# Appendix E. Project Design Envelope and Maximum-Case Scenario

Ocean Wind proposes the Project using a PDE concept. This concept allows Ocean Wind to define and bracket proposed Project characteristics for environmental review and permitting of the Project while maintaining a reasonable degree of flexibility for selection and purchase of Project components such as WTGs, foundations, export cables, and OSS.<sup>1</sup>

BOEM provides Ocean Wind and other lessees with the option to submit COPs using the PDE concept—providing sufficiently detailed information within a reasonable range of parameters to analyze a "maximum-case scenario" (described below) within those parameters for each affected environmental resource. BOEM identified and verified that the maximum-case scenario based on the PDE provided by Ocean Wind and analyzed in this Final EIS could reasonably occur if approved. This approach is intended to provide flexibility for lessees and allow BOEM to analyze environmental impacts in a manner that minimizes the need for subsequent environmental and technical reviews as design changes occur.

This Final EIS assesses the impacts of the reasonable range of Project designs that are described in the Ocean Wind 1 COP by using the maximum-case scenario process. The maximum-case scenario analyzes the aspects of each design parameter that would result in the greatest impact for each physical, biological, and socioeconomic resource. This Final EIS considers the interrelationship among aspects of the PDE rather than simply viewing each design parameter independently. This Final EIS also analyzes the planned action impacts of the maximum case scenario alongside other reasonably foreseeable past, present, and future actions.

A summary of Ocean Wind 1's PDE parameters is provided in Table E-1. Table E-2 details the full range of maximum-case design parameters for the proposed Project and which parameters are relevant to the analysis for each EIS section in Chapter 3, *Affected Environment and Environmental Consequences*.

# Table E-1 Summary of PDE Parameters

# Project Parameter Details

#### **General (Layout and Project Size)**

- Up to 98 WTGs
- Project anticipated to be in service in late 2024 or early 2025

#### **Foundations**

• Monopile foundations with transition piece, or one-piece monopile/transition piece, where the transition piece is incorporated into the monopile

- Foundation piles would be installed using a pile-driving hammer
- Scour protection around all foundations

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<sup>&</sup>lt;sup>1</sup> Additional information and guidance related to the PDE concept can be found here: <a href="https://www.boem.gov/Draft-Design-Envelope-Guidance/">https://www.boem.gov/Draft-Design-Envelope-Guidance/</a>.

# **Project Parameter Details**

#### Wind Turbine Generators

- Rotor diameter up to 788 feet (240 meters)
- Hub height up to 512 feet (156 meters) above MLLW
- Upper blade tip height up to 906 feet (276 meters) above MLLW
- Lowest blade tip height 70.8 feet (22 meters) above MLLW

#### **Inter-Array Cables**

- Target burial depth of 4 to 6 feet (1.2 to 1.8 meters) depending on site conditions, navigation risk, and third-party requirement (final burial depth dependent on CBRA and coordination with agencies)
- Cables could be up to 170 kV (alternating current)
- Preliminary layout available; however, final layout pending
- Maximum total cable length is 190 miles (approximately 300 kilometers)
- Cable lay, installation, and burial: Activities may involve use of a jetting tool (jet ROV or jet sled), vertical injection, leveling, mechanical cutting, plowing (with or without jet-assistance), pre-trenching, controlled-flow excavation

### **Offshore Export Cables**

- Up to three maximum 275 kV alternating current export cables
- Target burial depth of 4 to 6 feet (1.2 to 1.8 meters) depending on site conditions, navigation risk, and third-party requirements (final burial depth dependent on burial risk assessment and coordination with agencies)
- Two export cable route corridors, Oyster Creek and BL England
- Maximum total cable length is 143 miles (230 kilometers) for Oyster Creek and 32 miles (51 kilometers) for BL England
- Cable lay, installation, and burial: Activities may involve use of a jetting tool (jet ROV or jet sled), vertical injection, leveling, mechanical cutting, plowing (with or without jet-assistance), pre-trenching, backhoe dredger, controlled-flow excavation

#### Offshore Substations

- Up to three OSS
- Total structure height up to 296 feet (90 meters) above MLLW
- Maximum length and width of topside structure 295 feet (90 meters; with ancillary facilities)
- OSS installed atop a modular support frame and monopile substructure or atop a piled jacket foundation substructure
- · Foundation piles to be installed using a pile-driving hammer
- Scour protection installed at foundation locations where required

# **Landfall for the Offshore Export Cable**

- Open cut or trenchless (e.g., HDD, direct pipe, or auger bore) installation at landfall
- Up to six cable ducts for landfall, if installed by trenchless technology
- A reception pit (may be subsea pit, not yet finalized) would be required to be constructed at the exit end of the bore
- Construction reception pit: excavator barge, land excavator mounted to a barge, sheet piling from barge used for intertidal cofferdams, swamp excavators
- Sheet pile would be used at open cut landfall to stabilize trench through the shoreline

# **Project Parameter Details**

#### Offshore Substations Interconnector Cable

- Maximum 275 kV alternating current cables
- Target burial depth of 4 to 6 feet (1.2 to 1.8 meters) depending on conditions (final burial depth dependent on burial risk assessment and coordination with agencies)
- · Potential layout available; however, final layout pending
- Maximum total cable length is 19 miles (approximately 30 kilometers)
- Cable lay, installation, and burial: Activities may involve use of a jetting tool, vertical injection, pretrenching, scar plow, trenching (including leveling, mechanical cutting), plowing, controlled-flow excavation

#### **Onshore Export Cable**

- Connect with offshore cables at TJB and carry electricity to the onshore substation
- Would be buried at a target burial depth of 4 feet (1.2 meters) (this represents a target burial depth rather than a minimum or maximum)
- Could require up to a 50-foot (15-meter) wide construction corridor and up to a 30-foot (9-meter) wide
  permanent easement for Oyster Creek and BL England cable corridor excluding landfall locations and
  cable splice locations to accommodate space for splice vaults, joint bays, and HDD. Permanent
  easements are expected to be larger at splice vaults and TJB locations.
- Up to eight export cables circuits would be required, with each cable circuit comprising up to three single cables. The cables would consist of copper or aluminum conductors wrapped with materials for insulation protection and sealing.
- TJBs, splice vaults/grounding link boxes, and fiber optic system, including manholes

#### **Onshore Substations and Interconnector Cable**

- Two onshore substations in proximity to existing substations with associated infrastructure
- Each onshore substation would require a permanent site (for Oyster Creek interconnection point up to 31.5 acres and for BL England up to 13 acres), including area for the substation equipment and buildings, energy storage, and stormwater management and landscaping
- During construction, up to an additional 3 acres would be required for temporary workspace
- The main buildings within the substations would be up to 1,017 feet long, 492 feet wide, and 82 feet tall (310 meters long, 150 meters wide, and 25 meters tall)
- Secondary buildings may be used to house reactive compensation, transformers, filters, a control
  room, and a site office. The external electrical equipment may include switchgear, busbars,
  transformers, high-voltage reactors, SVC/static synchronous compensator, synchronous condensers,
  harmonic filters, and other auxiliary equipment. Lightning protection would include up to 35 lightning
  masts at Oyster Creek and up to 25 masts at BL England for a total height up to 98 feet (30 meters).
- Maximum height of overhead lines would be 115 feet (35 meters)
- Interconnector cable to existing substation

