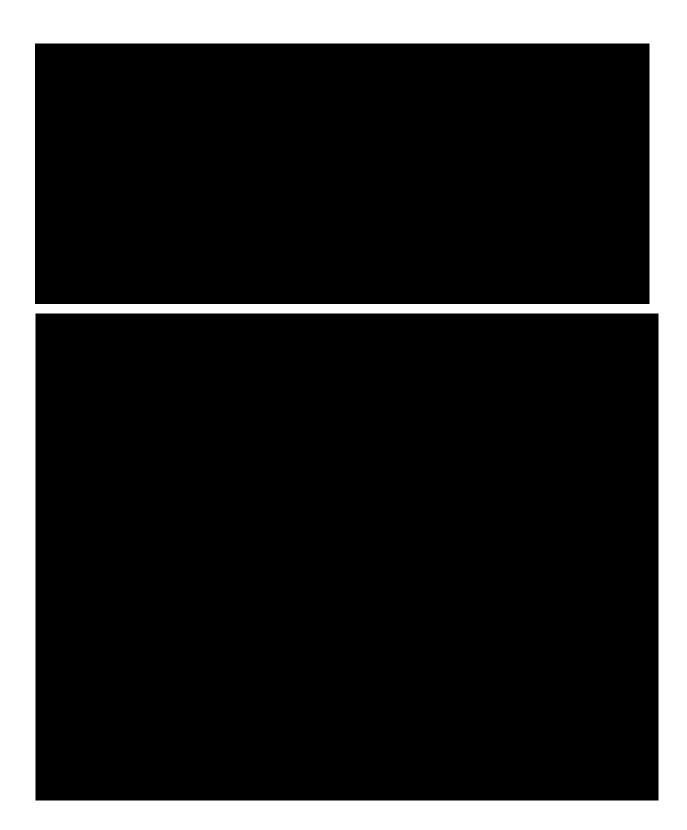
² Based on NREL's US offshore wind project \$/kW CAPEX figures (NREL, '2015 Cost of Wind Energy Review,' revised May 2017).

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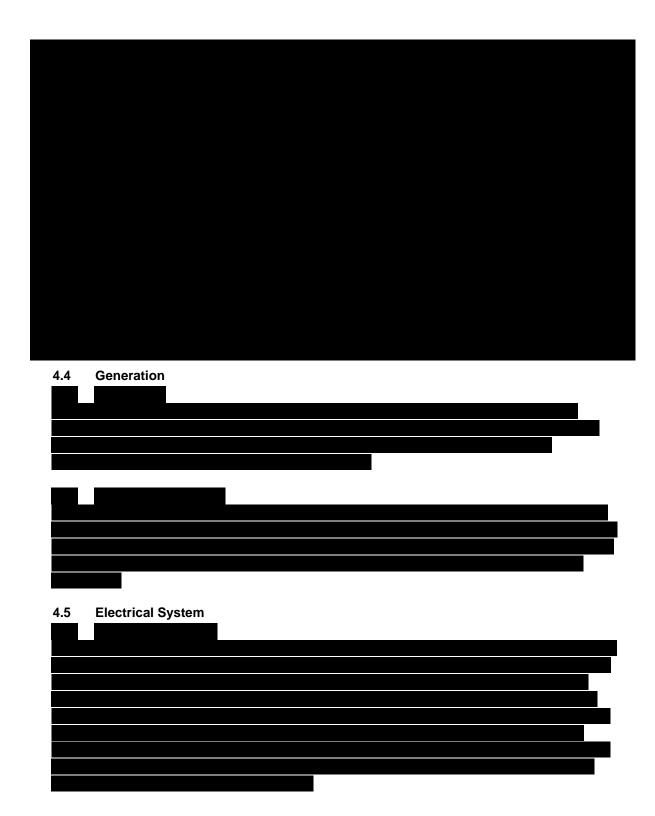


