Construction and Operations Plan

30 CFR Part 585

South Fork Wind Farm

Submitted to:
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Sterling, VA 20166

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Executive Summary

This *South Fork Wind Farm and South Fork Export Cable Construction and Operations Plan* (COP) is being submitted by Deepwater Wind South Fork, LLC (DWSF or the Applicant) to support the siting and development of the South Fork Wind Farm (SFWF) and the South Fork Export Cable (SFEC), collectively the Project.

The SFWF includes up to 15 wind turbine generators (WTGs or turbines) with a nameplate capacity of 6 to 12 MW per turbine, submarine cables between the WTGs (Inter-array Cables), and an offshore substation (OSS), all of which will be located within federal waters on the outer continental shelf (OCS), specifically in the Bureau of Ocean Energy Management (BOEM) Renewable Energy Lease Area OCS-A 0517 (Lease Area),[1] approximately 19 miles (30.6 kilometers [km], 16.6 nautical miles [nm]) southeast of Block Island, Rhode Island, and 35 miles (56.3 km, 30.4 nm) east of Montauk Point, New York. The SFWF also includes an Operations and Maintenance (O&M) facility that will be located onshore at either Montauk in East Hampton, New York, or Quonset Point in North Kingstown, Rhode Island.

The SFEC is an alternating current (AC) electric cable that will connect the SFWF to the existing mainland electric grid in East Hampton, New York. The SFEC includes both offshore and onshore segments. Offshore, the SFEC is located in federal waters (SFEC – OCS) and New York State territorial waters (SFEC – NYS) and will be buried to a target depth of 4 to 6 feet in the seabed. Onshore, the terrestrial underground segment of the export cable (SFEC – Onshore) will be located in East Hampton, New York. The SFEC – NYS will be connected to the SFEC – Onshore via the sea-to-shore transition where the offshore and onshore cables will be spliced together. The SFEC also includes a new Interconnection Facility where the SFEC will interconnect with the Long Island Power Authority (LIPA) electric transmission and distribution system in the town of East Hampton, New York.

The approximate location of the entire Project is shown on Figure ES-1. The landing site options and route variants of the SFEC – Onshore are shown on Figure ES-2.

The Project is scheduled to be installed during 2021 and 2022, and to be commissioned and operational by the end of 2022.

The Project components and locations presented in this COP have been selected based on environmental and engineering site characterization studies completed to date and will be refined in the Facility Design Report (FDR) and Fabrication and Installation Report (FIR), which will be reviewed by BOEM pursuant to Title 30 of the *Code of Federal Regulations* (CFR) Parts 585.700-702 before the commencement of installation. In addition, a Certified Verification Agent (CVA), approved by BOEM, will conduct an independent assessment and verify that the Project components are fabricated and installed in accordance with both this COP and the FIR.

The purpose of the Project is to generate electricity from an offshore wind farm located in the Lease Area and to transmit it to the East Hampton Substation. The Project addresses the need identified by the LIPA for new sources of power generation that can cost-effectively and reliably supply the South Fork of Suffolk County, Long Island, as an alternative to constructing new transmission facilities. The Project will also help LIPA achieve its renewable energy goals. The Project will enable DWSF to fulfill its contractual commitments to LIPA

[1] The leaseholder of Renewable Energy Lease Area OCS-A 0517 is DWSF. This Lease Area was previously part of OCS-A 0486. The leaseholder of OCS-A 0486 is Deepwater Wind New England, LLC. Deepwater Wind New England, LLC has requested that BOEM assign a portion of its lease to DWSF.

pursuant to a Power Purchase Agreement executed in 2017 resulting from LIPA's technology-neutral competitive bidding process.

This COP includes the following information:

- An overview of the Project, including details on the regulatory framework in which the Project will be reviewed, a description of the agency and stakeholder outreach, a tentative schedule and other key project information requested by BOEM (Section 1);
- A summary of the siting and route selection process for both the SFWF and SFEC, including a siting history, details on steps taken to identify and evaluate potential SFEC routes, and description of technologies and installation methods considered (Section 2);
- A description of all planned facilities, including onshore and support facilities; and all proposed activities, including construction activities, commercial O&M, and conceptual decommissioning plans (Section 3); and
- A characterization and assessment of potential impacts during construction, O&M, and decommissioning activities, which will support relevant project reviews and consultations (Section 4).

This COP was prepared in accordance with 30 CFR § 585. BOEM is expected to be the lead federal agency under the National Environmental Policy Act (NEPA). For activities related to the SFEC – NYS and SFEC – Onshore in New York State, the New York Public Service Commission will lead the review of the Project activities under Article VII of the New York Public Service Law.

In addition to the federal and state level permits, the Project must also comply with applicable provisions of the Endangered Species Act, the Marine Mammals Protection Act, the Migratory Bird Treaty Act, the Magnuson-Stevens Fishery Conservation and Management Act, the National Historic Preservation Act, the Coastal Zone Management Act, the Clean Air Act, the Rivers & Harbors Act, and the Clean Water Act.

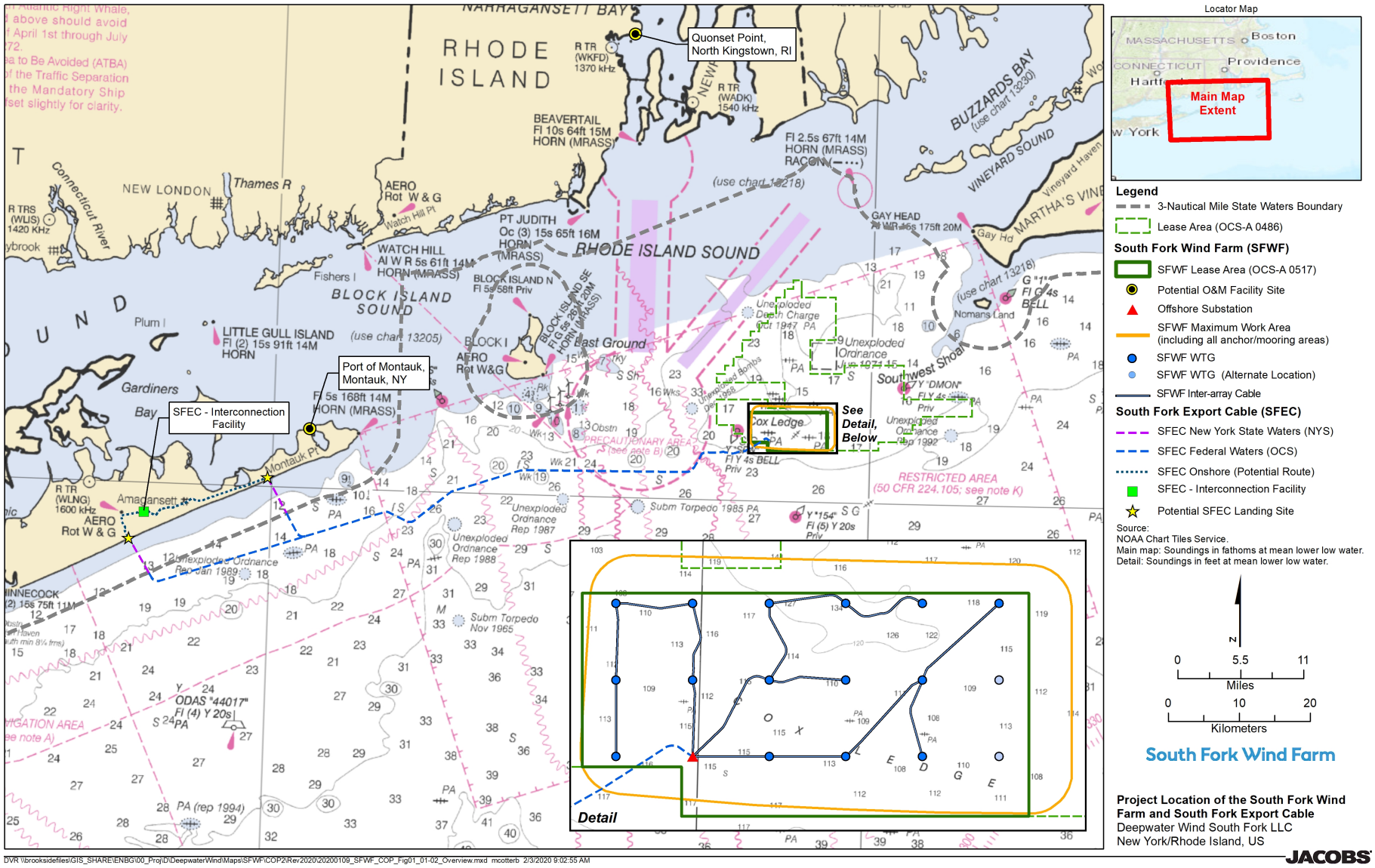

Figure ES-1. Project Location of the SFWF and SFEC
Depiction of the SFWF and SFEC, shown on a nautical chart.