ROV = remotely operated vehicle; SVC = static VAR compensator

Table E-2 Maximum-Case Design Parameters for the Ocean Wind 1 Project (an "X" indicates that the parameter is relevant to an EIS resource analysis)

Table E-2 Maximum-Case Design F	arameters for the Ocean			ot (all	, IIIG	ioutos	tilat tile	Parai	iletei is	CICVO	to a			o anai,	, 515,					
Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
WIND FARM					I		l l		T T			l l		T	· •			ľ	T	
Wind farm capacity	1,100 MW	X	Х	X	Х	Х	Х	X	X	Χ	Х	Х	X	Х	Х	Χ	Х	Χ	Х	Х
WIND TURBINES																				
Parameters per Turbine		T			l							I I		I		1	<u> </u>			
Minimum lower blade tip height (feet) (relative to MLLW)	70.8		Х		Х		Х	Х		Χ		Х		Х	Х	Χ		Χ		
Maximum upper blade tip height (feet) (relative to MLLW)	906		Χ		Х		Х	Х		Χ		Χ		Х	Χ	Χ		Χ		1
Maximum rotor diameter (feet)	788		Χ		X			Х		Χ		Х		X	Χ	Χ		Χ		
Parameters per Turbine Foundation		1			ı		Т					П		Π				ı		
Outer diameter at seabed of main tubular structure (feet)	37			Χ			Χ	Х			Х		Χ	Х			Χ		Χ	<b></b>
Sea surface diameter (feet)	27						Х	Χ		Χ	Χ		Χ	Х			Χ	Χ		<b></b>
Scour protection (if required) diameter (yards)	61			Х	Х		Х			Χ	Х		Х	Х			Χ		Χ	<b> </b>
Scour protection (if required) layer thickness (feet)	8.2			Х	Х		Х			Χ	Х		Х	Х			Χ		Χ	<b> </b>
Seabed structure area per monopile (acres)	0.023			Х	Х		Х	X		Χ	Χ		Х	Х			Χ		Χ	<u> </u>
Seabed scour protection (if required) area per monopile (acres)	0.59			X	Х		Х	X		Χ	Х		X	Х			Χ		Χ	<u> </u>
Seabed permanent area affected per monopile (acres)	0.85			Х	Х		Х	Х		Χ	Χ		X	Х			Χ		Χ	ļ
Scour protection (if required) volume per monopile (cubic yards)	7,764			Х	Х		Х				Х		X	Х			Χ		Χ	<u> </u>
Pile structure grout volume per monopile (cubic yards)	144			Х							Χ		X	Х			Χ		Χ	<u> </u>
Seabed penetration (feet)	164			Χ			Х	Χ		Χ	Χ		Χ	Χ			Χ		Χ	1
Maximum hammer energy (kilojoules)	4,000		Χ	Χ	X		Χ				Χ		Χ	Х			Χ		Χ	1
Indicative continuous piling duration per turbine (hours)	4		Χ	Χ	Χ		Х				Χ		Χ	Χ			Χ		Χ	
Maximum Total Impacts for Wind Turbine Foundations																				
Maximum number of turbines	98	Х	Χ	Χ	Χ		Х	Χ		Χ	Χ	Χ	Χ	Х	Х	Χ	Χ	Χ	Χ	
Total seabed structure area (acres)	2.3			Χ			Χ	Χ		Χ	Χ	Χ	Χ	Х			Χ	Χ	Χ	
Total scour (if required) protection area (acres)	58			Χ	X		Χ			Χ	Χ		Χ	Х			Χ		Χ	
Total permanent affected area (acres)	60.3			Χ	Х		Χ	Χ		Χ	Χ		Χ	Χ			Χ	Χ	Χ	
Total scour (if required) protection volume (cubic yards)	761,000			Χ	Х		Χ				Χ		Χ	Χ			Χ		Χ	
Total pile structure grout volume (cubic yards)	14,000			Χ							Χ		Χ	Χ			Χ		Χ	I

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
OFFSHORE SUBSTATIONS																				
Topside Offshore Substations																				
Number of substations	3	Х	Χ	Χ	Χ		Χ	Х		Χ	Х	Х	Χ	Χ	Χ	Χ	Χ	Х	Х	
Length of topside main structure (feet)	230		Χ	Χ	Χ		Χ	Χ		Χ	Х	Х	Χ	Χ			Χ	Х		
Width of topside main structure (feet)	230		Χ	Χ	Χ		Χ	Х		Х	Х	Χ	Χ	Χ			Х	Х		
Length of topside main structure inclusive of ancillary structures (feet)	295		Χ		Χ		Χ	Χ		Χ	Х	Х	Χ	Χ			Χ	Х		
Width of topside main structure inclusive of ancillary structures (feet)	295		Χ		Χ		Χ	Х		Χ	Х	Х	Χ	Χ			Χ	Х		
Total structure height: including ancillary structures (feet) (relative to MLLW)	296		Χ		Χ		Χ	Х		Х		Х		Χ	Χ			Х		
Bridge links link length (feet)	328									Х		Х		Χ				Х		
Substation Foundations (Parenthesis notes Maximum Scenario Foundation	Type)		ı			I		I			1								<u> </u>	
Maximum number of structures	3	Х	Χ	Х	Χ		Х	Х		Х	Х	Х	Χ	Χ	Χ	Χ	Χ		Х	
Maximum scour protection (if required) dimension (yards)	72 (Monopile)			Χ	Χ		Χ				Х		Χ	Χ			Х		Х	
Maximum structure dimension at seabed (yards)	77 (Piled Jacket)			Χ	Χ		Χ	Χ			Х		Χ	Χ			Χ		Х	
Maximum structure dimension at sea surface (yards)	77 (Piled Jacket)						Χ	Χ			Х		Χ	Χ			Χ		Х	
Number of Piles	16 (Piled Jacket)		Χ	Χ	Χ		Χ	Χ			Х	Х	Χ	Χ			Χ		Х	
Seabed preparation area (acres)	0			Χ			Χ	Х			Х		Χ	Χ			Χ		Х	
Seabed gravel bed area (acres)	0			Χ	Χ		Χ	Х		Χ	Х		Χ	Χ			Χ		Х	
Seabed structure area (acres)	0.04 (Monopile)			Χ			Χ	Χ		Х	Х		Χ	Χ			Χ		Х	
Seabed scour protection (if required) area (acres)	1 (Monopile)			Χ	Χ		Χ			Х	Х		Χ	Χ			Χ		Х	
Seabed total permanent area (acres)	0.6 (Piled Jacket)			Χ	Χ		Χ	Χ		Х	Х		Χ	Χ			Χ		Х	
Scour protection (if required) volume (cubic yards)	1,721 (Piled Jacket)			Χ	Χ		Χ				Х		Χ	Χ			Χ		Х	
Pile-structure grout volume (cubic yards)	222 (Piled Jacket)			Χ							Х		Χ	Χ			Χ		Χ	
Piled Jacket Foundations for Substations																				
Number of legs per foundation	6		Χ	Χ	Χ		Χ	Χ			Х		Χ	Χ			Χ		X	
Number of piles per foundation (4 piles per corner)	16		Χ	Χ	Χ		Χ	Х			Х		Χ	Χ			Χ		Χ	
Separation of adjacent legs at seabed (feet)	230			Χ			Χ				Х		Χ	Χ			Χ			
Separation of adjacent legs at sea surface (feet)	230						Χ						Χ	Χ			Χ			
Height of platform above MLLW (feet)	131							Х						Χ				Х		
Jacket leg diameter (feet)	15			Χ			Χ	Х			Χ		Χ	Χ			Χ		Χ	
Pin pile outer diameter at seabed (feet)	8			Χ			Χ	Х			Χ		Χ	Χ			Χ		Χ	
Mud-mat area (square feet)	4,306			Χ			Χ	Х			Х		Χ	Χ			Χ		Χ	
Seabed structure area (acre)	<0.1			Х	X		X	Х		Χ	Х		Χ	X			Χ		X	