4.2	Geospatial Information	

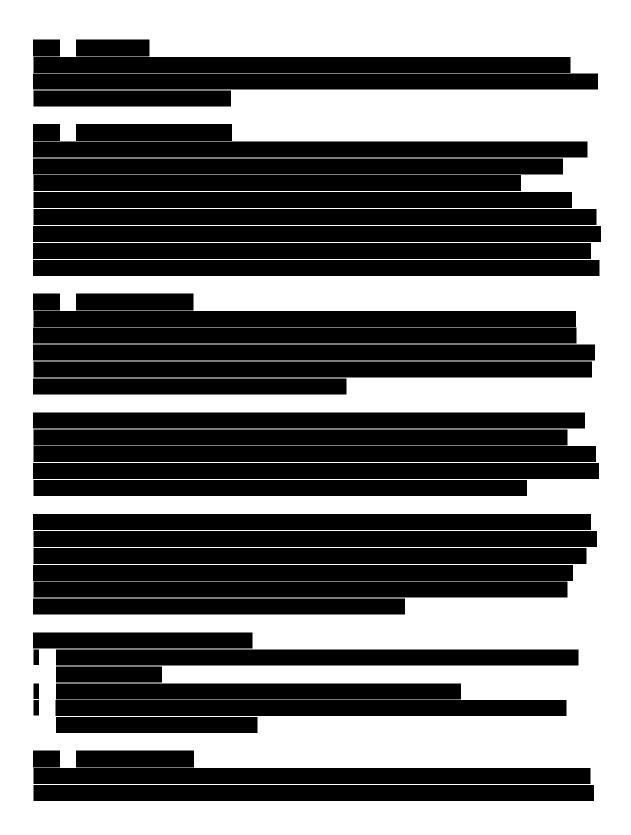


4.3 Project Components	











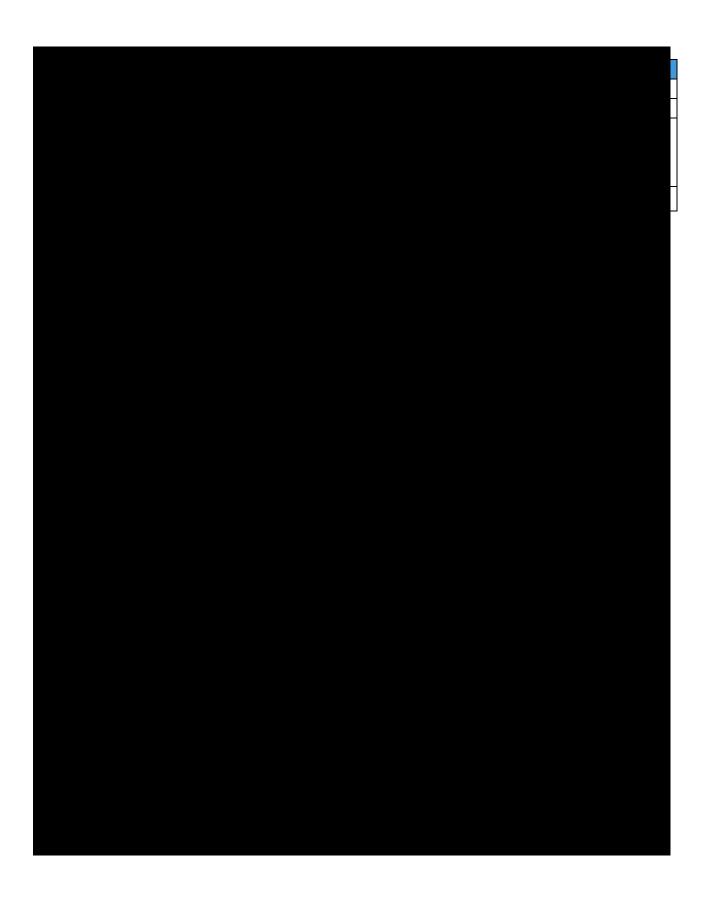
4.6	Environmental, Cultural, and Historic Resources