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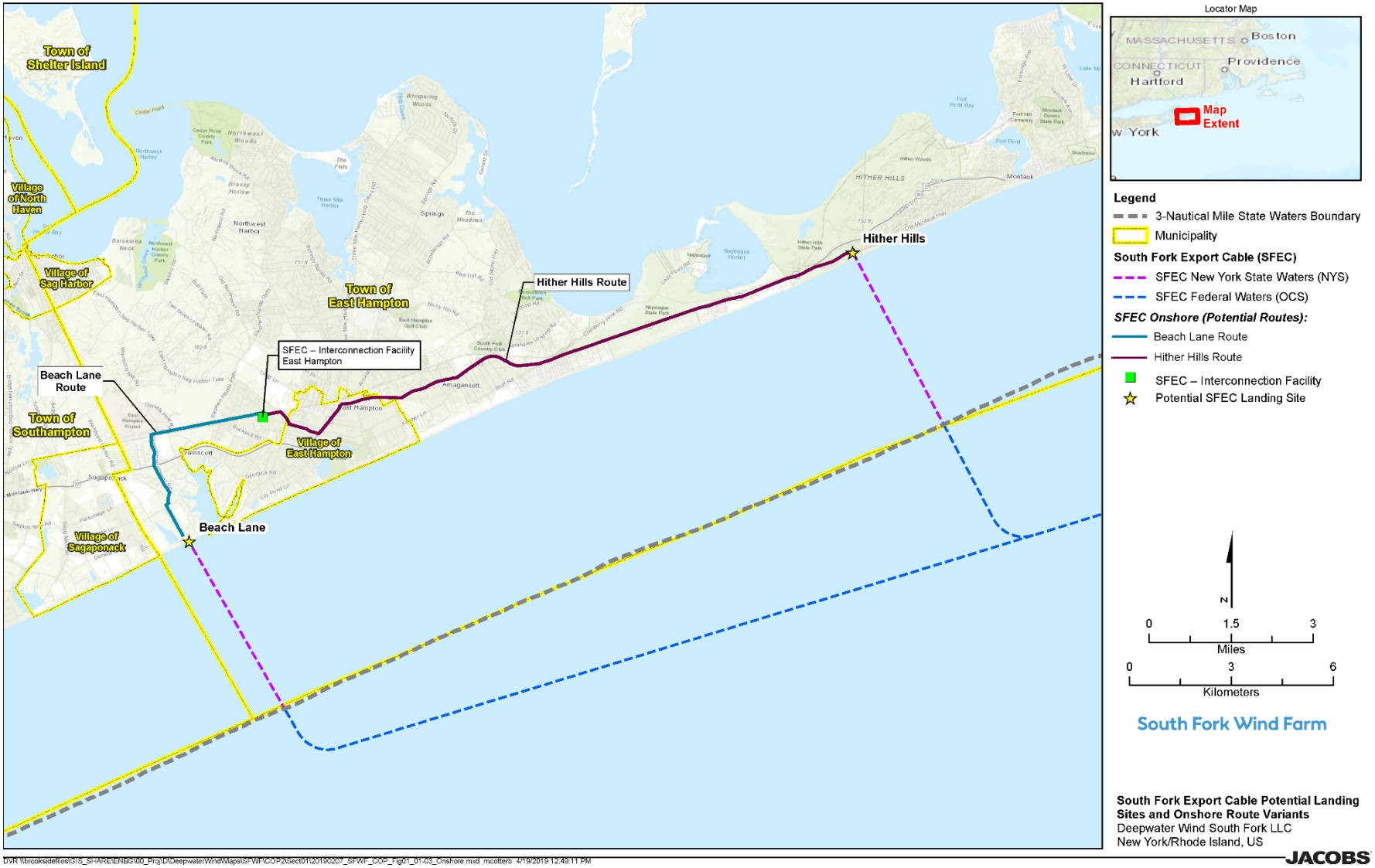

Figure ES-2. Location of the SFEC – Onshore and Interconnection Point

Depiction of the SFEC – NYS and SFEC – Onshore, including landing site options, route variants, and interconnection point.

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Since 2010, DWSF has conducted a variety of activities that have informed the design and characteristics of the Project. For example, DWSF has:

- Engaged in outreach relating to the Project with federal and state agencies, federally-recognized Native American tribes, municipal organizations in East Hampton, New York, stakeholders representing a broad range of perspectives, and the public.
- Evaluated several offshore and onshore cable routes and substation locations to fulfill the Project's objective to deliver power into eastern Long Island, New York.
- Completed geophysical and geotechnical surveys in 2017 and 2018 to inform a site characterization of the Project. These surveys were conducted for both the SFWF and along multiple routes considered for the SFEC. Where possible, the Project was sited to avoid areas with boulders, and to avoid or minimize impacts to commercial fishing areas, archaeological resources, and shallow hazards.
- Completed extensive studies and assessments in 2017 and 2018 to characterize the offshore resources that may be impacted by construction and installation, O&M, and decommissioning activities.
- Completed conceptual engineering and planning discussions with municipal and state agencies to identify potential landing sites and conducted field surveys for multiple onshore route options from the landing sites to the SFEC – Interconnection Facility.

Consistent with BOEM's *Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan* (January 2018), DWSF considered several potential technologies and installation methods for the SFWF and SFEC. This envelope approach results in a range of characteristics and locations for components that will be considered in the environmental review for the Project. The key characteristics for the Project, which may include relevant variations in the Project Envelope, are:

- SFWF foundation type (monopile, with pile diameter up to 11 m diameter).
- SFWF WTG size (6 to 12 megawatts [MW]). DWSF has committed to an indicative layout scenario with WTG sited in a grid with approximately 1.15 mile (1.8 km, 1 nm) by 1.15 mile (1.8 km, 1 nm) spacing that aligns with other proposed adjacent offshore wind projects in the Rhode Island/Massachusetts Wind Energy Area.
- SFEC landing site (Beach Lane or Hither Hills).
- SFEC installation method for offshore cable (installed via mechanical cutter, mechanical plow, and/or jet-plow to achieve the target burial depth of 4 to 6 feet (1.22 to 1.83 meters [m]).
- SFEC installation method for sea-to-shore transition (a conduit installed by horizontal directional drilling [HDD] under the beach and intertidal water; may also include a temporary cofferdam located offshore beyond the intertidal zone).

This COP includes site characterization and assessment of potential impacts for the Project and recognizes that impacts may be different for the SFWF and SFEC during the phases of construction, operations and maintenance and decommissioning. The assessment is based upon the requirements set forth in 30 CFR § 585.627 and is also informed by input from federal and

state agencies and other public and private stakeholders in the region. The approach to characterization and assessment included several steps:

- Impact-producing Factors (IPFs): Project activities that could impact resources were identified as IPFs, which include seafloor and land disturbance; sediment suspension and deposition; noise; electric and magnetic fields; discharges and releases; trash and debris; traffic; air emissions; visible structures; and lighting.
- Affected Environment: Physical, biological, cultural, visual, and socioeconomic resources were characterized based upon extensive desktop studies, targeted field studies, predictive modeling, and data analysis. These assessments provided a detailed background on the condition of these resources in the affected environment. Desktop studies included literature reviews; examination of publicly-available datasets; direct communication with academic and government science researchers; and consultation with state and federal government entities.

  The Rhode Island Ocean Special Area Management Plan, the New York Ocean Plan, and the Massachusetts Ocean Plan provided important insight on environmental conditions and existing human activities in and near the SFWF and SFEC. The resource characterizations also relied on the material published in recent BOEM NEPA documents, such as the *Final Programmatic Environmental Impact Statement (PEIS) for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf* (BOEM, 2007).
- Impact Assessment: The type and degree of potential impacts from proposed Project activities varies based on the characteristics of the resource (e.g., presence/absence, conservation status, abundance) and the IPF that may affect each resource. Potential impacts are discussed separately for the SFWF and SFEC. Where relevant and distinct, potential impacts for different segments of the SFEC are discussed separately. Where applicable, potential impacts were identified as direct or indirect; short term or long term; and negligible, minor, moderate, or major. If measures are proposed to avoid and minimize potential impacts, the impact evaluation included consideration of these environmental protection measures.

The SFWF and SFEC were sited, planned, and designed to avoid and minimize impacts. Most potential impacts to affected physical, biological, cultural, visual, and socioeconomic resources will be mitigated. Resources that may be impacted by the SFWF and SFEC are expected to recover given that impacts will be limited temporally and/or spatially.

Table ES-1 summarizes the potential impacts expected from the implementation of the activities described in this COP and the environmental protection measures that DWSF will adopt to minimize these potential impacts.

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Air Quality	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: No Impact • Air Emissions: Negligible – Minor • Visible Structures: No Impact • Lighting: No Impact	• Vessels providing construction or maintenance services for the SFWF will use low sulfur fuel where possible. • Vessel engines will meet the appropriate EPA air emission standards for nitrogen oxide emissions when operating within Emission Controls Areas. • Equipment and fuel suppliers will provide equipment and fuels that comply with the applicable U.S. Environmental Protection Agency or equivalent emission standards. • Marine engines with a model year of 2007 or later and non-road engines complying with the Tier 3 standards (in 40 CFR 89 or 1039) will be used to satisfy BACT. • The use of wind to generate electricity reduces the need for electricity generation from new traditional fossil fuel powered plants on the South Fork of Long Island that produce greenhouse gas emissions.
Water Quality	• Seafloor and Land Disturbance: Negligible - Minor • Sediment Suspension and Deposition: Negligible – Minor • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: No Impact • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: No Impact	• Installation of the SFWF Inter-array Cable and SFEC - Offshore will occur using equipment such as mechanical cutter, mechanical plow, and/or jet plow. Compared to open cut dredging, this method will minimize turbidity and total suspended solids. • Vessels will comply with regulatory requirements related to the prevention and control of discharges and accidental spills. • Accidental spill or release of oils or other hazardous materials will be managed through the Oil Spill Response Plan (OSRP) (Appendix D). • At the onshore HDD work area for the SFEC, drilling fluids will be managed within a contained system to be collected for reuse as necessary • An HDD Inadvertent Release Plan will minimize the potential risks associated with release of drilling fluids or a frac-out. • A Stormwater Pollution Prevention Plan, including erosion and sedimentation control measures, and a Spill Prevention, Control,

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		and Countermeasures Plan, will minimize potential impacts to water quality during construction of the SFEC - Onshore.
Geological Resources	• Seafloor and Land Disturbance: Negligible – Minor • Sediment Suspension and Deposition: Negligible – Minor • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: No Impact • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: No Impact	• The SFWF and SFEC - Offshore will avoid, to the extent practicable, identified shallow hazards. • Installation of the SFWF Inter-array Cable and SFEC - Offshore will occur using equipment such as mechanical cutter, mechanical plow, and/or jet plow. Compared to open cut dredging this method will minimize impacts to surficial geology. • Use of monopiles with associated scour protection will minimize impacts to surficial geology, compared to other foundation types. • Use of dynamic positioning (DP) vessel for cable installation for the SFWF Inter-array Cable and SFEC - Offshore will minimize impacts to surficial geology, as compared to use of a vessel relying on multiple-anchors. • A plan for vessels will be developed prior to construction to identify no-anchor areas inside the maximum work area (MWA) to protect sensitive areas or other areas to be avoided. • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone. SFEC - Onshore is sited within previously disturbed existing rights-of-way (ROWs).
Oceanographic and Meteorological Conditions	• Seafloor and Land Disturbance: Negligible • Sediment Suspension and Deposition: Negligible • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: No Impact • Air Emissions: No Impact • Visible Structures: Negligible • Lighting: No Impact	• DWSF has designed the Project to account for site-specific oceanographic and meteorological conditions within the Project Area; therefore, no additional measures are necessary.