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Seabed scour protection (if required) area (acres)	0.2			Χ	Χ		Х			Χ	X		Χ	Χ			Χ		X	
Seabed total permanent area (acres)	0.6			Χ	Χ		Х	Χ		Χ	X		Χ	Χ			Χ		X	
Scour protection (if required) volume (cubic yards)	1,721			Χ	Χ		Χ				Χ		Χ	Χ			Χ		Χ	
Pile-structure grout volume (cubic yards)	222			Χ							Х		Χ	Χ			Х		Χ	
Embedment depth (below seabed) (feet)	230			Χ			Χ	Х		Χ	Χ		Χ	Χ			Χ			
Maximum hammer energy (kilojoule)	2,500		Χ	Χ	Χ		Χ				Х		Χ	Χ			Х		Х	
Maximum piling duration per foundation (days) <sup>1</sup>	15		Χ	Χ	Χ		Χ				Х		Χ	Χ			Х		Χ	
Indicative continuous piling duration per pile (hours) 1	4		Χ	Χ	Χ		Χ				X		Χ	Χ			Χ		Х	
ARRAY CABLES																				
Cable diameter (inches)	8			Χ				Χ			X	X	Χ	Χ	Χ		Χ		Х	
Estimated total length of cable (miles)	190	Х		Χ			Χ	Χ		Χ	Х	Х	Χ	Χ	Χ		Х		Х	
Typical voltage (kV)	66			Χ			Χ				Х	Х	Χ	Χ			Х			
Maximum voltage (kV)	170			Χ			Χ				Х	Х	Χ	Χ			Х			
Target burial depth (feet) (final burial depth based on CBRA)	4–6			Χ			Χ	Χ		Χ	Х	X	Χ	Χ	Χ		Х		Х	
Cable separation: typical (feet)	328			Χ			Χ				Х	X	Χ	Χ			Х			
Offshore Cable disturbance corridor width (feet)	82			Χ			Х	Х		Χ	X	Χ	Χ	Χ	Χ		Х		Χ	
Maximum Total Impacts for Array Cables																				
Full corridor width seabed disturbance (acres)	1,850 <sup>2</sup>			Χ			Χ	Χ		Χ	Х		Χ	Χ			Х		Х	
Boulder clearance: seabed disturbance (acres)	2,220 <sup>3</sup>			Χ			Χ	Χ		Χ	Х		Χ	Χ			Х		Х	
Sand wave clearance: seabed disturbance (acres)	220 <sup>3</sup>			Χ			Χ	Χ		Χ	Х		Χ	Χ			Х		Х	
Sand wave clearance: material volume (cubic yards)	588,580 <sup>4</sup>			Χ			Χ	Χ			Х		Χ	Χ			Х		Х	
Burial spoil: jetting/plowing/control flow excavation material volume (cubic yards)	2,354,000 5			Χ			Χ				Х		Χ	Χ			Х		Х	
Percent of cable requiring protection	10%			Χ			Χ				Х		Χ	Χ			Х		Х	
Cable protection area (acres) <sup>6</sup>	77			Χ			Χ	Χ		Χ	Х		Χ	Χ			Х		Х	
Cable protection volume (cubic yards)	341,000			Χ			Χ				Х		Χ	Χ			Х		Х	
Cable/pipe crossings: pre- and post-lay rock berm area (acres)	0			Χ			Χ			Χ	Χ		Χ	Χ			Х		Χ	
Cable/pipe crossings: pre- and post-lay rock berm volume (cubic yards)	0			Χ			Х				Χ		Χ	Χ			Χ		Χ	
SUBSTATION INTERCONNECTOR CABLE																				
Number of substation interconnector cables	2			Χ			Χ	Х			Χ	Χ	Χ	Χ	Χ		Х		Χ	
Estimated total length of cable (miles)	19	Χ		Χ			Χ	Х		Χ	Χ	Χ	Χ	Χ	Χ		Х		Χ	
Cable diameter (inches)	13			Χ			Χ	Х			Χ	Χ	Χ	Χ			Х			
Maximum voltage (kV)	275			Χ			Х				Х	X	Χ	Χ			Χ			