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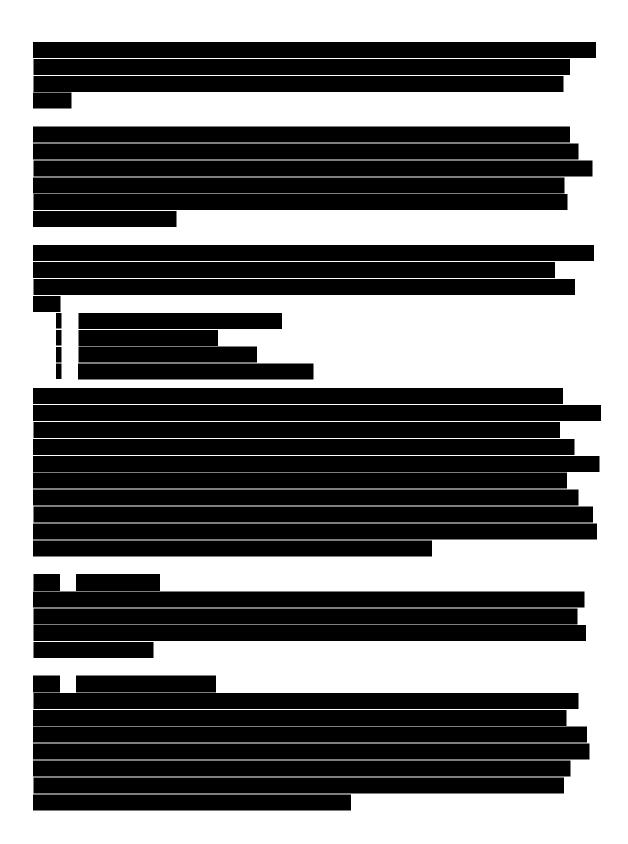
















5 Technical and Financial Abilities of Project Sponsor

OCW benefits from Orsted's extensive experience in developing, constructing, and operating complex energy projects. Orsted's affiliates have developed more offshore wind projects than any other company in the world.

5.1 Technical Viability

Through its European affiliates, Orsted has industry leading experience and exposure to the rigors and challenges of the offshore wind business. Headquartered in Denmark, the companies' existing business activities span Denmark, the United Kingdom, Germany, the Netherlands, the United States, and Taiwan, as depicted in Figure 5.1 below. As a result, Orsted is well practiced in adapting to, and thriving within, new regulatory, consenting, and political landscapes. Its affiliates have constructed 5.1 GW of offshore wind capacity as of July 2018, delivering approximately one-third of all global capacity installed, encompassing



some of the largest and most technologically advanced offshore wind farms in the world. Collectively, there are 24 offshore wind farms in operation and four under construction. Technical design and constructability is retained in-house and is based on almost three decades of experience of engineering, procuring, and constructing offshore wind farms and complex onshore transmission lines. This in-house experience and technical know-how is what sets the Project apart from all other offshore wind developers.

Orsted's and its affiliates' experience in offshore wind development, construction, operation, and decommissioning is relevant to the Project. Specific examples of expertise in development and operations of offshore wind energy projects include:

- Permitting of complex projects with input and consent required from numerous stakeholders including regulatory agencies, NGOs, and the fishing industry;
- Design and planning of high-voltage transmission solutions capable of delivering power from offshore wind projects to the identified onshore grid connection point, from as far away as 55 miles;
- Design and construction of offshore wind farms in challenging marine environments, including far-fromshore projects, high wave heights, high wind speeds and rough sea conditions; and
- Planning and execution of operations and maintenance strategy for offshore wind farms.

By combining the lessons learned and experience gained from the development, construction, and operation of offshore projects in Europe, Orsted will be capable of designing and implementing technical solutions that are appropriate and proven.



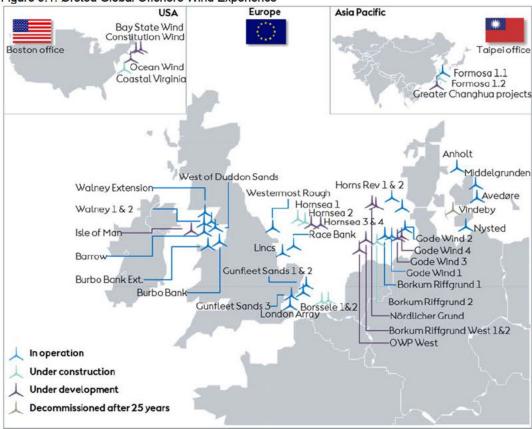


Figure 5.1: Ørsted Global Offshore Wind Experience

5.2 Financial Viability

Orsted's financial capability to construct and operate the Project is based on several factors, including financial strength as well as experience in financing, constructing, and operating offshore wind globally. Orsted brings unrivaled financial capacity to the Project. Orsted's ultimate parent company (Ørsted A/S ("Ørsted")) is a stable and diverse energy company with strong balance sheets indicative of the financial strength needed to complete and operate the Project, as demonstrated by the credit ratings in Table 5.1 and the selected financial data in Tables 5.2 and 5.3 below:

Table 5.1 Ørsted Credit Ratings

Sponsor	S&P	Moody's	Fitch
Ørsted A/S	BBB+ (stable)	Baa1 (stable)	BBB+ (stable)