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Coastal and Terrestrial Habitat	• Seafloor and Land Disturbance: Negligible • Sediment Suspension and Deposition: Negligible • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: No Impact • Air Emissions: No Impact • Visible Structure: No Impact • Lighting: No Impact	• SFEC - Onshore is sited within previously disturbed existing ROWs. • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone. Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D). • A Stormwater Pollution Prevention Plan, including erosion and sedimentation control measures, and a Spill Prevention, Control, and Countermeasures Plan, will minimize potential impacts to water quality during construction of the SFEC - Onshore.
Benthic and Shellfish Resources	• Seafloor and Land Disturbance: Negligible - Minor • Sediment Suspension and Deposition: Negligible – Minor • Noise: Negligible – Minor • Electromagnetic Field: Negligible • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: Negligible • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: Negligible	• The SFWF and SFEC - Offshore will minimize impacts to harder and rockier bottom habitats to the extent practicable. • Installation of the SFWF Inter-array Cable and SFEC - Offshore will occur using equipment such as mechanical cutter, mechanical plow, and/or jet plow. Compared to open cut dredging, this method will minimize long-term impacts to the benthic habitat. • Use of monopiles with associated scour protection will minimize impacts to benthic habitat, compared to other foundation types. • The SFWF Inter-array Cable and SFEC - Offshore will be buried to a target depth of 4 to 6 feet (1.2 to 1.8 m). • Use of DP vessel for cable installation for the SFWF Inter-array Cable and SFEC - Offshore will minimize impacts to benthic and shellfish resources, as compared to use of a vessel relying on multiple-anchors. • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone, including benthic and shellfish resources. • A plan for vessels will be developed prior to construction to identify no-anchor areas inside the MWA to protect sensitive areas or other areas to be avoided.

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Finfish and Essential Fish Habitat	• Seafloor and Land Disturbance: Negligible – Minor • Sediment Suspension and Deposition: Negligible – Minor • Noise: Negligible – Moderate • Electromagnetic Field: Negligible • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: Negligible – Negligible - Moderate • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: Negligible	• The SFWF and SFEC - Offshore will minimize impacts to important habitats for finfish species. • Installation of the SFWF Inter-array Cable and SFEC - Offshore will occur using equipment such as mechanical cutter, mechanical plow, and/or jet plow. Compared to open cut dredging, this method will minimize sediment disturbance and alteration of demersal finfish habitat. • The SFWF Inter-array Cable and SFEC - Offshore will be buried to a target depth of 4 to 6 feet (1.2 to 1.8 m). • Siting of the SFWF and SFEC - Offshore were informed by site-specific benthic habitat assessments and Atlantic cod spawning surveys. • Use of DP vessel for cable installation for the SFWF Inter-Array Cable and SFEC - Offshore will minimize impacts to finfish and essential fish habitat (EFH) resources, as compared to use of a vessel relying on multiple-anchors. • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone, including finfish and EFH resources. • DWSF is committed to collaborative science with the commercial and recreational fishing industries pre-, during, and post-construction. • A plan for vessels will be developed prior to construction to identify no-anchor areas inside the MWA to protect sensitive areas or other areas to be avoided. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D).

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Marine Mammals	• Seafloor and Land Disturbance: Negligible • Sediment Suspension and Deposition: Negligible • Noise: Negligible – Major • Electromagnetic Field: Negligible • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: Negligible – Moderate • Air Emissions: No Impact • Visible Structures: Negligible • Lighting: Negligible	• Exclusion and monitoring zones for marine mammals will be established for pile driving and high-resolution geophysical (HRG) survey activities. • Mitigation measures will be implemented for pile driving and HRG survey activities. These measures will include soft-start measures, shut-down procedures, protected species monitoring protocols, use of qualified and National Oceanic and Atmospheric Administration (NOAA)-approved protected species observers, and noise attenuation systems such as bubble curtains, as appropriate. • Impact pile driving activities will not occur at the SFWF from January 1 to April 30 to minimize potential impacts to the North Atlantic right whale, which will also have a protective effect for other marine mammal species. • Vessels will follow NOAA guidelines for marine mammal strike avoidance measures, including vessel speed restrictions. • All personnel working offshore will receive training on marine mammal awareness and marine debris awareness. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D). • The SFWF Inter-array Cable and SFEC - Offshore will be buried to a target depth of 4 to 6 feet (1.2 to 1.8 m).
Sea Turtles	• Seafloor and Land Disturbance: Negligible - Minor • Sediment Suspension and Deposition: Negligible • Noise: Negligible – Moderate • Electromagnetic Field: Negligible • Discharges and Releases: Negligible	• Exclusion and monitoring zones will be established for sea turtles during pile driving activities and HRG survey activities • Mitigation measures will be implemented for pile driving and HRG survey activities. These measures will include soft-start measures, shut-down procedures, protected species monitoring protocols, use of qualified and NOAA-approved protected species

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Resource	Potential Impacts by IPF	Environmental Protection Measures
	• Trash and Debris: Negligible • Traffic: Negligible – Moderate • Air Emission: No Impact • Visible Structure: Negligible • Lighting: Negligible	observers, and noise attenuation systems such as bubble curtains, as appropriate. Impact pile driving activities will not occur at the SFWF from January 1 to April 30 to minimize potential impacts to the North Atlantic right whale, which will also have a protective effect for sea turtles. • Vessels will follow NOAA guidelines for sea turtle strike avoidance measures, including vessel speed restrictions. • All personnel working offshore will receive training on sea turtle awareness and marine debris awareness. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D). • The SFWF Inter-array Cable and SFEC - Offshore will be buried to a target depth of 4 to 6 feet (1.2 to 1.8 m).
Avian Species	• Seafloor and Land Disturbance: Negligible • Sediment Suspension and Deposition: Negligible • Noise: Negligible – Minor • Electromagnetic Field: No Impact • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: Negligible – Minor • Air Emissions: No Impact • Visible Structures: Negligible – Minor • Lighting: Negligible – Minor	• The SFWF WTGs will be widely spaced apart allowing avian species to avoid individual WTGs and minimize risk of potential collision. • The location of the SFWF, more than 18 miles (30 km, 16 nm) offshore, avoids the coastal areas, which are known to attract birds, particularly shorebirds and seaducks. • Lighting during operations will be limited to the minimum required by regulation and for safety, therefore minimizing the potential for attraction or disorientation. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D).

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		• The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone. • An avian management plan for listed species will be prepared for the SFEC - Onshore. • The SFEC - Onshore cable will be buried; therefore, avoiding the risk to birds associated with overhead lines.
Bat Species	• Seafloor and Land Disturbance: Negligible – Minor • Sediment Suspension and Deposition: No Impact • Noise: Negligible • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structures: Negligible – Minor • Lighting: Negligible – Minor	• Lighting during operations will be limited to the minimum required by regulation and for safety, therefore minimizing the potential for attraction (or attraction of insect prey) and possibly collision of bats at night. • SFEC - Onshore will be located underground in previously disturbed areas, such as roadways and railroad ROW, therefore, minimizing potential impacts from clearing.
Above-Ground Historic Properties	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: Negligible • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structure: Negligible - Major • Lighting: Negligible – Minor	• The location of SFWF WTGs, approximately 19 miles (30.6 km, 16.6 nm) from Block Island, 21 miles (33.7 km, 18.2 nm) from Martha's Vineyard, and 35 miles (56.3 km, 30.4 nm) from Montauk, restricts available views from visually sensitive above-ground historic properties. • SFWF WTGs will have uniform design, speed, height, and rotor diameter. • The color of the SFWF WTGs (less than 5 percent grey tone) generally blends well with the sky at the horizon and eliminates the need for daytime lights or red paint marking of the blade tips. • The SFEC - Onshore cable will be buried; therefore, minimizing potential visual impacts to above ground historic properties. • The SFEC - Interconnection Facility will be located adjacent to an existing substation on parcel zoned for commercial and industrial/utility use.

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		• The SFEC - Interconnection Facility land parcel is currently screened by mature trees. After construction, additional screening will be considered to further reduce potential visibility and visual impact.
Marine Archaeological Resources	• Seafloor and Land Disturbance: Minor – Moderate • Sediment Suspension and Deposition: Negligible • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: No Impact • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: No Impact	• The SFWF and SFEC - Offshore will avoid or minimize impacts to potential submerged cultural sites, to the extent practicable. • Native American tribes were involved, and will continue to be involved, in marine survey protocol design, execution of the surveys, and interpretation of the results. • A plan for vessels will be developed prior to construction to identify no-anchor areas inside the MWA to protect sensitive areas or other areas to be avoided. An Unanticipated Discovery Plan will be implemented that will include stop-work and notification procedures to be followed if a cultural resource is encountered during installation. • As appropriate, DWSF will conduct additional archaeological analysis and/or investigation to further assess potential sensitive areas. • Geophysical and geotechnical (G&G) survey coverage is sufficient to support design changes, if minor refinement of SFWF facility locations is necessary to avoid paleolandforms.
Terrestrial Archaeological Resources	• Seafloor and Land Disturbance: Minor – Moderate • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: No Impact • Air Emissions: No Impact • Visible Structures: No Impact • Lighting: No Impact	• The route for the SFEC - Onshore will minimize impacts to, or avoid, potential terrestrial archeological resources, to the extent practicable. • Native American tribes were involved, and will continue to be involved, in terrestrial survey protocol design, execution of the surveys, and interpretation of the results. • Analysis shows that the majority of the SFEC - Onshore route has been previously disturbed; therefore, the risk of potentially encountering undisturbed archaeological deposits is minimized. • An Unanticipated Discovery Plan will be implemented that will include stop-work and notification procedures to be followed if a