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Target burial depth (feet) (final burial depth dependent on CBRA and coordination with agencies)	4–6			(		X	Х			Х	Х	Χ	Χ	Х		X		Х	
Cable seabed disturbance width (feet)	82		)	(		Х	Χ		Χ	Х	Х	Χ	Χ	Χ		Χ		Х	
Maximum Total Impacts for Substation Interconnection Cables		,	•		•						,						•		
Total seabed disturbed: full corridor width (acres)	185 <sup>7</sup>			(		Х	Х		Χ	Х		Χ	Χ			Χ		Χ	
Seabed disturbed: boulder clearance (acres)	222 <sup>8</sup>			(		Х	Х		Χ	Χ		Χ	Χ			Χ		Х	
Seabed disturbed: sand wave clearance (acres)	2 8		)	(		Х	Χ		Χ	Х		Χ	Χ			Χ		Х	
Sand wave clearance volume (cubic yards)	58,860 <sup>9</sup>		)	(		Х	Χ			Х		Χ	Χ			Χ		Х	
Burial spoil: jetting/plowing/control flow excavation volume (cubic yards)	235,000 10		)	(		Х				Х		Χ	Χ			Χ		Х	
Cable protection area (acres) 11	8		)	(		Х	Χ		Χ	Х		Χ	Χ			Χ		Х	
Cable protection volume (cubic yards)	34,000			(		Х	Χ			Х		Χ	Χ			Χ		Х	
Percent of cable requiring protection	10%			(		Х				Х		Χ	Χ			Χ		Х	
Cable/pipe crossing- pre- and post-lay rock berm area (acres)	0			(		Х			Χ	Χ		Χ	Χ			Χ		Х	
Cable/pipe crossing- pre- and post-lay rock berm volume (cubic yards)	0		)	(		Х				Х		Χ	Χ			Χ		Х	
OFFSHORE EXPORT CABLE																			
Offshore export cable diameter (inches)	13			(			Х			Χ		Χ	Χ			Χ		Χ	
Typical export cable voltage (kV)	275		)	(		Х				Х		Χ	Χ			Χ			
Cable seabed disturbance width per cable (feet)	82		)	(		Х	Х		Χ	Х		Χ	Χ			Χ		Х	
Target burial depth (feet)	4–6		)	(		Х	Х		Χ	Х		Χ	Χ			Χ		Х	
Cable weight in air (kilogram per meter)	138		)	(		Х				Х		Χ				Χ		Х	
Cable weight in water (kilogram per meter)	90		)	(		Х				Х		Χ				Χ		Х	
Maximum Total Impacts for Offshore Export Cables																			
Oyster Creek																			
Number of cable sections per cable	4			(						Х		Χ	Χ			Χ			
Number of cable joints	3			(						Х		Χ	Χ			Χ			
Offshore cables	2		)	(		Х	Х			Χ		Χ	Χ			Х		Χ	
Length of offshore export cable route (miles)	72	Х	)	(		Х	Х		Χ	Χ		Χ	Χ	Χ	Χ	Χ		Χ	
Length of offshore export cable (miles) (2 cables within corridor)	143	Х	)			Х	Х			Х		Χ	Х	Х	Χ	Х		Х	
Full corridor width seabed disturbance (acres)	1,430 <sup>12</sup>		)			Х	Х		Χ	Χ		Χ	Χ			Х		Х	
Boulder clearance: seabed disturbance (acres)	1,710 <sup>13</sup>		)			Х	Х		Χ	Χ		Χ	Χ			Χ		Χ	
Sand wave clearance: seabed disturbance (acres)	17 <sup>13</sup>			(		Χ	Х		Χ	Χ		Χ	Χ			Χ		Χ	
Sand wave clearance: material volume (cubic yards)	451,240 <sup>14</sup>		)			Χ	Χ			Χ		Χ	Χ			Χ		Χ	

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Burial spoil: vertical injection material volume (cubic yards)	665,000 <sup>15</sup>			Χ			Х				Х		Χ	Χ			Х		Х	
Burial spoil: plowing/control flow excavation material volume (cubic yards)	1,805,000			Χ			Х				Χ		Χ	Χ			Χ		Χ	
Cable protection area (acres) <sup>16</sup>	70			Χ	Х		Х	Χ		X	Х		Χ	Χ			Х		Х	
Cable protection volume (cubic yards)	400,000			Χ	Х		Х	Χ			Х		Χ	Χ			Х		Х	
Percent of cable requiring protection	10%			Χ	Х		Х				Х		Χ	Χ			Х		Х	
Cable/pipe crossings: pre- and post-lay rock berm area (acres)	48			Χ			X			X	Х		Χ	Χ			X		Х	
Cable/pipe crossings: pre- and post-lay rock berm volume (cubic yards)	279,000			Χ			Х				Χ		Χ	Χ			Х		X	
BL England		ı	ı				,													
Number of cable sections per cable	3			Χ							Χ		Χ	Χ			Χ			
Number of cable joints	2			Χ							Х		Χ	Χ			Χ			
Offshore cables	1			Χ			Χ	Χ			Χ		Χ	Χ			Χ		Х	
Length of offshore export cable route (miles)	32	Х		Χ			Χ	Χ		Χ	Χ		Χ	Χ			Χ		Х	
Length of offshore export cable (miles) (1 cable within corridor)	32	Х		Χ			Χ	Χ			Χ		Χ	Χ			Χ		Х	
Full corridor width seabed disturbance (acres)	320 <sup>12</sup>			Χ			Χ	Χ		Χ	Χ		Χ	Χ			Χ		Х	
Boulder clearance: seabed disturbance (acres)	400 13			Χ			Χ	Χ		Χ	Χ		Χ	Χ			Χ		Х	
Sand wave clearance: seabed disturbance (acres)	4 <sup>13</sup>			Χ			Χ	Χ		Χ	Χ		Χ	Χ			Χ		Х	
Sand wave clearance: material volume (cubic yards)	100,060 14			Χ			Х	Χ			Х		Χ	Χ			Χ		Х	
Burial spoil: vertical injection material volume (cubic yards)	148,000 <sup>15</sup>			Χ			X				Х		Χ	Χ			Χ		Х	
Burial spoil: plowing/control flow excavation material volume (cubic yards)	400,000			Χ			X				X		Χ	Χ			Χ		Х	
Cable protection area (acres) <sup>16</sup>	16			Χ	Χ		Χ	Χ		Χ	Χ		Χ	Χ			Χ		Χ	
Cable protection volume (cubic yards)	87,000			Χ	Χ		Χ	Χ			Χ		Χ	Χ			Χ		Χ	
Percent of cable requiring protection	10%			Χ	Χ		Χ				Χ		Χ	Χ			Χ		Х	
Cable/pipe crossings: pre- and post-lay rock berm area (acres)	12.6			Χ			Χ			Χ	Χ		Χ	Χ			Χ		Х	
Cable/pipe crossings: pre- and post-lay rock berm volume (cubic yards)	75,000			Χ			Χ				Χ		Χ	Χ			Χ		Χ	
WIND TURBINE VESSEL TRIPS																				
Wind Turbine Foundation Installation – Maximum Number of Simultaneous V	Vessels																			
Scour Protection Vessel	1	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Х		Χ	X	Χ	
Installation Vessel	4	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Support Vessels	16	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Transport / Feeder Vessels (including tugs)	40	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Х		Χ	X	Χ	
- of which are anchored	2	Х	X	Χ	Χ		X				X		Χ	Χ	X		Χ	X	X	