Table 5.2 Ørsted Selected Consolidated Financial Data - Balance Sheet and Income Statement

(Millions of Dollars)	2017	2016	2015
Balance Sheet Data			
Total Assets	21,978	20,473	22,119
Capital Employed	10,548	9,144	9,140



Income Statement Data

Revenue	8,926	9,180	9,817
EBIT	2,435	2,082	281

From Ørsted 2017 Annual Report

Assumes DKK to USD exchange rate of 0.15

Table 5.3 Ørsted Selected Consolidated Cash Flow Data – Funds from Operations and Debt Issuances

(Millions of Dollars)	2017 ^[1]	2016	2015
Cash flow from operating activities	153	1,691	1,128
Interest-bearing net debt	-228	519	1,379

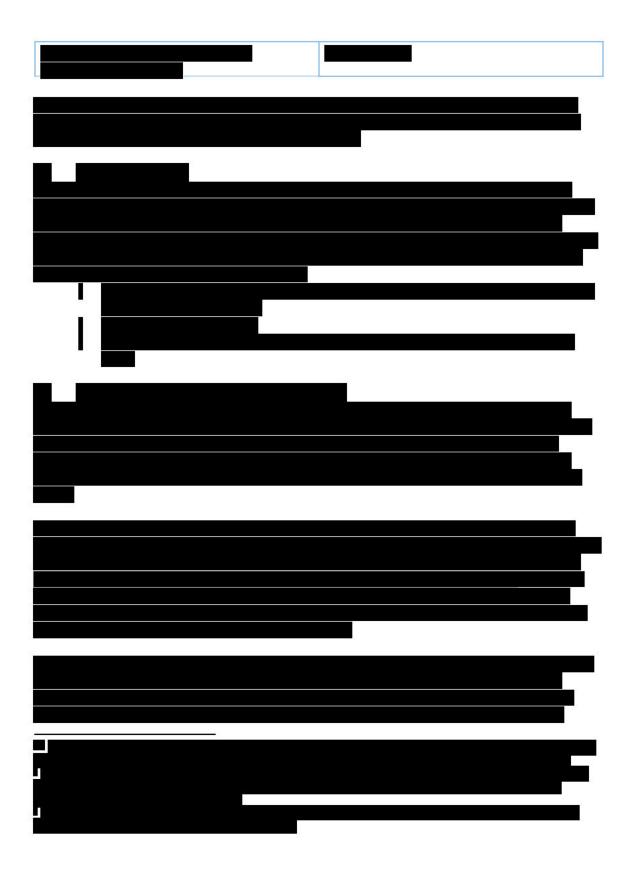
From Ørsted 2017 Annual Report

Assumes DKK to USD exchange rate of 0.15

6 Anticipated Financing, Environmental Reviews, and Authorizations













7 Attachment 1: Permit Matrix

Ocean Wind Permit Table

Occur Willa i Ci	SAME ALEMANDA							
Permitting Agency	Applicable Permit or Approval	Application Review Timeline	Statutory Basis	Regulation	Regulated Activity			
Federal								
Bureau of Ocean Energy Management (BOEM)	Lease	Lease OCS-A 0498 Issued Feb. 4, 2016; Preliminary term extended to March 1, 2018	Energy Policy Act of 2005 (amended Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331)	30 CFR 585 – Renewable Energy And Alternate Uses of Existing Facilities on the Outer Continental Shelf (OCS)	Offshore wind project on the OCS			
ВОЕМ	Site Assessment Plan (SAP) Approval	SAP submitted Nov. 2017; Approved May 27, 2018	Energy Policy Act of 2005	30 CFR 585 – Renewable Energy And Alternate Uses of Existing Facilities on the Outer Continental Shelf (contents of SAP - 30 CFR §585.610)	Offshore wind project on the OCS			
ВОЕМ	Construction and Operations Plan (COP) Approval	1 year ¹⁰	Energy Policy Act of 2005 National Environmental Policy Act (NEPA), 42 USC §§ 4321 et seq.	30 CFR 585 – Renewable Energy And Alternate Uses of Existing Facilities on the Outer Continental Shelf (contents of COP - 30 CFR §585.626 and §585.627)	Offshore wind project on the OCS			
USEPA	Air Permit for OCS Sources FLIDAR Project	FLiDAR permit Approved November 5 2018	Clean Air Act (CAA) Section 328	40 CFR §55.6	Offshore wind project on the OCS			
U. S. Army Corps of Engineers (USACE)	Individual Permit	120 days or more	Section 10 of Rivers and Harbors Act (33 USC 403); Section 404 of Clean Water Act (33 USC 134)	33 CFR Part 320 through 332	Activities within navigable waters and dredging, filling or excavation within Waters of the U.S.			