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		cultural resource is encountered during installation. • DWSF will conduct additional archaeological investigation to further assess potential sensitive areas.
Visual Resources	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Minor • Air Emissions: No Impact • Visible Structures: Minor • Lighting: Minor	• The location of SFWF, approximately 19 miles (30.6 km, 16.6 nm) from Block Island, 21 miles (33.7 km, 18.2 nm) from Martha's Vineyard, and 35 miles (56.3 km, 30.4 nm) from Montauk, restricts available views from visually sensitive public resources and population centers. • SFWF WTGs will have uniform design, speed, height, and rotor diameter. • The color of the SFWF WTGs (less than 5 percent grey tone) generally blends well with the sky at the horizon and eliminates the need for daytime lights or red paint marking of the blade tips. • Use of an Aircraft Detection Lighting System will mitigate nighttime visual impacts. • The SFEC - Interconnection Facility will be located adjacent to an existing substation on a parcel zoned for commercial and industrial use. • At the SFEC - Interconnection Facility, additional screening will be considered to further reduce potential visibility and noise.
Population, Economy, & Employment	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: Negligible • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structure: Negligible - Minor • Lighting: No Impact	• Where possible, local workers will be hired to meet labor needs for Project construction, O&M, and decommissioning. • The location of SFWF WTGs restricts available views from visually sensitive public resources and population centers. • The SFEC - Onshore construction schedule has been designed to minimize impacts to the local community during the summer tourist season. • At the SFEC - Interconnection Facility, additional screening will be considered to further reduce potential visibility and noise. • New York State Law requires that the SFEC - Onshore be constructed in compliance with

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		a detailed plan that includes traffic and other control measures.
Property Values	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: Negligible • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structure: Negligible • Lighting: Negligible	• The SFEC - Onshore cable will be buried; therefore, minimizing potential impacts to adjacent properties. • The location of SFWF WTGs restricts available views from visually sensitive public resources and population centers. • The SFEC - Onshore construction schedule has been designed to minimize impacts to the local community during the summer tourist season. • At the SFEC - Interconnection Facility, additional screening will be considered to further reduce potential visibility and noise. • New York State Law requires that the SFEC - Onshore be constructed in compliance with a detailed plan that includes traffic and other control measures.
Public Services	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air emissions: No Impact • Visible Structures: No Impact • Lighting: No Impact	• The SFEC - Onshore construction schedule has been designed to minimize impacts to the local community during the summer tourist season. • New York State Law requires that the SFEC - Onshore be constructed in compliance with a detailed plan that includes traffic and other control measures. • DWSF will also coordinate with local authorities during SFEC – Onshore construction to minimize local traffic impacts. • A comprehensive communication plan will be implemented during offshore construction. DWSF will submit information to the U.S. Coast Guard (USCG) to issue Local Notice to Mariners during offshore installation activities.
Recreation & Tourism	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact	• The location of SFWF WTGs restricts available views from visually sensitive public resources and population centers. • A comprehensive communication plan will be implemented during offshore construction to inform all mariners, including commercial and recreational fishermen, and recreational

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
	• Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structures: Negligible – Minor • Lighting: Negligible – Minor	boaters of construction activities and vessel movements. Communication will be facilitated through a Project website, public notices to mariners and vessel float plans, and a fisheries liaison. DWSF will submit information to the USCG to issue Local Notice to Mariners during offshore installation activities. • The communication plan will also include outreach to stakeholders in the offshore recreational and tourism industry to minimize impacts to recreational events (e.g., sailboat races). • The SFEC - Onshore construction schedule has been designed to minimize impacts to the local community during the summer tourist season. • New York State Law requires that the SFEC - Onshore be constructed in compliance with a detailed plan that includes traffic and other control measures. • DWSF will also coordinate with local authorities during SFEC - Onshore construction to minimize local traffic and noise impacts.
Commercial and Recreational Fishing	• Seafloor and Land Disturbance: Minor – Moderate • Sediment Suspension and Deposition: Negligible • Noise: Negligible – Minor • Electromagnetic Field: Negligible • Discharges and Releases: Negligible • Trash and Debris: Negligible • Traffic: Negligible – Minor • Air Emissions: No Impact • Visible Structures: Minor • Lighting: No Impact	• DWSF is committed to a spacing of approximately 1.15 mile (1.8 km), or one nautical mile (nm), between turbines. • The Inter-array Cable and SFEC - Offshore will be buried to a target depth of 4 to 6 feet (1.2 to 1.8 m). • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone, including. sensitive shoreline habitats and shoreline fishing areas. • As appropriate and feasible, Best Management Practices will be implemented to minimize impacts on fisheries, as described in the *Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development* (BOEM, 2015). • Siting of the SFWF and SFEC - Offshore were informed by site-specific benthic habitat

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
		assessments and Atlantic cod spawning surveys. • DWSF is committed to collaborative science with the commercial and recreational fishing industries pre-, during, and post-construction. • Each WTG will be marked and lit with both USCG and approved aviation lighting. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D). • Communications and outreach with the commercial and recreational fishing industries will be guided by the Project-specific Fisheries Communications Plan (Appendix B). This outreach will be led by the DWSF Fisheries Liaisons. Fisheries Representatives from the ports of Montauk, Point Judith, and New Bedford represent the fishing community. • A comprehensive communication plan will be implemented during offshore construction to inform all mariners, including commercial and recreational fishermen, and recreational boaters of construction activities and vessel movements. Communication will be facilitated through a Fisheries Liaison, a Project website, and public notices to mariners and vessel float plans (in coordination with USCG).

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Commercial Shipping and Other Marine Uses	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: No Impact • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible – Minor • Air Emissions: No Impact • Visible Structures: Negligible • Lighting: Negligible	• DWSF is committed to a spacing of approximately 1.15 mile (1.8 km), or one nautical mile, between turbines. • Each WTG will be marked and lit with both USCG and approved aviation lighting. An Automatic Identification System will be installed at the SFWF marking the corners of the wind farm to assist in safe navigation. • All appropriate lighting and marking schemes, based on current regulations, will be implemented. • DWSF will require all construction and operations vessels to comply with regulatory requirements related to the prevention and control of spills and discharges. • Accidental spill or release of oils or other hazardous materials will be managed through the OSRP (Appendix D). • Project construction, O&M, and decommissioning activities will be coordinated with appropriate contacts at USCG and U.S. Department of Defense command headquarters. • A comprehensive communication plan will be implemented during offshore construction to inform all mariners, including commercial and recreational fishermen, and recreational boaters of construction activities and vessel movements. Communication will be facilitated through a Fisheries Liaison, Project website, and public notices to mariners and vessel float plans (in coordination with USCG).

Table ES-1. Summary of Potential Impacts and Environmental Protection Measures, by Resource

Resource	Potential Impacts by IPF	Environmental Protection Measures
Coastal Land Use & Infrastructure	• Seafloor and Land Disturbance: Negligible – Minor • Sediment Suspension and Deposition: No Impact • Noise: Negligible - Minor • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible - Minor • Air Emissions: No Impact • Visible Structure: Negligible • Lighting: Negligible	• SFEC - Onshore will be located underground in previously disturbed areas, such as roadways and railroad ROW. • The SFEC sea-to-shore transition will be installed via HDD to avoid impacts to the dunes, beach, and near-shore zone. New York State Law requires that the SFEC - Onshore be constructed in compliance with a detailed plan that includes traffic and other control measures. • DWSF will also coordinate with local authorities during SFEC - onshore construction to minimize local traffic and noise impacts. • A Stormwater Pollution Prevention Plan, including erosion and sedimentation control measures, and a Spill Prevention, Control, and Countermeasures Plan, will minimize potential impacts to adjacent lands uses during construction of the SFEC - Onshore.
Environmental Justice	• Seafloor and Land Disturbance: No Impact • Sediment Suspension and Deposition: No Impact • Noise: Negligible • Electromagnetic Field: No Impact • Discharges and Releases: No Impact • Trash and Debris: No Impact • Traffic: Negligible • Air Emissions: No Impact • Visible Structure: Negligible • Lighting: No Impact	• The use of wind to generate electricity will have a beneficial impact on air emissions in East Hampton, as it reduces the need for electricity generation from traditional fossil fuel powered plants on the South Fork of Long Island that produce greenhouse gas emissions. • Where possible, local workers will be hired to meet labor needs for Project construction, O&M, and decommissioning. • New York State Law requires that the SFEC - Onshore be constructed in compliance with a detailed plan that includes traffic and other control measures. • DWSF will also coordinate with local authorities during SFEC - Onshore construction to minimize local traffic and noise impacts.