		Quality	ts	Benthic Resources	sp	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	ther Uses (Marine als, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	Scenic and Visual ources	3.21 Water Quality	3.22 Wetlands
Design Parameter	Maximum Design Parameters	3.4 Air	3.5 Bats	3.6 Be	3.7 Birds	3.8 Co	3.9 Co For-Hi	3.10 C	3.11 D Emplo	3.12 E	3.13 Fi Essen	3.14 L	3.15 M	3.16 N Traffic	3.17 Other Minerals, M	3.18 R	3.19 S	3.20 S Resou	3.21 W	3.22 W
Wind Turbine Foundation Installation – Maximum Number of Trips per Vesse	el Type																			
Scour Protection Vessel	50	Х	Х	Х	Х		Х				Х		Χ	Х	Χ		Х	Х	Х	
Installation Vessel	99	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Support Vessels	396	Х	Х	Х	Х		Х				Х		Χ	Χ	Х	Х	Х	Х	Х	
Transport / Feeder Vessels (including tugs)	396	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ	Χ	Χ	Х	Х	
- of which are anchored	198	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Structure Installation – Maximum Number of Simultaneous Vessels		•	'																	
Installation Vessels	2	Х	Χ	Χ	Х		Χ				Χ		Χ	Χ	Χ		Х	Х	Х	
Transport / Feeder Vessels	12	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Х	Х	Х	
Other Support Vessels	24	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Х	Х	Х	
Structure Installation – Maximum Number of Trips per Vessel Type			•																	
Installation Vessels	99	Х	Χ	Χ	Χ		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Transport / Feeder Vessels	99	Х	Χ	Χ	Х		Х				Х		Χ	Χ	Χ		Х	Х	Х	
Other Support Vessels	594	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ	Χ	Х	Х	Х	
VESSELS REQUIRED FOR SUBSTATION INSTALLATION																				
Maximum Design Parameters																				
Primary Installation Vessels	2	Х	Χ	Х	Х		Χ				Х		Χ	Χ	Χ		Х		Х	
Support Vessels	11	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ		Х	
Transport Vessels	4	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ		Х	
Maximum Duration (days)	67	Х	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ		Х	
Maximum Return Trips per Vessel Type																				
Primary Installation Vessels	12	Χ	Χ	Χ	Χ		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Support Vessels	72	X	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Х	Х	
Transport Vessels	24	X	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Х	Х	
VESSELS REQUIRED FOR ARRAY CABLE INSTALLATION																				
Maximum Number of Simultaneous Vessels																				
Main Laying Vessels	3	Х	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	X	Х	
Main Burial Vessels	3	Χ	Χ	Χ	Х		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Support Vessels	12	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Х	Χ	Χ	
Maximum Number of Return Trips per Vessel Type																				
Main Laying Vessels	99	Χ	Χ	Χ	Х		Χ				Χ		Χ	Χ	Χ		Х	Χ	Χ	
Main Burial Vessels	99	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Χ	Χ	

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure		3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Support Vessels	594	Χ	Χ	Χ	Х		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Duration per cable section (days)	3.5	Х	Χ	Х	Х		Χ				Χ		Χ	Χ	Χ		X	Х	Х	
Total Duration (months)	12	Х	Χ	Χ	Х		Х				Х		Χ	Χ	Χ		Х	Х	Х	
VESSELS REQUIRED FOR SUBSTATION INTERCONNECTION CABLE INSTA	ALLATION																			
Maximum Number of Simultaneous Vessels					ı	ı			ı				ı							
Main Laying Vessels		Х	Χ	Х	Х		Χ				Χ		Χ	Χ	Χ		Х	Х	Χ	
Main Burial Vessels	Included In numbers for	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Support Vessels	export and array cables	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Duration: per cable (days)		Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Duration: total (months)		Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	X	Χ	
Maximum Number of Return Trips per Vessel Type																				
Main Laying Vessels	8	Χ	Χ	Χ	Χ		Х				Χ		Χ	Χ	Χ		Χ	Х	X	
Main Burial Vessels	8	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Support Vessels	12	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ		Χ	Х	Χ	
Duration: per cable (days)	20	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Duration: total (months)	1	Χ	Χ	Χ	Χ		Χ				Χ		Χ		Χ		Χ	Х	Χ	
VESSELS REQUIRED FOR OFFSHORE EXPORT CABLE INSTALLATION																				
Maximum Design Parameters																				
Main Cable Laying Vessels	3	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Χ	X	
Main Cable Jointing Vessels	3	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Χ	X	
Main Cable Burial Vessels	3	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Χ	X	
Support Vessels	15	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Χ	X	
Maximum Number of Return Trips per Vessel Type																				
Main Cable Laying Vessels	48	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	Χ	X	
Main Cable Jointing Vessels	36	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	X	X	
Main Cable Burial Vessels	48	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	X	X	
Support Vessels	72	Χ	Χ	Χ	Χ		X				Χ		Χ	Χ	Χ		Χ	X	X	
Duration per cable section (days)	59	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Χ		Χ	Х	Х	
Typical Duration (months)	6	Χ	Χ	Χ	Х		Х				Х		Χ	Χ	Χ		Χ	Х	Х	
TOTAL PROJECT OFFSHORE SURVEYS OF FOUNDATIONS, BATHYMETRY	, SCOUR PROTECTION	AND C	ABLE E	BURIAL	L															
All Offshore Facilities: Seabed Surveys: for Bathymetry, Cable Burial Depth, Scour during Project lifetime (events)	38		Х	Х	Х		Х				Х		Х	Х			Х	Х	Х	

	Maximum Design	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Design Parameter	Parameters	<u>හ</u>	က်	က်	<b>ෆ</b>	ю́	က် <u>π</u>	ю́	რ Ш	<u>ග</u>	ю Ш	સ <u>⊢</u>	<b>ෆ</b>	რ ⊢	რ ≥	Ŕ	<u>හ</u>	ന് ഥ	<b>ෆ</b>	<u>හ</u>
OFFSHORE FOUNDATION OPERATION AND MAINTENANCE ACTIVITIES																				
Wind Turbine Foundations	347	1		v									V		1					
Repainting (events)				X			X						X	X			X	X	X	
Cleaning (guano removal) (events)  Access Ladder Replacement (events)	17,325 693			X			X						X	X			X	X	^	
Anode Replacement (events)	693			X			X				Х		X	X			X	X		
J-tube Replacement (events)	198			X			X				X		X	X			X	X		
Concrete Crack Repairs (events)	99			X			X				^		X	X			X	X	Х	
Offshore Substations																		Λ		
Repainting (events)	3			Х			Х				Х		Χ	Х			Х	Х	Х	
Cleaning (guano removal) (events)	525			X			X				X		X	X			X	X	X	
Access Ladder Replacement (events)	21			X			X				Х		Χ	X			Х	Х		
Anode Replacement (events)	21			Х			Х				Х		Χ	Х			Х	Х		-
J-tube Replacement (events)	6			Х			Χ				Х		Χ	Х			Х	Х		
TOTAL WTG OPERATION AND MAINTENANCE ACTIVITIES			L															l l		
WTGs: Major Component Replacement (events)	966			Х			Χ				Х		Χ	Х			Х	Х	Х	
TOTAL PROJECT OSS OPERATION AND MAINTENANCE ACTIVITIES												<u> </u>								
OSS: Major Faults/Component Replacements (events)	6			Х			Χ				Х		Χ	Χ			Х	Х	Х	
TOTAL PROJECT OFFSHORE CABLE OPERATION AND MAINTENANCE AC	TIVITIES																			
Array Cable																				
Remedial Burial for the life of the Project (miles)	13			Χ			Χ	Χ			Χ		Χ	Χ			Χ	Х	Χ	
Jetting Remedial Burial: Length per event (miles)	1.24			Χ			Χ	Χ			Χ		Χ	Χ			Χ		Χ	
Jetting Remedial Burial: Width per event (feet)	328			Χ			Χ	Χ			Χ		Χ	Χ			Х		Χ	
Jetting Remedial Burial: Seabed disturbance area (acres per event)	49.4			Χ			Χ	Χ			Χ		Χ	Χ			Χ		Χ	
Cable Faults (number of events)	6			Χ			Χ				Χ		Χ	Χ			Χ		Χ	
Cable Faults: Seabed disturbance area per event (acres)	4.9			Χ			Χ	Χ			Х		Χ	Χ			Х		Χ	
Cable Faults: Rock berm area per event (acres)	1.5			Χ			Χ				X		Χ	Χ			Х		Χ	
Cable Faults: Rock berm volume per event (cubic yards)	8,800			Χ			Χ				Х		Χ	Х			Х		Χ	
Substation Interconnector Cables	T	, ,	1	1								ı						1	1	
Remedial Burial for the life of the Project (miles)	1.9			Χ			Χ	Х			Χ		Χ	Χ			Х		Χ	
Jetting Remedial Burial: Length per event (miles)	1.2			Χ			Χ	Χ			Χ		Χ	Χ			Х		Х	
Jetting Remedial Burial: Width per event (feet)	328			Χ			X	Χ			X		Χ	Χ			Χ		Χ	

