

## Appendix B. List of Preparers and Reviewers, References Cited, and Glossary

### B.1. List of Preparers and Reviewers

**Table B-1 Bureau of Ocean Energy Management Contributors**

| <b>Name</b>   | <b>Role/Resource Area</b>  |
|---|--|
| <b>National Environmental Policy Act (NEPA) Coordinator</b> |  |
| Landers, Lisa   | Environmental Protection Specialist  |
| <b>Resource Scientists and Contributors</b>                 |  |
| Ajilore, Ololade (Lola)                                     | Navigation and Vessel Traffic  |
| Baker, Arianna  | Navigation and Vessel Traffic  |
| Bigger, David   | Birds; Bats; Coastal Habitat and Fauna   |
| Boatman, Mary   | Other Uses   |
| Brune, Genevieve  | Land Use and Coastal Infrastructure  |
| Bucatari, Jennifer  | Other Uses – Marine Minerals   |
| Chaiken, Emma   | Demographics, Employment, and Economics; Recreation and Tourism; Commercial Fisheries and For-Hire Recreational Fishing  |
| Cody, Mary  | Marine Mammals; Sea Turtles  |
| Conrad, Alexander   | Marine Mammals; Sea Turtles  |
| Dobbs, Kerby  | Other Uses – Marine Minerals   |
| Draher, Jennifer  | Water Quality  |
| Fulling, Gregory  | Marine Mammals; Sea Turtles  |
| Heinze, Martin  | Demographics, Employment, and Economics  |
| Hesse, Jeffrey T.   | Other Uses   |
| Horrell, Christopher  | Cultural Resources   |
| Howson, Ursula  | Benthic Resources; Coastal Habitat and Fauna; Commercial Fisheries and For-Hire Recreational Fishing; Finfish, Invertebrates, and Essential Fish Habitat; Other Uses; Recreation and Tourism; Wetlands |
| Jensen, Mark  | Demographics, Employment, and Economics  |
| Renick, Hillary   | Tribal Liaison   |
| McCarty, John   | Visual Resources; Recreation and Tourism   |
| McCoy, Angel  | Meteorologist, Technical Design Elements   |
| Miller, Jennifer  | Other Uses   |
| Moshier, Marissa  | Cultural Resources   |
| Schnitzer, Laura (LK)                                       | Cultural Resources   |
| Shanahan, Amy   | Cultural Resources   |
| Slayton, Ian  | Air Quality  |
| Stokely, Sarah  | Cultural Resources   |
| Waskes, Will  | Project Coordinator  |
| Wolf, Jacob   | Air Quality  |

**Table B-2 Reviewers**

| <b>Name</b>        | <b>Title</b>   | <b>Agency</b>                                       |
|--------------------|--|---|
| Brown, William Y.  | Chief Environmental Officer  | BOEM  |
| Baker, Karen       | Chief, Office of Renewable Energy  | BOEM  |
| Morin, Michelle    | Chief, Environment Branch for Renewable Energy   | BOEM  |
| Stromberg, Jessica | Acting Chief, Environment Branch for Renewable Energy  | BOEM  |
| Ottman, Noel       | Solicitor  | DOI   |
| Vorkoper, Stephen  | Solicitor  | DOI   |
| Heckman, Andrea    | Lead Environmental Protection Specialist   | BSEE  |
| Sample, Steven     | Executive Director, DOD Siting Clearinghouse   | DOD   |
| Austin, Mark       | Strategic Programs, Environmental Review Team Lead   | USEPA Region 2                                      |
| Nolan, Katie       | Team Leader for Renewable Energy & Offshore Wind, Team Leader of Redevelopment & Restoration | NJDEP   |
| McLean, Laura      | Ocean and Lakes Policy Analyst   | NYSDOS  |
| Krueger, Mary      | Energy Specialist  | NPS Interior Region 1, North Atlantic - Appalachian |
| Tuxbury, Susan     | Wind Program Coordinator, GARFO Habitat and Ecosystems Division                              | NMFS  |
| Crocker, Julie     | Endangered Fish Branch Chief, GARFO Protected Resources Division                             | NMFS  |
| Keith Hanson       | Marine Habitat Resource Specialist, GARFO Habitat and Ecosystem Services Division            | NMFS  |
| Anthony, Brian     | Biologist  | USACE Philadelphia District                         |
| Creelman, Matthew  | Marine Transportation Specialist   | USCG District 5                                     |
| Ciappi, Michael    | Senior Fish and Wildlife Biologist   | USFWS   |

DOI = Department of the Interior; GARFO = Greater Atlantic Regional Fisheries Office; NPS = National Park Service