Contents

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Acronyms and Abbreviations

§	Part or Section
µg/m^3	microgram(s) per cubic meter
µPa	micropascal(s)
µT	microtesla(s)
AC	alternating current
ACCSP	Atlantic Coastal Cooperative Statistics Program
ACS	American Community Survey
ADLS	Aircraft Detection Lighting System
AEP	auditory evoked potential
AIA	American Institute of Architects
AIS	Automatic Identification System
AMAPPS	Atlantic Marine Assessment Program for Protected Species
AMI	area of mutual interest
ANSI	American National Standards Institute
APE	Area of Potential Effects
APPEA	Australian Petroleum Production and Exploration Association
ASMFC	Atlantic States Marine Fisheries Commission
ATON	Aids to Navigation
ATT	Admiralty Total Tide
AWOIS	Automated Wreck and Obstruction Information System
BACT	best available control technology
BEA	Bureau of Economic Analysis
BERR	U.K. Department for Business Enterprise and Regulatory Reform
bgs	below ground surface
BIL	Basic Insulation Level
BIWF	Block Island Wind Farm
BMP	best management practice
BOEM	Bureau of Ocean Energy Management
BOEMRE	Bureau of Ocean Energy Management, Regulation and Enforcement
BP	before present day
BSEE	Bureau of Safety and Environmental Enforcement
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAA	Clean Air Act
CDP	Census Designated Place
CECPN	Certificate of Environmental Compatibility and Public Need
CEQ	Council on Environmental Quality
CETAP	Cetacean and Turtle Assessment Program
CFR	*Code of Federal Regulations*
CFSR	Climate Forecast System Reanalysis
CH4	methane
cm	centimeter(s)

C-MAN	Coastal-Marine Automated Network
CMECS	Coastal and Marine Ecological Classification Standard
CMR	Code of Massachusetts Regulations
CO	carbon monoxide
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
COA	corresponding onshore area
COLREGs	International Regulations for Preventing Collisions at Sea 1972
COP	Construction and Operations Plan
CPT	cone penetration testing
CRESLI	Coastal Research and Education Society of Long Island, Inc.
CRIS	Cultural Resources Information System
CRMP	Coastal Resource Management Program
CT DEEP	Connecticut Department of Energy and Environmental Protection
CTV	crew transfer vessel
CVA	Certified Verification Agent
CWA	Clean Water Act of 1972
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
dB	decibel
dBA	A-weighted decibel
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DFO	Fisheries and Oceans Canada
DFWMR	Division of Fish, Wildlife & Marine Resources (New York State)
DO	dissolved oxygen
DOI-MMS	Department of the Interior, Minerals Management Service
DoN	U.S. Department of the Navy
DP	dynamic positioning
DPS	distinct population segment
DPV	dynamically positioned vessel
DSM	digital surface model
DTM	digital terrain model
DVAR	dynamic volt-amperes-reactive
DWSF	Deepwater Wind South Fork, LLC
DWT	dead-weight tonnage
DWW	Deepwater Wind New England, LLC
EC4	Executive Climate Change Coordinating Council
ECNYS	Ecological Communities of New York State
EcoMon	Ecosystem Monitoring
EFH	essential fish habitat
EM&CP	environmental management and construction plan

EMF	electromagnetic field
EMS	emergency medical services
ENC	Electronic Navigational Charts
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERC	Emission Reduction Credits
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FD	Fire Department
FDR	Facility Design Report
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
FHWA	Federal Highway Administration
FIR	Fabrication and Installation Report
FMP	Fishery Management Plan
FPV	fallpipe vessel
FRES	Fire, Rescue, and Emergency Services
ft/s	foot (feet) per second
ft^2	square foot (feet)
FTE	full-time equivalent
FWRAM	Full Waveform Range-dependent Acoustic Model
g	gram(s)
g C m^{-2} day^{-1}	gram(s) of carbon per meter square per day
G&G	geophysical and geotechnical
GARFO	NOAA Greater Atlantic Regional Fisheries Office
GBS	gravity-based structure
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
GLD	Geographic Location Description
GW	gigawatt(s)
HAP	hazardous air pollutant
HDD	horizontal directional drilling
HDPE	high-density polyethylene
HF	high-frequency
HFC	high-frequency cetaceans
hp	horsepower
HRG	high-resolution geophysical
HRVEA	Historic Resources Visual Effects Analysis
HSD	hydro sound damper
HVAC	high-voltage alternating current
HVDC	high-voltage direct current

HYCOM	Hybrid Coordinate Ocean Model
Hz	hertz
IBTrACS	International Best Tracks for Climate Stewardship
IHA	Incidental Harassment Authorization
IOWAGA	Integrated Ocean Waves for Geophysical and Other Applications
IPF	impact-producing factor
km	kilometer(s)
KOP	key observation point
kV	kilovolt(s)
kW	kilowatt(s)
LE	exposure thresholds
LF	low-frequency
LFC	low-frequency cetaceans
LICAP	Long Island Commission on Aquifer Protection
lidar	light detection and ranging
LIPA	Long Island Power Authority
LIRR	Long Island Railroad
LNMs	Local Notice to Mariners
LOA	length overall
L_P	unweighted sound pressure level
$L_{P,flat}$	flat-peak sound pressure
L_{PK}	peak sound pressure
LSZ	landscape similarity zone
m	meter(s)
M.G.L.	Massachusetts General Law
m/s	meter(s) per second
m^2	square meter(s)
m^3	cubic meter(s)
MACEC	Massachusetts Clean Energy Center
MACZM	Massachusetts Office of Coastal Zone Management
MADMF	Massachusetts Department of Marine Fisheries
MARPOL	marine pollution
MassDEP	Massachusetts Department of Environment Protection
MBES	multibeam echo sounder
MERRA-2	Modern-Era Retrospective Analysis for Research and Applications, Version 2
MFC	mid-frequency cetaceans
Mft^3	million cubic feet
mG	milligauss
mg/L	milligram(s) per liter
MHWL	mean high water line
mm	millimeter(s)
Mm^3	million cubic meters

MMPA	Marine Mammal Protection Act of 1972
MMS	Minerals Management Service
MNL	Marine Navigation Lighting
MPa	megaPascal(s)
MRE	Marine Renewable Energy
MRIP	Marine Recreational Information Program
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSL	mean sea level
mV/m	millivolt(s)/meter
MVA	megavolt(s) amperes
MVAr	megavolt(s) amperes-reactive
MW	megawatt(s)
MWA	Maximum Work Area
N_2O	nitrous oxide
NAA	nonattainment area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NASA	National Aeronautics and Space Administration
NBPA	New Bedford Port Authority
NCCA	National Coastal Condition Assessment
NCCR	National Coastal Condition Report
NCDC	National Climatic Data Center
NCEP	National Centers for Environmental Prediction
NCODA	Navy Coupled Ocean Data Assimilation
NDBC	National Data Buoy Center
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NESEC	Northeast States Emergency Consortium
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGO	nongovernmental organization
NHPA	National Historic Preservation Act
NJDEP	New Jersey Department of Environmental Protection
nm	nautical mile(s)
NMFS	National Marine Fisheries Service
NNSR	nonattainment new source review
NO2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NODE	Navy OPAREA Density Estimate
NOx	nitrogen oxide(s)
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRC	National Research Council
NRHP	National Register of Historic Places
NSRA	navigational safety risk assessment

NSR	new source review
NTL	Notice to Lessee
NWI	National Wetlands Inventory
NWR	National Wildlife Refuge
NYAC	New York Archaeological Council
NYCRR	New York Codes, Rules and Regulations
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYPSC	New York Public Service Commission
NYSDAM	New York State Department of Agriculture and Markets
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
NYSDPS	New York State Department of Public Service
NYSERDA	New York State Energy Research and Development Authority
NYSOGS	New York State Office of General Services
NYSOPRHP	New York State Office of Parks, Recreation and Historic Preservation
NYSPSC	New York State Department of Public Service Commission
O&M	operations and maintenance
OCS	outer continental shelf
OCS Lands Act	Outer Continental Shelf Lands Act
OPAREA	Special Operating Area
OSAMP	Ocean Special Area Management Plan
OSRP	Oil Spill Response Plan
OSS	offshore substation
OW	otariid pinnipeds in water
PAH	polycyclic aromatic hydrocarbon
PBN	*Providence Business News*
PCB	polychlorinated biphenyl
PD	Police Department
PLGR	pre-lay grapnel run
PM	particulate matter
PM_{10}	particulate matter less than 10 micrometers in aerodynamic diameter
$PM_{2.5}$	particulate matter less than 2.5 micrometers in aerodynamic diameter
PPA	Power Purchase Agreement
ppm	part(s) per million
PPW	phocid pinnipeds in water
Project	South Fork Wind Farm and South Fork Export Cable
PSD	Prevention of Significant Deterioration
PSL	New York Public Service Law
PSO	Protected Species Observer
PTS	permanent threshold shift
PV	Plan View

QMA	Qualified Marine Archaeologist
RCNM	Roadway Construction Noise Model
RI CRMC	Rhode Island Coastal Resources Management Council
RI CRMP	Rhode Island Coastal Resources Management Program
RI DEM	Rhode Island Department of Environmental Management
RI HPHC	Rhode Island Historical Preservation and Heritage Commission
RI-MA WEA	Rhode Island/Massachusetts Wind Energy Area
rms	root mean square
ROI	region of influence
ROW	right(s)-of-way
RV	recreational vehicle
SAP	site assessment plan
SAPVE	Study Area for Potential Visual Effects
SASS	Scenic Area of Statewide Significance
SAV	submerged aquatic vegetation
SCADA	Supervisory Control and Data Acquisition
SCFWH	Significant Coastal Fish and Wildlife Habitats
SD	standard deviation
SEL	sound exposure limit
SERDP	Strategic Environmental Research and Development Program
SFEC	South Fork Export Cable
SFEC - NYS	South Fork Export Cable – New York State Territorial Waters
SFEC - OCS	South Fork Export Cable – Outer Continental Shelf Waters
SFEC - Onshore	South Fork Export Cable – Onshore East Hampton
SFWF	South Fork Wind Farm
SHPO	State Historic Preservation Office
SIP	state implementation plan
SO_2	sulfur dioxide
SPCC	spill prevention, control, and countermeasure
SPDES	State Pollutant Discharge Elimination System
SPI	Sediment Profile Imaging
SPL	sound pressure level
SWPPP	Stormwater Pollution Prevention Plan
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Office(r)
TNC	The Nature Conservancy
tpy	tons per year
TSS	total suspended solids
TTS	temporary threshold shift
U.S.C.	*United States Code*
UDP	unanticipated discovery plan

URI	University of Rhode Island
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USN	Unique Site Number
UTC	Coordinated Universal Time
UXO	unexploded ordnance
VIA	Visual Impact Assessment
VMS	vessel monitoring system
VOC	volatile organic compound
VRA	Visual Resource Assessment
VRAP	Visual Resource Assessment Procedure
VTR	Vessel Trip Report
WEA	Wind Energy Area
WTG	wind turbine generator
WTS	Waterson Terminal Services
XLPE	cross-linked polyethylene
yd^3	cubic yard(s)
ZOI	zone of influence
ZVI	zone of visual influence

Glossary and Terms

Term	Definition
Certified Verification Agent (CVA)	An individual or organization, experienced in the design, fabrication, and installation of offshore marine facilities or structures, who will conduct specified third-party reviews, inspections, and verifications in accordance with 30 CFR 585.705.
Deepwater Wind South Fork, LLC (DWSF)	Owner and future operator of the Project, the Project Applicant.
Environmental Protection Measure (EPM)	Measure proposed to avoid or minimize potential impacts.
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 (GBS). Monopile is the selected foundation type for the project.
horizontal directional drill (HDD)	Subsurface installation technique that will create an underground conduit through which the SFEC – Offshore will come ashore and join the SFEC - Onshore within a transition vault (i.e., the sea-to-shore transition). HDD avoids impacts to the beach and near shore environment.
Jet plow	Method of submarine cable installation equipment that primarily uses water jets to fluidize soil, temporarily opening a channel to enable the cable to be lowered under its own weight or be pushed to the bottom of the trench via a cable depressor.
Impact determinations	Direct or indirect; short term or long term; and negligible, minor, moderate, or major.
Impact Producing Factor (IPF)	Project activities and infrastructure that could impact resources were identified as IPFs.
Inter-array Cable	AC cable that connects individual WTGs and transfers power between the WTGs and the OSS. The cable contains three conductors and a series of screens, insulators, fillers, sheathing, armor, and fiber optic communications cables.
Landing site	Locations on the shore of East Hampton, New York considered for the Sea-to-Shore Transition.
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.