		Quality		thic Resources	V	stal Habitat and Fauna	Commercial Fisheries and r-Hire Recreational Fishing	Itural Resources	3.11 Demographics, Employment, and Economics	2 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	nd Use and Coastal acture	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	ner Uses (Marine s, Military Use, Aviation)	3.18 Recreation and Tourism	Sea Turtles	Scenic and Visual ources	ter Quality	Wetlands
Design Parameter	Maximum Design Parameters	3.4 Air (	3.5 Bats	3.6 Benthic	3.7 Birds	3.8 Coastal	3.9 Con For-Hire	3.10 Cultural	3.11 Dei Employ	3.12 En	3.13 Fin Essenti	3.14 Land Use Infrastructure	3.15 Ma	3.16 Nav Fraffic	3.17 Other Minerals, N	3.18 Re	3.19 Sea	3.20 Sce Resour	3.21 Water	3.22 We
Jetting Remedial Burial: Seabed disturbance area (acres per event)	49.4	(*)	( )	X	(1)	(*)	X	X	(7 =	(1)	X	· · ·	X	X	· , _	( )	X	(7 _	X	- ( )
Cable Faults (number of events)	2			X			X				X		X	X			X		X	
Cable Faults: Seabed disturbance area per event (acres)	4.9			X			X	Х			X		X	X			X		X	
Cable Faults: Rock berm area per event (acres)	1.5			X			X				X		X	X			X		X	
Cable Faults: Rock berm volume per event (cubic yards)	8,800			X			X				X		X	X			X		X	
Offshore Export Cables	0,000																			
Jetting Remedial Burial: Length per event (miles)	1.24			Х			Х	Х			Х		Х	Х			Х	ΙΙΙ	Х	
Jetting Remedial Burial: Width per event (feet)	328			X			X	X			X		X	X			X		X	
Jetting Remedial Burial: Seabed disturbance area (acres per event)	49.4			X			X	X			X		X	X			X		X	
Cable Faults: Seabed disturbance area per event (acres)	4.9			X			X	X			X		X	X			X		X	
Cable Faults: Rock berm area per event (acres)	1.5			X			X				X		X	X			X		X	-
Cable Faults: Rock berm volume per event (cubic yards)	8,800			X			X				Х		Χ	X			X		X	
Oyster Creek Export Cables	2,000																			
Remedial Burial for the life of the Project (miles)	3.1			Χ			Х	Х			Χ		Χ	Χ			Х		Χ	
Cable Faults (number of events)	13			Χ			Х				Х		Χ	Χ			Х		Х	
BL England Export Cables						1			L			l.						1		
Remedial Burial for the life of the Project (miles)	1.2			Χ			Х	Х			Χ		Χ	Χ			Χ		Х	
Cable Faults (number of events)	3			Χ			Х				Χ		Χ	Χ			Х		Х	
OFFSHORE OPERATION AND MAINTENANCE VESSEL SUMMARY OF MAXI	MUM ANNUAL VISITS																			
Crew transfer vessels, or service operation vessels	2,278	Χ	Χ	Χ	Х		Х				Χ		Χ	Χ	Х	Χ	Χ	Х	Х	
Jack-Up Vessels	102	Х	Х	Х	Х		Х				Х		Χ	Х	Х	Х	Х	Х	Х	
Crew Vessels	908	Χ	Χ	Χ	Χ		Χ				Χ		Χ	Χ	Χ	Χ	Χ	Х	Х	
Supply Vessels	104	Χ	Χ	Χ	Х		Х				Х		Χ	Χ	Х	Χ	Х	Х	Χ	
OPERATIONS JACK-UP AND ANCHORED VESSEL PARAMETERS																				
Number of jack-up vessel legs	6			Χ			Х				Χ		Χ	Χ			Χ		Χ	
Area of each leg base at the seabed (square feet)	1,830			Χ			Х				Χ		Χ	Χ			Χ		Χ	
Anchored vessel: anchor dimensions (feet)	32.8 x 32.8			Χ			Х				Χ		Χ	Χ			Χ		Χ	
Anchored vessel: number of anchors per vessel	8			Х			Х				Х		Χ	Χ			Х		Х	
ONSHORE EXPORT CABLE PARAMETERS																				
Type of cable	XLPE, FF Copper, and Aluminum											Х								
Diameter of cable (inches)	8					Х		Х				Χ								