**Table B-3 Consultants**

| <b>Name</b>       | <b>Company</b> | <b>Role/Resource Area</b>   |
|-------------------|----------------|---|
| Baer, Sarah       | ICF            | Demographics, Employment, and Economics; Environmental Justice          |
| Byram, Saadia     | ICF            | Editor  |
| Copeland, Tanya   | ICF            | Project Manager   |
| Diller, Elizabeth | ICF            | Project Director  |
| Ernst, David      | ICF            | Air Quality/Climate   |
| Gleaton, Soniya   | ICF            | Comment Processing  |
| Johnson, David    | ICF            | Bats; Birds; Coastal Habitat; Water Quality; Wetlands                   |
| Jost, Rebecca     | ICF            | Other Uses; Recreation and Tourism; Land Use and Coastal Infrastructure |
| Lentz, Corey      | ICF            | Cultural Resources and Section 106 Support                              |
| Mendoza, Tiffany  | ICF            | Public Involvement  |

| Name                | Company                  | Role/Resource Area  |
|---------------------|--------------------------|---|
| Munaretto, Claire   | ICF                      | Demographics, Employment, and Economics;<br>Environmental Justice     |
| Paulson, Merlyn     | ICF                      | Scenic and Visual Resources   |
| Read, Brent         | ICF                      | Geographic Information Systems  |
| Schanel, Pam        | ICF                      | Public Involvement  |
| Tavel, January      | ICF                      | Cultural Resources and Section 106 Lead                               |
| Valley, Nathalie    | ICF                      | Navigation and Vessel Traffic   |
| Wheaton, Jenna      | ICF                      | Section 106 Support; Comment Processing                               |
| Winslow, Anne       | ICF                      | Deputy Project Manager  |
| Latham, Pam         | RPI                      | Benthic Resources; Finfish, Invertebrates, and Essential Fish Habitat |
| Butwin, Matt        | Prospect Hill Consulting | Commercial Fisheries and For-Hire Recreational Fishing                |
| Baigas, Phil        | WSP                      | Sea Turtles   |
| Mathies, Noelle     | WSP                      | Marine Mammals  |
| Zottenberg, Katelyn | WSP                      | Marine Mammals  |

QA/QC = quality assurance/quality control; RPI = Research Planning, Inc.

## B.2. References Cited

### B.2.1 Chapter 1, Introduction

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## **B.2.2 Chapter 2, Alternatives Including the Proposed Action**

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## **B.2.3 Chapter 3, Affected Environment and Environmental Consequences**

### **B.2.3.1 Section 3.1, Impact-Producing Factors**

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### **B.2.3.2 Section 3.2, Mitigation Identified for Analysis in the Environmental Impact Statement**

None.

### **B.2.3.3. Section 3.3, Definition of Impact Levels**

None.

### **B.2.3.4. Section 3.4, Air Quality**

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### B.3. Glossary

| Term                                  | Definition  |
|---------------------------------------|---|
| affected environment                  | Environment as it exists today that could be potentially affected by the proposed Project   |
| algal blooms                          | Rapid growth of the population of algae, also known as algae bloom  |
| allision                              | A moving ship running into a stationary ship  |
| anthropogenic                         | Generated by human activity   |
| archaeological resource               | Historical place, site, building, shipwreck, or other archaeological site on the landscape  |
| below grade                           | Below ground level  |
| benthic                               | Related to the bottom of a body of water  |
| benthic resources                     | The seafloor surface, the substrate itself, and the communities of bottom-dwelling organisms that live within these habitats  |
| Cetacea                               | Order of aquatic mammals made up of whales, dolphins, porpoises, and related lifeforms  |
| coastal habitat                       | Coastal areas where flora and fauna live, including salt marshes and aquatic habitats   |
| coastal waters                        | Waters in nearshore areas where bottom depth is less than 98.4 feet (30 meters)   |
| coastal zone                          | The lands and waters starting at 3 nm from the land and ending at the first major land transportation route   |
| commercial fisheries                  | Areas or entities raising and catching fish for commercial profit   |
| commercial-scale wind energy facility | Wind energy facility usually greater than 1 MW that sells the produced electricity  |
| criteria pollutant                    | One of six common air pollutants for which USEPA sets NAAQS: CO, lead, NO <sub>2</sub> , ozone, particulate matter, or SO <sub>2</sub>  |
| critical habitat                      | Geographic area containing features essential to the conservation of threatened or endangered species   |
| cultural resource                     | Historical districts, objects, places, sites, buildings, shipwrecks, and archaeological sites on the American landscape, as well as sites of traditional, religious, or cultural significance to cultural groups, including Native American tribes  |
| culvert                               | structure, usually a tunnel, allowing water to flow under an obstruction (e.g., road, trail)  |
| cumulative impacts                    | Impacts that could result from the incremental impact of a specific action, such as the proposed Project, when combined with other past, present, or reasonably foreseeable future actions or other projects; can occur from individually minor, but collectively significant actions that take place over time |
| demersal                              | Living close to the ocean floor   |
| design envelope                       | The range of proposed Project characteristics defined by the applicant and used by BOEM for purposes of environmental review and permitting   |
| dredging                              | Removal of sediments and debris from the bottom of lakes, rivers, harbors, and other waterbodies  |
| duct bank                             | Underground structure that houses the onshore export cables, which consists of polyvinyl chloride pipes encased in concrete   |