Term	Definition
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.
Offshore Substation (OSS)	Collects electric energy generated by the WTG through the Inter-array Cables for transmission through the SFEC. Mounted on dedicated foundation or co-located on one foundation with a WTG.
Operations and Maintenance (O&M) Facility	An ancillary facility of the SFWF that will be located either in a port in Montauk in East Hampton, New York or at Quonset Point in North Kingstown, Rhode Island. The SFWF O&M facility will support remote monitoring of the wind farm and offshore maintenance activities.
Power Purchase Agreement (PPA)	A financial agreement between two parties. This Project has a PPA with Long Island Power Authority.
pre-lay grapnel run (PLGR)	Process to remove possible obstructions and debris, such as abandoned fishing nets, wires, and hawsers, along the inter-array and SFEC - Offshore.
scour protection	Consists of engineered rock that may be placed at the base of each foundation to prevent undesirable seabed erosion.
Sea-to-Shore Transition	Connects the SFEC – NYS to the SFEC - Onshore. Comprised of the onshore transition vault where the offshore cable and the onshore cable will be spliced together and the underground conduit that leads from onshore transition vault to the exit point of the horizontal directional drill (HDD).
SFEC – Interconnection Facility	New facility to be located adjacent to the existing LIPA East Hampton substation. This facility is also referred to as "SFEC Onshore Substation" in the COP Appendices.
SFEC - Offshore	The export cable located in both federal waters (SFEC – OCS) and New York State territorial waters (SFEC – NYS), and the sea-to-shore transition vault in East Hampton, New York. – SFEC – OCS: the submarine segment of the export cable buried beneath the seabed within federal waters on the OCS from the OSS to the boundary of New York State territorial waters. – SFEC – NYS: the submarine segment of the export cable buried beneath the seabed within state territorial waters from the boundary of New York State territorial waters to a sea-to-shore transition vault located in the town of East Hampton on Long Island, Suffolk County, New York.
SFEC - Onshore	The terrestrial underground segment of the export cable from the sea-to-shore transition vault to a new SFEC - Interconnection Facility where the SFEC will interconnect with the Long Island Power Authority (LIPA) electric transmission and distribution system in the town of East Hampton on Long Island, Suffolk County, New York.

Term	Definition
South Fork Export Cable (SFEC)	Comprised of an alternating current (AC) electric cable that will connect the SFWF to the existing mainland electric grid in East Hampton, New York. The SFEC includes both the SFEC – Offshore and SFEC – Onshore.
South Fork Wind Farm (SFWF)	Comprised of up to 15 wind turbine generators (WTGs, turbines), submarine cables between the WTGs (Inter-array Cables), and an offshore substation (OSS), all of which will be located within federal waters on the outer continental shelf (OCS). SFWF also includes an Operations and Maintenance (O&M) facility that will be located onshore.
Supervisory Control and Data Acquisition (SCADA)	Fiber optic system embedded in the Project cables that provides remote wind farm monitoring and control between the WTG, substations, and remote operation center(s). The SCADA provides a live status of environmental conditions within the SFWF, as well as mechanical and electrical state of each WTG.
Wind Turbine Generator (WTG)	Electricity-generating wind turbine made of a tower, nacelle, rotor, and blades, with a nameplate capacity of 6 to 12 megawatts (MW) per turbine.

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Section 1—Introduction

This Construction and Operations Plan (COP) is being submitted by Deepwater Wind South Fork, LLC (DWSF, the Applicant) to support the siting and development of the South Fork Wind Farm (SFWF) and the South Fork Export Cable (SFEC), collectively the Project.

The purpose of this COP is to provide information about the Project to the Bureau of Ocean Energy Management (BOEM) and other federal and state agencies. The COP was prepared in accordance with Title 30 of the *Code of Federal Regulations* (CFR) Part 585 (30 CFR § 585), BOEM's *Guidelines for Information Requirements for a Renewable Energy Construction and Operations Plan (COP)* (BOEM, 2016), and other BOEM policy, guidance and regulations as summarized in Table 1.0-1. Table 1.0-2 includes the relevant lease stipulations for the Project. The COP includes the following:

- A description of all planned facilities, including onshore and support facilities
- A description of all proposed activities, including construction activities, commercial operations, maintenance, and conceptual decommissioning plans
- The basis for the analysis of the environmental and socioeconomic impacts and operational integrity of the proposed construction, operation, maintenance, and decommissioning activities
- Information to support relevant federal permit applications and consultations.

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Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement	Compliance Statement/Location within COP
30 CFR §585.105(a)	
1) Design your projects and conduct all activities in a manner that ensures safety and will not cause undue harm or damage to natural resources, including their physical, atmospheric, and biological components to the extent practicable; and take measures to prevent unauthorized discharge of pollutants including marine trash and debris into the offshore environment.	Sections 1-4 Appendices A-AA
30 CFR §585.621(a-g)	
a) The project will conform to all applicable laws, implementing regulations, lease provisions, and stipulations or conditions of the lease.	Section 1.3, Regulatory Framework
b) The project will be safe.	Appendix E, Safety Management System Appendix F, Project Supplemental Information Appendix G, Project Plans and Conceptual Drawings Appendix H, Geophysical and Geotechnical Survey Reports Appendix X, Navigational Safety Risk Assessment
c) The project will not unreasonably interfere with other uses of the outer continental shelf (OCS), including those involved with National security or defense.	Section 4.6.4, Recreation and Tourism Section 4.6.5, Commercial and Recreational Fishing Section 4.6.6, Commercial Shipping Section 4.6.7, Coastal Land Use and Infrastructure Section 4.6.8, Other Marine Uses Appendix X, Navigational Safety Risk Assessment

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement	Compliance Statement/Location within COP
d) The project will not cause undue harm or damage to natural resources; life (including human and wildlife); property; the marine, coastal, or human environment; or sites, structures, or objects of historical or archeological significance.	Executive Summary, specifically Table ES-1 Section 4, Site Characterization and Assessment of Potential Impacts
e) The project will use the best available and safest technology.	Section 2.3 Appendix G, Project Plans and Conceptual Drawings
f) The project will use best management practices.	Executive Summary, specifically Table ES-1 Section 4.7, Summary of Potential Impacts and Environmental Protection Measures
g) The project will use properly trained personnel.	DWSF will comply.
30 CFR § 585.626(a) - You must submit the results of the following surveys for the proposed site(s) of your facility(ies). Your COP must include the following information:	
1) Shallow hazards: The results of the shallow hazards survey with supporting data. Information sufficient to determine the presence of the following features and their likely effects on your proposed facility, including: (i) Shallow faults; (ii) Gas seeps or shallow gas; (iii) Slump blocks or slump sediments; (iv) Hydrates; or (v) Ice scour of seabed sediments.	Appendix H, Geophysical and Geotechnical Survey Reports

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
2) Geological survey relevant to the design and siting of your facility.	The results of the geological survey with supporting data. Assessment of: (i) Seismic activity at your proposed site; (ii) Fault zones; (iii) The possibility and effects of seabed subsidence; and (iv) The extent and geometry of faulting attenuation effects of geologic conditions near your site.	Appendix H, Geophysical and Geotechnical Survey Reports Appendix I, Hydrodynamic and Sediment Transport Modeling Results DWSF requested to submit the information necessary to satisfy 30 CFR § 585.626(a)(2) for the entire MWA following completion of additional survey in that area; that survey has been completed and is included in Appendix H.
3) Biological: The results of the biological survey with supporting data. A description of the results of biological surveys used to determine the presence of:	Live bottoms and hard bottoms.	Section 4.2.3, Geological Resources Section 4.3.2, Benthic and Shellfish Resources Appendix H4, Sediment Profile Imaging and Benthic Survey Report Appendix N1, Pre-Construction Sediment Profile and Plan View Imaging Benthic Assessment Report DWSF requested to submit the information necessary to satisfy 30 CFR §§ 585.626(a)(3) for the entire MWA following completion of additional survey in that area; that survey has been completed and is included in Appendix H4 and Appendix N1.