				Resources		tat and Fauna	Fisheries and tional Fishing	Resources	ics, d Economics	ıtal Justice	ertebrates, and abitat	nd Coastal	ımals	and Vessel	er Uses (Marine Military Use, Aviation)	and Tourism		Visual	ty	
Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resc	3.7 Birds	3.8 Coastal Habitat	3.9 Commercial Fishe For-Hire Recreational	3.10 Cultural	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates Essential Fish Habitat	3.14 Land Use and Infrastructure	3.15 Marine Mammals	3.16 Navigation a	3.17 Other Uses Minerals, Military	3.18 Recreation	3.19 Sea Turtles	3.20 Scenic and Resources	3.21 Water Quality	3.22 Wetlands
Diameter of cable ducts (inches)	13					Х		Х				Χ								igsquare
Maximum voltage (kV)	275					Х						Х								ullet
Target burial depth (feet)	4 17					Х		Х				Х								
Oyster Creek Construction Areas and Volumes	1							,			_									
Length of onshore cable route (miles)	5.3	X	Χ		Χ	Χ		Χ		Χ		Х						Х	Χ	Х
Cable trenches	2					Х		Χ				Х						X	Χ	Х
Total onshore cables	6		Χ		Χ	Х		Х				Х						Х	Χ	Х
Corridor width: permanent (feet)	30		Χ		Χ	Х		Х				Х						Х	Χ	Х
Corridor width: temporary and permanent used for construction (feet)	50		Χ		Χ	Χ		Χ				X						Х	Χ	X
Corridor area: permanent (acres)	9		Χ		Χ	Χ		Χ				X			Х	Χ		X	Χ	X
Corridor area: temporary and permanent used for construction (acres)	32	Χ	Χ		Χ	Χ		Χ		Χ		X			Х	Χ		X	Χ	X
Number of joint bays and splice vaults/grounding link boxes	34					Х		Χ				Х						X	Χ	Х
Joint bays total area (acres)	2		Χ		Χ	Х		Х				Х							Χ	Х
Joint bays spoil volume per pit (cubic yards)	3,000					Х						Х							Χ	Х
Joint bays spoil total volume (cubic yards)	97,200					Х						Х							Χ	Х
Link bays total area (acres)	0.03		Χ		Χ	Χ		Χ				Х							Χ	Х
Link bays spoil volume per pit (cubic yards)	9					Χ						Х							Χ	Х
Link bays spoil total volume (cubic yards)	311					Χ						Х							Χ	Х
Utility bridge length (feet)	200					Χ		Χ				Х						Х		1
Utility bridge height and width (feet)	10					Χ		Χ				Х						Х		
BL England Construction Areas and Volumes				•																
Length of onshore cable route (miles) 18	8	Х	Χ		Χ	Χ		Χ	Х	Χ		Х			Х	Χ			Χ	Х
Cable trenches	1					Χ		Χ	Х			Х			Х	Χ		Х	Χ	Х
Total onshore cables	3		Χ		Χ	Χ		Χ				Х						Х	Χ	Х
Corridor width: permanent (feet)	30		Χ		Χ	Χ		Χ				Х						Х	Χ	Х
Corridor width: temporary and permanent used for construction (feet)	50		Χ		Χ	Χ		Χ	Х	Χ		Х			Х	Χ		Х	Χ	Х
Corridor area: permanent (acres) 18	29		Χ		Х	Х		Х		Х		Х							Χ	Х
Corridor area: temporary and permanent used for construction (acres) 18	48	Х	Χ		Х	Х		Х	Х	Х		Х			Х	Χ			Χ	Х
Number of joint bays and splice vaults/grounding link boxes 18	26					Х						Х						Х	Χ	Х
Joint bays total area (acres) 18	1.5		Χ		Χ	Х		Х				Χ							Χ	Х
Joint bays spoil volume per pit (cubic yards)	3,000					Х						Χ							Χ	Х
Joint bays spoil total volume (cubic yards) 18	19,000					Х						Χ							Χ	Х

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Link bays total area (acres) 18	0.02		Χ		Χ	Χ		Х				Χ							Х	Х
Link bays spoil volume per pit (cubic yards)	9					Χ						Χ							Х	Х
Link bays spoil total volume (cubic yards)	55					Χ						Χ							Х	Х
ONSHORE SUBSTATION PARAMETERS																				
Oyster Creek		I I			1		I					ı						ı	1	
Permanent site area (acres)	31.5	Х	Χ		Χ	Χ		Х	Х	Х		Х			Χ	Χ		Х	Х	Х
Temporary construction workspace (acres)	2	Х	Χ		Χ	Χ		Х	Х	Х		Χ			Χ	Χ		Х	Х	Х
Main building length (feet)	1,017		Χ		Χ	Χ		Х		Х		Х						Х		
Main building width (feet)	492		Χ		Χ	Χ		Х		Χ		Χ						Х		
Main building area (acres)	11.5		Χ		Χ	Χ		Х		Х		Χ							Χ	Χ
Main building height (feet)	82		Χ		Χ			Х		Х		Х						Х		
Maximum secondary building(s) length (feet)	105		Χ		Χ	Χ		Х		Х		Х						Х		
Maximum secondary building(s) width (feet)	105		Χ		Χ	Х		Х		Х		Х						Х		
Secondary building(s) height (feet)	33		Χ		Χ			Х		Χ		Х						Х		
Fire-wall height (feet)	82		Χ		Χ			Χ		Χ		Χ								
Number of lightning masts	35		Χ		Χ	Χ		Χ		Χ		Х						Х		
Lightning protection height (feet)	98		Χ		Χ			Χ		Χ		Х						Х		
Power mast infrastructure height (feet)	115		Χ		Χ			Χ		Χ		Х						Х		
Transformer height (feet) 19	46		Χ		Χ			Χ		Χ		Х						Х		
High-voltage reactor height (feet) 19	46		Χ		Χ			Χ		Χ		Х						Х		
SVC/Statcom height (feet) 19	39		Χ		Χ			Χ		Χ		Х						Х		
Harmonic filter height (feet) 19	49		Χ		Χ			Х		Χ		Х						X		
Bus duct height (feet) 19	49		Χ		Χ			Χ		Χ		Х						X		
Other auxiliary equipment height (feet) 19	33		Χ		Χ			Χ		Χ		Х						X		
BL England																				
Permanent site area (acres)	13	Х	Χ		Χ	Χ		Χ	X	Χ		Х			Χ	Χ			Χ	X
Temporary construction workspace (acres)	3	Х	Χ		Χ	Χ		Х	Χ	Χ		Х			Χ	Χ			Χ	Χ
Main building length (feet)	656		Χ		Χ	Χ		Х		Χ		Х						Х		
Main building width (feet)	525		Χ		Χ	Χ		Χ		Χ		Χ						Χ		
Main building area (acres)	7.9		Χ		Χ	Χ		Χ		Χ		Χ							Χ	Χ
Main building height (feet)	82		Χ		Χ			Χ		Χ		Χ						Χ		
Maximum secondary building(s) length (feet)	154		Χ		Χ	Χ		Χ		Χ		Х						X		

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics		3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Maximum secondary building(s) width (feet)	105		X		X	Х		X		X		Х						Х		
Secondary building(s) height (feet)	33		X		X			X		X		X						Х		
Fire-wall height (feet)	82		X		X			X		X		X							$\longrightarrow$	
Number of lightning masts	25		X		X	Х		X		X		X						X	$\longrightarrow$	
Lightning protection height (feet)	98		X		X			X		X		X						X		
Power mast infrastructure height (feet)	115 46		X		X			X		X		X						X		
Transformer height (feet) 19	46		X		X			X		X		X						X	$\rightarrow$	
High-voltage reactor height (feet) <sup>19</sup> SVC/Statcom height (feet) <sup>19</sup>	39		X		X			X		X		X						X	-+	
Harmonic filter height (feet) 19	49		X		X			X		X		X						X	$\rightarrow$	
Bus duct height (feet) 19	49		X		X			X		X		X						X	$\rightarrow$	
Other auxiliary equipment height (feet) 19	35		X		X			X		X		X						X		
UNDERGROUND AND OVERHEAD TRANSMISSION LINE PARAMETERS			71									,,								
Underground Option																				
Maximum trench depth (feet)	10.25		Χ		Х	Х		Х	Х	Х		Χ				Χ			Х	Х
Average trench width (feet)	4.25		Χ		Х	Χ		Х	Х	Χ		Χ				Χ		Х	Х	Χ
Maximum temporary work space, offset from centerline on each side (feet)	30		Χ		Χ	Х		Х	Х	Χ		Χ				Χ		Х	Χ	Χ
Oyster Creek																				
Maximum length of onshore interconnection cable (miles)	0.5	Χ	Χ		Χ	Χ		Χ	Х	Χ		Χ			Χ	Χ			Χ	Χ
Number of splice vaults/grounding link boxes associated with interconnection cable	2		Х		Х			Х		X		Х				Х		Х		Х
Number of poles	1		Χ		Χ			Χ		Χ		Χ				Χ		X		
Maximum pole height (feet)	117		Χ		Χ			Х		Χ		Χ				Χ		X		
BL England																				
Maximum length of onshore interconnection cable (miles)	0.5	Χ	Χ		Χ	Х		Χ	Х	Χ		Χ			Χ	Χ			Χ	Χ
Number of splice vaults/grounding link boxes associated with interconnection cable	2		Х		Х			Х		Χ		Х				Х		Х		Х
Number of poles	1		Χ		Χ			Χ		Χ		Χ				Χ		Χ		
Maximum pole height (feet)	117		Χ		Х			X		Х		Х				Х		Х		
Overhead Option																				
Oyster Creek				ı				ı				ı								
Maximum Length of onshore interconnection cable route (miles)	0.5	X	Χ		Χ	Χ		X	X	Χ		X			X	X			X	Χ