¹⁰ Secretary of Interior's Order No. 3355, established a target for BOEM to complete an EIS within one year of issuance of the Notice of Intent (NOI) to prepare an EIS.



Permitting Agency	Applicable Permit or Approval	Application Review Timeline	Statutory Basis	Regulation	Regulated Activity
Federal Aviation Administration (FAA)	FAA Form 7460-1, Notice of Proposed Construction or Alteration (for Hazard to Air Navigation Determination)	45 days	49 U.S.C. §1301 et. seq.	14 CFR Part 77	14 CFR 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace
United States Coast Guard (USCG)	Private Aid to Navigation (PATON) authorization	Not specified (estimate 90 days)	Ports and Waterway Safety Act, 33 USC 1221 et seq.	33 CFR §66	USCG ensures the safety and environmental protection of U.S. ports and waterways.
BOEM/New Jersey Historic Preservation Office (NJHPO), Tribes	National Historic Preservation Act (NHPA) Section 106 Consultation	Up to 12 months	NHPA, 54 USC § 300101 (New Jersey Register of Historic Places Act N.J.S.A 13:1B)	36 CFR Part 60 – National Register of Historic Places; 36 CFR Part 800 – Protection of Historic Properties	Effects to historic resources
BOEM/National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS)	Endangered Species Act (ESA) Section 7 Consultation	Variable (6-9+ months)	ESA 16 USC §§ 1531-1544	50 CFR Part 17 and Part 402	Effects to species listed under the ESA (to be initiated by BOEM)
BOEM/NMFS	Magnuson-Stevens Fishery Conservation and Management Act Consultation	Variable (estimate 6 months)	Magnuson-Stevens Fishery Conservation and Management Act/ 16 USC 1801	50 CFR 600	Effects to Essential Fish Habitat
NMFS	Incidental Harassment Authorization (IHA) or Letter of Authorization (LOA)	IHA - 6-9+ months LOA - 12-18+ months	Marine Mammal Protection Act (MMPA), 16 USC 1361 et seq.	50 CFR 216	Harassment of marine mammals
BOEM/U.S. Fish and Wildlife Service (USFWS)	ESA Section 7 Consultation	Variable (estimate 6-9+ months)	ESA, 16 USC §§ 1531-1544	50 CFR Part 17 and Part 402	Effects to species listed under the ESA (to be initiated by BOEM)
		State De	New Jersey ermits/Authorizations		
New Jersey Department	Waterfront	90 days	Waterfront	Coastal Zone	Construction activities within the
of Environmental Protection (NJDEP), Division of Land Use Regulation (DLUR)	Development Permit and Coastal Consistency Determination		Development Act N.J.S.A. 12:5-3; Coastal Zone Management Act 16 USC §1456	Management Rules N.J.A.C. 7:N.J.A.C. 7:7	Waterfront Development Area (includes upland WDA and inwater WDA).