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	Topographic features.	Section 4.2.3, Geological Resources Section 4.2.4, Physical Oceanography and Meteorology Appendix H, Geophysical and Geotechnical Survey Reports DWSF requested to submit the information necessary to satisfy 30 CFR §§ 585.626(a)(3) for the entire MWA following completion of addition survey in that area; that survey has been completed and is included in Appendix H.
	Surveys of other marine resources such as fish populations (including migratory populations).	Section 4.3.2, Benthic and Shellfish Resources Section 4.3.3, Finfish and Essential Fish Habitat Appendix N1, Pre-Construction Sediment Profile and Plan View Imaging Benthic Assessment Report Appendix O, Essential Fish Habitat Assessment
	Marine mammals.	Section 4.3.4, Marine Mammals Appendix P1, Assessment of Impacts to Marine Mammals, Sea Turtles, and Sturgeon Appendix P2, Animal Exposure Modelling for Foundation Installation

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	Sea turtles.	Section 4.3.5, Sea Turtles Appendix P1, Assessment of Impacts to Marine Mammals, Sea Turtles and Sturgeon Appendix P2, Animal Exposure Modelling for Foundation Installation
	Sea birds.	Section 4.3.6, Avian Species Appendix Q, Avian and Bat Risk Assessment
4) Geotechnical survey: The results of your sediment testing program with supporting data, the various field and laboratory test methods employed, and the applicability of these methods as they pertain to the quality of the samples, the type of sediment, and the anticipated design application. You must explain how the engineering properties of each sediment stratum impact the design of your facility. In your explanation, you must describe the uncertainties inherent in your overall testing program, and the reliability and applicability of each test method.	(i) The results of a testing program used to investigate the stratigraphic and engineering properties of the sediment that may impact the foundations or anchoring systems for your facility.	Section 4.2.3, Geological Resources Appendix H, Geophysical and Geotechnical Survey Reports Appendix I, Hydrodynamic and Sediment Transport Modeling Results DWSF has requested to submit additional information necessary to satisfy 30 CFR §§ 585.626(a)(4)(ii) following completion of additional survey in that area.
	(ii) The results of adequate *in situ* testing, boring, and sampling at each foundation location, to examine all important sediment and rock strata to determine its strength classification, deformation properties, and dynamic characteristics.	
	(iii) The results of a minimum of one deep boring (with soil sampling and testing) at each edge of the project area and within the project area as needed to determine the vertical and lateral variation in seabed conditions and to provide the relevant geotechnical data required for design.	

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
5) Archaeological resources. The results of the archaeological resource survey with supporting data.	A description of the historic and prehistoric archaeological resources, as required by the National Historic Preservation Act (NHPA) (54 *United States Code* [U.S.C.] 300101 *et. seq*.), as amended.	Section 4.4, Cultural Resources Appendix R, Marine Archaeological Resources Assessment Appendix S - Archaeological Resources Report-Onshore Appendix T - Historic Architectural Resources Survey Report DWSF requested to submit the information necessary to satisfy 30 CFR §§ 585.626(a)(5) for the entire MWA following completion of additional survey in that area; that survey has been completed and is included in Appendix R.
6) Overall site investigation. An overall site investigation report for your facility that integrates the findings of your shallow hazards surveys and geologic surveys, and, if required, your subsurface surveys with supporting data.	An analysis of the potential for: (i) Scouring of the seabed;	The site investigation report, provided in Appendix H (Geophysical and Geotechnical Survey Reports), integrates the findings of the shallow hazards survey and geological surveys. DWSF has requested to submit the information necessary to satisfy 30 CFR §§ 585.626(a)(6)(i) through (xi) in the Facility Design Report (FDR).
	(ii) Hydraulic instability;	
	(iii) The occurrence of sand waves;	
	(iv) Instability of slopes at the facility location;	
	(v) Liquefaction, or possible reduction of sediment strength due to increased pore pressures;	
	(vi) Degradation of subsea permafrost layers;	
	(vii) Cyclic loading;	
	(viii) Lateral loading;	
	(ix) Dynamic loading;	

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	(x) Settlements and displacements;	
	(xi) Plastic deformation and formation collapse mechanisms; and	
	(xii) Sediment reactions on the facility foundations or anchoring systems.	
30 CFR § 585.626(b) - Your COP must include the following project-specific information, as applicable.		
1) Contact Information.	The name, address, e-mail address, and phone number of an authorized representative.	Section 1.6.1, Authorized Representative and Operator
2) Designation of operator, if applicable	As provided in § 585.405.	Section 1.6.1, Authorized Representative and Operator
3) The construction and operation concept	A discussion of the objectives,	Section 1.2, Project Purpose
	Description of the proposed activities,	Section 1.1, Project Overview Section 3, Project Description
	Tentative schedule from start to completion, and	Section 1.5, Tentative Schedule
	Plans for phased development, as provided in § 585.629.	Not applicable - the Project is a single, complete, and independent project that will not be developed in phases
4) Commercial lease stipulations and compliance	A description of the measures you took, or will take, to satisfy the conditions of any lease stipulations related to your proposed activities.	Section 1.1, Project Overview, Table 1.0-2
5) A location plat	The surface location and water depth for all proposed structures, facilities, and appurtenances located both offshore and onshore, including all anchor/mooring data.	Section 1.1, Project Overview, Figure 1.1-1 Appendix F, Project Supplemental Information Appendix G, Project Engineering Plans and Construction Drawings

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	The surface location and water depth for all existing structures, facilities, and appurtenances located both offshore and onshore, including all anchor/mooring data.	Section 1.1, Project Overview, Figures 1.1-1 and 1.1-2 Section 3.1.3.1, Ports, Vessels and Vehicles, and Material Transportation, Figure 3.1-7
6) General structural and project design, fabrication, and installation.	Information for each type of structure associated with your project and, unless BOEM provides otherwise, how you will use a Certified Verification Agent (CVA) to review and verify each stage of the project.	Section 1.6.3, Certified Verification Agent Nominations Section 3.1.1, (SFWF) Project Location Section 3.1.2, SFWF Facilities Section 3.2.1, (SFEC) Project Location Section 3.2.2, SFEC Facilities Appendix C, CVA Nomination Appendix F, Project Supplemental Information Appendix G, Project Plans and Conceptual Drawings
7) All cables and pipelines, including cables on project easements.	Location, design and installation methods, testing, maintenance, repair, safety devices, exterior corrosion protection, inspections, and decommissioning.	Section 2, Project Siting and Future Activities Section 3.1.2.3, (SFWF) Inter-Array Cable Section 3.1.3.3, Inter-Array Cable Installation Section 3.1.5.4, (Operations and Maintenance) Inter-Array Cable Section 3.2, South Fork Export Cable Appendix E, Safety Management System Appendix F, Project Supplemental Information

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
8) A description of the deployment activities	Safety, prevention, and environmental protection features or measures that you will use.	Section 1.6.5, Safety Management System Section 4.2.2, Water Quality and Water Resources Section 4.7, Summary of Potential Impacts and Environmental Protection Measures Appendix D, Oil Spill Response Plan Appendix E, Safety Management System Appendix F, Project Supplemental Information Appendix X, Navigational Safety Risk Assessment
9) A list of solid and liquid wastes generated	Disposal methods and locations.	Section 4.1.5, Discharges and Releases Appendix F, Project Supplemental Information
10) A listing of chemical products used (if stored volume exceeds Environmental Protection Agency (EPA) Reportable Quantities).	A list of chemical products used; the volume stored on location; their treatment, discharge, or disposal methods used; and the name and location of the onshore waste receiving, treatment, and/or disposal facility. A description of how these products will be brought onsite, the number of transfers that may take place, and the quantity that that will be transferred each time.	Appendix D, Oil Spill Response Plan Appendix F, Project Supplemental Information
11) A description of any vessels, vehicles, and aircraft you will use to support your activities.	An estimate of the frequency and duration of vessel/vehicle/aircraft traffic.	Section 2.3, Review of Technologies and Installation Methods Section 3.1.3, (SFWF) Construction Section 3.2.3, (SFEC) Construction Section 4.1.7, Traffic (Vessels, Vehicles, and Aircraft) Appendix X, Navigational Safety Risk Assessment

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
12) A general description of the operating procedures and systems.	(i) Under normal conditions.	Section 1.6, Other Project Information Section 3.1.5, (SFWF) Operations and Maintenance Section 3.2.5, (SFEC) Operations and Maintenance Appendix F, Project Supplemental Information
	(ii) In the case of accidents or emergencies, including those that are natural or manmade.	Section 3.1.5, (SFWF) Operations and Maintenance Section 3.2.5, (SFEC) Operations and Maintenance Appendix D, Oil Spill Response Appendix E, Safety Management System Appendix F, Project Supplemental Information
13) Decommissioning and site clearance procedures	A discussion of general concepts and methodologies.	Section 2.3, Review of Technologies and Installation Methods Section 3.1.6, (SFWF) Conceptual Decommissioning Section 3.2.6, (SFEC) Conceptual Decommissioning
14) A listing of all Federal, State, and local authorizations, approvals, or permits that are required to conduct the proposed activities, including commercial operations.	(i) The U.S. Coast Guard (U.S. Coast Guard), U.S. Army Corps of Engineers (USACE), and any other applicable authorizations, approvals, or permits, including any Federal, State or local authorizations pertaining to energy gathering, transmission or distribution (e.g., interconnection authorizations).	Section 1.3, Regulatory Framework Appendix A, Coastal Zone Management Consistency Statements
	(ii) A statement indicating whether you have applied for or obtained such authorization, approval, or permit.	Section 1.3.1, Federal Permits, Approvals, and Consultations

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
15) Your proposed measures for avoiding, minimizing, reducing, eliminating, and monitoring environmental impacts.	A description of the measures you will use to avoid or minimize adverse impacts and any potential incidental take before you conduct activities on your lease, and how you will mitigate environmental impacts from your proposed activities, including a description of the measures you will use as required by subpart H of this part.	Section 4.7, Summary of Potential Impacts and Proposed Environmental Protection Measures
16) Information you incorporate by reference	A listing of the documents you referenced.	Section 5, References
17) A list of agencies and persons with whom you have communicated, or with whom you will communicate, regarding potential impacts associated with your proposed activities.	Contact information and issues discussed.	Section 1.4, Agency and Stakeholder Outreach
18) Reference	A list of any document or published source that you cite as part of your plan. You may reference information and data discussed in other plans you previously submitted or that are otherwise readily available to BOEM.	Section 5, References Appendices A–BB
19) Financial assurance	Statements attesting that the activities and facilities proposed in your COP are or will be covered by an appropriate bond or security, as required by §§ 585.515 and 585.516.	Section 1.6.2, Financial Assurance
20) CVA nominations for reports required in subpart G of this part.	CVA nominations for reports in subpart G of this part, as required by § 585.706, or a request for a waiver under § 585.705(c).	Section 1.6.3, Certified Verification Agent Nomination Appendix C, Certified Verification Agent Nomination