| Term                                  | Definition   |
|---------------------------------------|--|
| ecosystem                             | Community of interacting living organisms and nonliving components (such as air, water, soil)  |
| electromagnetic field                 | A field of force produced by electrically charged objects and containing both electric and magnetic components   |
| embayment                             | Recessed part of a shoreline   |
| endangered species                    | A species that is in danger of extinction in all or a significant portion of its range   |
| Endangered Species Act-listed species | Species listed under the ESA of 1973 (as amended)  |
| environmental protection measure      | Measure proposed to avoid or minimize potential impacts  |
| ensonification                        | The process of filling with sound  |
| environmental consequences            | The potential direct, indirect, and cumulative impacts that the construction, O&M, and decommissioning of the proposed Project would have on the environment   |
| environmental justice communities     | Minority and low-income populations affected by the proposed Project   |
| epifauna                              | Fauna that lives on the surface of a seabed (or riverbed), or is attached to underwater objects or aquatic plants or animals   |
| essential fish habitat                | “Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (50 CFR 600)   |
| export cables                         | Cables connecting the wind facility to the onshore electrical grid power   |
| export cable corridor                 | Area identified for routing the entire length of the onshore and offshore export cables  |
| federal aids to navigation            | Visual references operated and maintained by USCG, including radar transponders, lights, sound signals, buoys, and lighthouses, that support safe maritime navigation  |
| finfish                               | Vertebrate and cartilaginous fishery species, not including crustaceans, cephalopods, or other mollusks  |
| for-hire commercial fishing           | Commercial fishing on a for-hire vessel (i.e., a vessel on which the passengers make a contribution to a person having an interest in the vessel in exchange for carriage)   |
| for-hire recreational fishing         | Fishing from a vessel carrying a passenger for hire who is engaged in recreational fishing   |
| foundation                            | The bases to which the WTGs and OSS are installed on the seabed. Three types of foundations have been considered and reviewed for the Project: jacket, monopile, or gravity-based structure.   |
| geomagnetic                           | Relating to the magnetism of the Earth   |
| hard-bottom habitat                   | Benthic habitats composed of hard-bottom (e.g., cobble, rock, and ledge) substrates  |
| historic property                     | Prehistoric or historic district, site, building, structure, or object that is eligible for or already listed in the NRHP; also includes any artifacts, records, and remains (surface or subsurface) related to and located within such a resource |
| historical resource                   | Prehistoric or historic district, site, building, structure, or object that is eligible for or already listed in the NRHP; also includes any artifacts, records, and remains (surface or subsurface) related to and located within such a resource |