Permitting Agency	Applicable Permit or Approval	Application Review Timeline	Statutory Basis	Regulation	Regulated Activity
NJDEP, DLUR	Coastal Areas Facility Review Act (CAFRA) Permit and Coastal Consistency Determination	90 to more than 120 days if public hearing is required.	Coastal Areas Facility Review Act, N.J.S.A. 13:19; Coastal Zone Management Act 16 USC §1456	Coastal Zone Management Rules N.J.A.C. 7:7	Activities within the CAFRA Zone (upland only).
NJDEP, DLUR	Coastal Wetlands Permit	90 days	Wetlands Act of 1970, N.J.S.A. 13:9A	Coastal Zone Management Rules N.J.A.C. 7:7	Activities within coastal wetlands delineated pursuant to the Wetlands Act of 1970.
NJDEP, DLUR	Flood Hazard Area Permit	90 days	Flood Hazard Area Control Act N.J.S.A. 58:16A	Flood Hazard Area Control Act Rules N.J.A.C. 7:13	Activities within the Flood Hazard Area.
NJDEP, DLUR	Freshwater Wetlands Permit	90 –more than 120 if a site visit is required.	Freshwater Wetlands Protection Act N.J.S.A. 13:9B	Freshwater Wetlands Protection Act Rules N.J.A.C. 7:7A	Freshwater wetlands, wetland transition area, and State open water.
NJDEP, DLUR	401 Water Quality Certification	90 to over 120 days (dependent on other DLUR permits required)	Section 401 of Clean Water Act	Coastal Zone Management Rules N.J.A.C. 7:7	Required in support of USACE permits.
NJDEP, Division of Water Quality	Stormwater Construction General Permit (5G3)	30 days	New Jersey Water Pollution Control Act N.J.S.A 58:10A	New Jersey Pollutant Discharge Elimination Program (NJPDES) Rules N.J.A.C. 7:14A	Construction activities disturbing one or more acres of land.
NJDEP, Division of Water Quality	Short Term De Minimis General Permit (B7)	14 days	New Jersey Water Pollution Control Act N.J.S.A 58:10A	New Jersey Pollutant Discharge Elimination Program (NJPDES) Rules N.J.A.C. 7:14A	Discharge of groundwater resulting from dewatering activities associated with construction.
NJDEP, Bureau of Tidelands Management	Tidelands License	90 day following NJDEP Land Use permit approval	Tidelands Act, N.J.S.A. 12:3		All mapped tidelands either now or formerly flowed by the mean high tide of a natural waterway.
NJDEP, Green Acres Program ¹¹	Major Diversion of Parkland	12-18 months	New Jersey Green Acres Land Acquisition Act, N.J.S.A 13-8A	Green Acres Rules N.J.A.C. 7:36	All parks and open spaces encumbered under the Green Acres Program.
NJDEP, Division of Parks and Forestry, Natural Heritage Program	Threatened and Endangered Species consultation	2-3 weeks	New Jersey Endangered Species Conservation Act N.J.S.A 23:2A		Any activities requiring authorization from NJDEP.

¹¹ Not applicable to all routes.



Permitting Agency	Applicable Permit or Approval	Application Review Timeline	Statutory Basis	Regulation	Regulated Activity			
NJDEP, NJHPO	NHPA Section 106 Consultation	Up to 12 months	New Jersey Register of Historic Places Act N.J.S.A 13:1B (NHPA, 54 USC § 300101)	36 CFR Part 60 – National Register of Historic Places; 36 CFR Part 800 – Protection of Historic Properties	Any activities requiring authorization from NJDEP. Any surveys required on Stateowned lands would require a land use permit from the land manager			
NJDEP, Division of Parks and Forestry,	Consultations and approvals for activities on State Lands and Parks	Variable (estimate 3-6 months)	N.J.S.A 13:1B	State Park Service Code (N.J.A.C. 7:2-2.5)	Commercial activities in all State parks, forests, recreation areas, historic sites, natural areas, marinas, golf courses, botanical gardens, and other lands, waters and facilities under the jurisdiction of the Department and assigned to the State Park Service			
NJDEP Division of Water Supply and Geoscience	Water Allocation Permit				Currently in use at BL England Generating Station. Coordination with NJDEP may be required for repurposing the permit for potable use.			
New Jersey Department of Transportation (NJDOT)	Highway Occupancy Permit ¹²	Variable (estimate 3-6 months)	Highways N.J.S.A 27:1A-5 through 7	Highway Occupancy Permits N.J.A.C 16:41	Activities within any portion of State highway right-of-way or property under the jurisdiction of the NJDOT.			
New Jersey Pinelands Commission ²	Development Application	30 day review – may require field surveys.	Pinelands Protection Act	Pinelands Comprehensive Management Plan	Activities within the Pinelands Area.			
	Delaware State Permits/Authorizations							
Delaware Department of Natural Resource and Environmental Control (DNREC), Delaware Coastal Management Program (DCMP)	Coastal Consistency Determination	3 – 6 months	Delaware Coastal Zone Act 7 Del.C. 70; Coastal Zone Management Act 16 USC §1456	Natural Resources and Environmental Control 7 Delaware Administrative Code (D.A.C) 101	Activities requiring a federal license or permit, whether inside or outside Delaware's coastal zone management area, if it will affect any natural resources, land uses, or water uses of Delaware's coastal zone management area.			

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¹² Construction permit (all others are planning permits).