Design Parameter	Maximum Design Parameters	3.4 Air Quality	3.5 Bats	3.6 Benthic Resources	3.7 Birds	3.8 Coastal Habitat and Fauna	3.9 Commercial Fisheries and For-Hire Recreational Fishing	3.10 Cultural Resources	3.11 Demographics, Employment, and Economics	3.12 Environmental Justice	3.13 Finfish, Invertebrates, and Essential Fish Habitat	3.14 Land Use and Coastal Infrastructure	3.15 Marine Mammals	3.16 Navigation and Vessel Traffic	3.17 Other Uses (Marine Minerals, Military Use, Aviation)	3.18 Recreation and Tourism	3.19 Sea Turtles	3.20 Scenic and Visual Resources	3.21 Water Quality	3.22 Wetlands
Number of poles	6		Χ		Х	Х		Х		Х		Х						Х	Х	Х
Maximum pole height (feet)	115		Χ		Х			Х		Х		Х				Χ		Х		
BL England					Π	1	1	Π	1		1							I	П	
Maximum Length of onshore interconnection cable route (miles)	0.5	Χ	Χ		Х	Х		Х	Χ	Х		Х			Х	Χ			Х	Х
Number of poles	6		Χ		Х	Х		Х		Х		Х						Х	Х	Χ
Maximum pole height (feet)	115		Х		X			Х		Х		Х				Х		Х		
LANDFALL PARAMETERS					1	1	1	1			,									
Landfall type	Open cut or trenchless technology			Χ		Х			Х	Χ		Х			Х	Χ		Х	Х	Х
HDD noise (decibels) <sup>20</sup>	120		Χ		Χ	Χ			Х	Χ		X				Χ				
Number of personnel	60		Χ		Χ	Χ			Х	Χ		Χ							Χ	
Daily vehicle movements (non-HGV)	10	Χ	Χ		Χ	Χ				Χ		Χ						Χ		
Daily vehicle movements (HGV)	5	Χ	Χ		Χ	Х				Χ		X						Х		
Inadvertent return contingency vehicles	4		Χ		Х	Х				Χ		Χ								
HDD exit pit depth (feet)	15					Х		Х				Χ								
HDD exit pit (acres)	0.4 (164 feet x 98 feet)					Х		Х				Х							Х	Х
HDD onshore workspace (acres)	15		Χ		Х	Х		Х				Χ							Х	Χ
TJB depth (feet)	20					Х		Х				Χ						Χ		
TJB area (acres)	0.06 (33 feet x 82 feet)					Х		Х				Х							Х	Х
TJB workspace (acres)	0.4 (131 feet x 131 feet)		Χ		Х	Х		Х				Х							Х	Χ
Oyster Creek																				
Number of TJBs	8					Х		Х				Χ						Χ	Х	Χ
Landfall width (feet)	262					Х		Х				Х						Х	Х	Х
BL England																				
Number of TJBs	3					Х	Х	Х				Х						Х	Х	Х
Landfall width (feet)	131					Х	Х	Х				Х						Х	Х	Х

<sup>&</sup>lt;sup>1</sup> The 15 days is inclusive of activities (i.e., mobilization, clearance times, demobilization) and not just pile driving. The indicative piling duration per pile is 4 hours. The maximum active piling duration per foundation would be up to 64 hours (16 piles per foundation x 4 hours per pile) spread over up to 15 days.

<sup>2</sup> Assumes 82-foot-wide corridor disturbed.

<sup>3</sup> Assumes 98-foot-wide corridor and 100% of route affected.

<sup>4</sup> Assumes 98-foot-wide corridor, 17-foot average height, and 100% of route affected.

<sup>5</sup> Assumes 95% with shallow burial depth (4 to 6 feet) and 5% with deep burial (33 feet).

<sup>6</sup> Could be rock, mattress, frond mattress, rock bags, or seabed spacers as described in Section 2.1.2.2.3, Offshore and Nearshore Activities and Facilities, of the Final EIS.

Assumes 82-foot-wide corridor disturbed.
 Assumes 98-foot-wide corridor and 1% of route affected.

- 11 Could be rock, mattress, frond mattress, rock bags, or seabed spacers as described in Section 2.1.2.2.3, Offshore and Nearshore Activities and Facilities, of the Final EIS.
- <sup>12</sup> Assumes 82-foot-wide corridor disturbed.
- <sup>13</sup> Assumes 98-foot-wide corridor and 1% of route affected.
- <sup>14</sup> Assumes 98-foot-wide corridor, 17-foot average height, and 1% of route affected.
- <sup>15</sup> Assumes 95% with shallow burial depth (4–6 feet) and 5% with deep burial (33 feet).
- <sup>16</sup> Could be rock, mattress, frond mattress, rock bags, or seabed spacers as described in Section 2.1.2.2.3, Offshore and Nearshore Activities and Facilities, of the Final EIS.
- <sup>17</sup> Burial depth is target burial rather than maximum burial depth.
- 18 Increases reflected for identified parameters are related to removal of the Great Egg Harbor Bay inshore route, with a subsequent use of West Avenue for the eastern two landfall options.
- <sup>19</sup> Where located in the open.
- <sup>20</sup> Depends on rig spread to be used, phase of drilling, ground conditions, ancillary equipment, etc.
- FF = foundation fieldbus; HGV = heavy goods vehicle; Statcom = statis synchronous compensator; SVC = static VAR compensator; XLPE = cross-linked polyethylene

<sup>&</sup>lt;sup>9</sup> Assumes 98-foot-wide corridor, 17-foot average height, and 1% of route affected. <sup>10</sup> Assumes 95% with shallow burial depth (4 to 6 feet) and 5% with deep burial (33 feet).