| Term                            | Definition  |
|---------------------------------|---|
| horizontal directional drilling | Trenchless technique for installing underground cables, pipes, and conduits using a surface-launched drilling rig   |
| hull                            | Watertight frame or body of a ship  |
| infauna                         | Fauna living in the sediments of the ocean floor (or river or lake beds)  |
| inter-array cables              | Cables connecting the wind turbine generators to the electrical service platforms   |
| interconnection facility        | Substation connecting the proposed Project to the existing bulk power grid system   |
| inter-link cables               | Cables connecting the electrical service platforms to one another   |
| invertebrate                    | Animal with no backbone   |
| jacket foundation               | Latticed steel frame with three or four supporting piles driven into the seabed   |
| jack-up vessel                  | Mobile and self-elevating platform with buoyant hull  |
| jet excavation                  | Process of moving or removing soil with a jet   |
| jet plowing                     | Plowing in which the jet plow, with an adjustable blade, or plow rests on the seafloor and is towed by a surface vessel; the jet plow creates a narrow trench at the designated depth, while water jets fluidize the sediment within the trench; in the case of the proposed Project, the cables would then be feed through the plow and laid into the trench as it moves forward; the fluidized sediments then settle back down into the trench and bury the cable |
| knot                            | Unit of speed equaling 1 nm per hour  |
| landfall site                   | The shoreline landing site at which the offshore cable transitions to onshore   |
| marine mammal                   | Aquatic vertebrate distinguished by the presence of mammary glands, hair, three middle ear bones, and a neocortex (a region of the brain)   |
| marine waters                   | Waters in offshore areas where bottom depth is more than 98.4 feet (30 meters)  |
| mechanical cutter               | Method of submarine cable installation equipment that involves a cutting wheel or excavation chain to cut a narrow trench into the seabed allowing the cable to sink under its own weight or be pushed to the bottom of the trench via a cable depressor  |
| mechanical plow                 | Method of submarine cable installation equipment that involves pulling a plow along the cable route to lay and bury the cable. The plow's share cuts into the soil, opening a temporary trench, which is held open by the side walls of the share, while the cable is lowered to the base of the trench via a depressor. Some plows may use additional jets to fluidize the soil in front of the share.   |
| monopile or monopile foundation | A long steel tube driven into the seabed that supports a tower  |
| nautical mile                   | A unit used to measure sea distances and equivalent to approximately 1.15 miles (1.85 kilometers)   |
| offshore substation             | The interconnection point between the WTGs and the export cable; the necessary electrical equipment needed to connect the inter-array cables to the offshore export cables  |
| onshore substation              | Substation connecting the proposed Project to the existing bulk power grid system   |

| Term                                  | Definition   |
|---------------------------------------|--|
| operations and maintenance facilities | Would include offices, control rooms, warehouses, shop space, and pier space   |
| Outer Continental Shelf               | All submerged land, subsoil, and seabed belonging to the United States but outside of states' jurisdiction   |
| pile                                  | A type a foundation akin to a pole   |
| pile driving                          | Installing foundation piles by driving them into the seafloor  |
| pinnipeds                             | Carnivorous, semiaquatic marine mammals with fins, also known as seals   |
| pin pile                              | Small-diameter pipe driven into the ground as foundation support   |
| plume                                 | Column of fluid moving through another fluid   |
| private aids to navigation            | Visual references on structures positioned in or near navigable WOTUS, including radar transponders, lights, sound signals, buoys, and lighthouses, that support safe maritime navigation; permits for the aids are administered by USCG     |
| Project area                          | The combined onshore and offshore area where proposed Project components would be located  |
| protected species                     | Endangered or threatened species that receive federal protection under the ESA of 1973 (as amended)  |
| scour protection                      | Protection consisting of rock and stone that would be placed around all foundations to stabilize the seabed near the foundations as well as the foundations themselves   |
| scrublands                            | Plant community dominated by shrubs and often also including grasses and herbs   |
| sessile                               | Attached directly by the base  |
| silt substrate                        | Substrate made of a granular material originating from quartz and feldspar, and whose size is between sand and clay  |
| soft-bottom habitat                   | Benthic habitats include soft-bottom (i.e., unconsolidated sediments) and hard-bottom (e.g., cobble, rock, ledge) substrates, as well as biogenic habitat (e.g., eelgrass, mussel beds, worm tubes) created by structure-forming species     |
| substrate                             | Earthy material at the bottom of a marine habitat; the natural environment that an organism lives in   |
| suspended sediments                   | Very fine soil particles that remain in suspension in water for a considerable period of time without contact with the bottom; such material remains in suspension due to the upward components of turbulence and currents, or by suspension |
| threatened species                    | A species that is likely to become endangered within the foreseeable future  |
| tidal energy project                  | Project related to the conversion of the energy of tides into usable energy, usually electricity   |
| tidal flushing                        | Replacement of water in an estuary or bay because of tidal flow  |
| trawl                                 | A large fishing net dragged by a vessel at the bottom or in the middle of sea or lake water  |
| turbidity                             | A measure of water clarity   |
| utility right-of-way                  | Registered easement on private land that allows utility companies to access the utilities or services located there  |
| vibracore                             | Technology/technique for collecting core samples of underwater sediments and wetland soils   |

| <b>Term</b>            | <b>Definition</b>   |
|------------------------|---|
| viewshed               | Area visible from a specific location   |
| visual resource        | The visible physical features on a landscape, including natural elements such as topography, landforms, water, vegetation, and manmade structures |
| wetland                | Land saturated with water; marshes; swamps  |
| wind energy            | Electricity from naturally occurring wind   |
| wind energy area       | Areas with significant wind energy potential and defined by BOEM  |
| wind turbine generator | Component that puts out electricity in a structure that converts kinetic energy from wind into electricity  |

NAAQS = National Ambient Air Quality Standards; NO<sub>2</sub> = nitrogen dioxide

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