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
21) Construction schedule	A reasonable schedule of construction activity showing significant milestones leading to the commencement of commercial operations.	1.5, Tentative Schedule
22) Air quality information	As described in § 585.659 of this section.	Section 4.1.8, Air Emissions Section 4.2.1, Air Quality Appendix L, Air Emissions Inventory
23) Other information	Additional information as required by BOEM.	N/A
30 CFR § 585.627(a) - You must submit with your COP detailed information to assist BOEM in complying with NEPA and other relevant laws. Your COP must describe those resources, conditions, and activities listed in the following table that could be affected by your proposed activities, or that could affect the activities proposed in your COP, including:		
1) Hazard Information	Meteorology and oceanography.	Section 4.2.4, Physical Oceanography and Meteorology
	Sediment transport, geology, and shallow geological or manmade hazards.	Section 4.2.3, Geological Resources Appendix H, Geophysical and Geotechnical Survey Reports Appendix I, Hydrodynamic and Sediment Transport Modeling Results
2) Water Quality	Turbidity and total suspended solids from construction.	Section 2.3, Review of Technologies and Installation Methods Section 4.1.2, Sediment Suspension and Deposition Section 4.2.2, Water Quality and Water Resources Appendix I, Hydrodynamic and Sediment Transport Modeling Results

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
3) Biological resources	Benthic communities.	Section 4.3.2, Benthic and Shellfish Resources Appendix N1, Pre-Construction Sediment Profile and Plan View Imaging Benthic Assessment Report
	Marine mammals.	Section 4.3.4, Marine Mammals Appendix P1, Assessment of Impacts to Marine Mammals, Sea Turtles, and Sturgeon
	Sea turtles.	Section 4.3.5, Sea Turtles Appendix P1, Assessment of Impacts to Marine Mammals, Sea Turtles, and Sturgeon
	Coastal and marine birds.	Section 4.3.6, Avian Species Appendix Q, Avian and Bat Risk Assessment
	Fish and shellfish.	Section 4.3.3, Finfish and Essential Fish Habitat Appendix N1, Pre-Construction Sediment Profile and Plan View Imaging Benthic Assessment Report Appendix O, Essential Fish Habitat Assessment
	Plankton.	Section 4.3.3, Finfish and Essential Fish Habitat Appendix O, Essential Fish Habitat Assessment

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	Seagrasses.	Section 4.3.1, Coastal and Terrestrial Habitat Section 4.3.2, Benthic and Shellfish Resources Appendix O, Essential Fish Habitat Assessment
	Plant life.	Section 4.3.1, Coastal and Terrestrial Habitat Section 4.3.3, Finfish and Essential Fish Habitat Appendix O, Essential Fish Habitat Assessment
4) Threatened or endangered species	As defined by the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.).	Section 4.3, Biological Resources Appendix P1, Assessment of Impacts to Marine Mammals, Sea Turtles, and Sturgeon Appendix Q, Avian and Bat Risk Assessment
5) Sensitive biological resources or habitats	Essential fish habitat.	Section 4.3.3, Finfish and Essential Fish Habitat Appendix O, Essential Fish Habitat Assessment
	Refuges and preserves.	Section 4.6.8, Other Marine Uses
	Special management areas identified in coastal management programs, sanctuaries, rookeries.	Section 4.6.8, Other Marine Uses
	Hard bottom habitat.	Section 4.3.2, Benthic and Shellfish Resources Appendix H, Geophysical and Geotechnical Survey Reports Appendix N1, Pre-Construction Sediment Profile and Plan View Imaging Benthic Assessment Report

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	Chemosynthetic communities.	N/A
	Calving grounds.	N/A
	Barrier islands, beaches, and dunes.	Section 4.3.1, Coastal and Terrestrial Habitat
	Wetlands.	Section 4.3.1, Coastal and Terrestrial Habitat
6) Archaeological resources	As required by the NHPA (54 U.S.C. 300101 et seq.), as amended.	4.4, Cultural Resources Appendix R, Marine Archaeological Resources Assessment Appendix S, Archaeological Resources Report-Onshore Appendix T, Historic Architectural Resources Survey Appendix W – Historic Resources Visual Effects Analysis Appendix BB1 – O&M Facility (Visual Effects Analysis) Appendix BB2 – O&M Facility (Archaeology)
7) Social and Economic resources	Employment.	4.6, Socioeconomic Resources 4.6.1, Population, Economy, and Employment Appendix AA, Economic Development and Jobs Analysis Report
	Existing offshore and coastal infrastructure (including major sources of supplies, services, energy, and water).	4.6.3, Public Services 4.6.6, Commercial Shipping 4.6.7, Coastal Land Use and Infrastructure 4.6.8, Other Marine Uses

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
	Land use.	4.4.1, Above Ground Historic Properties 4.6.7, Coastal Land Use and Infrastructure
	Subsistence resources and harvest practices.	4.6.5, Commercial and Recreational Fishing 4.6.9, Environmental Justice
	Recreation, recreational and commercial fishing (including typical fishing seasons, location, and type).	Section 4.6.5, Commercial and Recreational Fishing Appendix B, Fisheries Communication and Outreach Plan Appendix Y, Commercial and Recreational Fisheries Technical Report
	Minority and lower income groups.	Section 4.6.1, Population, Economy, and Employment Section 4.6.2, Housing and Property Values Section 4.6.9, Environmental Justice
	Coastal zone management programs.	Section 1.3.4, Coastal Zone Management Act Consistency Appendix A, Coastal Zone Management Federal Consistency Statements
	Viewshed.	Section 4.1.9, Visible Structures Section 4.5, Visual Resources Appendix U, Visual Resource Assessment, SFEC Onshore Substation Appendix V, Visual Impact Assessment, SFWF Appendix W, Historic Resources Visual Effects Analysis

Table 1.0-1. Summary of Information Requirements for a Construction and Operations Plan
Details on the federal requirements for a COP and where to find relevant information for the SFWF and SFEC

Requirement		Compliance Statement/Location within COP
8) Coastal and marine uses	Military activities.	Section 4.6.6, Commercial Shipping Section 4.6.8, Other Marine Uses Appendix X, Navigational Safety Risk Assessment
	Vessel traffic.	
	Energy and nonenergy mineral exploration or development.	
9) Consistency Certification	As required by the Coastal Zone Management Act (CZMA): (i) 15 CFR part 930, subpart D, for noncompetitive leases. (ii) 15 CFR part 930, subpart E, for competitive leases.	Section 1.3.4, Coastal Zone Management Act Consistency Appendix A, Coastal Zone Management Consistency Statements
10) Other resources, conditions, and activities	As identified by BOEM.	N/A
30 CFR § 585.627(b) - You must submit one paper copy and one electronic copy of your consistency certification. Your consistency certification must include:		
CZMA Consistency Certification	1) One copy of your consistency certification under subsection 307(c)(3)(B) of the CZMA (16 U.S.C. 1456(c)(3)(B)) and 15 CFR 930.76 stating that the proposed activities described in detail in your plans comply with the State(s) approved coastal management program(s) and will be conducted in a manner that is consistent with such program(s); 2) ‘‘Information,’’ as required by 15 CFR 930.76(a) and 15 CFR 930.58(a)(2), and ‘‘Analysis,’’ as required by 15 CFR 930.58(a)(3).	Section 1.3.4, Coastal Zone Management Act Consistency Appendix A, Coastal Zone Management Consistency Statements
30 CFR § 585.627(c)		
Oil Spill Response Plan	In accordance with 30 Part 254.	Appendix D, Oil Spill Response Plan
30 CFR § 585.627(d)		
Safety Management System	In accordance with 30 CFR 585.810.	Appendix E, Safety Management System

Table 1.0-2. Summary of Lease Requirements for SFWF and SFEC

Details on the lease termss and stipulations relevant to construction and operations for SFWF and SFEC

Lease Requirements	Description	Compliance Statement/ Location within COP
Section 4: Payments (a)	The lessee must make all rent payments to the Lessor in accordance with applicable regulations, unless otherwise specified Appendix B.	DWSF will comply.
Section 4: Payments (b)	The Lessee must make all operating fee payments to the Lessor in accordance with applicable regulations in 30 CFR Part 585, as specified in Addendum "B".	DWSF will comply.
Section 5: Plans	The Lessee may conduct those activities described in Addendum "A" only in accordance with a Site Assessment Plan (SAP) or COP approved by the Lessor. The Lessee may not deviate from an approved SAP or COP except as provided in applicable regulations in 30 CFR Part 585.	Understood.
Section 6: Associated Project Easements	Pursuant to 30 CFR 585.200(b), the Lessee has the right to one or more project easements, without further competition, for the purpose of installing, gathering, transmission, and distribution cables, pipelines, and appurtenances on the OCS, as necessary for the full enjoyment of the lease, and under applicable regulations in 30 CFR Part 585. As part of submitting a COP for approval, the Lessee may request that one or more easement(s) be granted by the Lessor. If the Lessee requests that one or more easements by granted when submitting a COP for approval, such project easements will be granted by the Lessor in accordance with the Act and applicable regulations in 30 CFR Part 585 upon approval of the COP in which the Lessee has demonstrated a need for such easements. Such easements must be in a location acceptable to the Lessor and will be subject to such conditions as the Lessor may require. The project easements that would be issued in conjunction with an approved COP under this lease will be described in Addendum "D" to this lease, which will be updated as necessary.	With approval of this COP, DWSF requests that BOEM issue a project easement for the portions of SFEC located in federal waters, under the applicable regulations in 30 CFR Part 585.

Table 1.0-2. Summary of Lease Requirements for SFWF and SFEC

Details on the lease termss and stipulations relevant to construction and operations for SFWF and SFEC

Lease Requirements	Description	Compliance Statement/ Location within COP
Section 7: Conduct of Activities	The Lessee must conduct, and agrees to conduct, all activities in the leased area in accordance with an approved SAP or COP, and with all applicable laws and regulations.	DWSF will comply.
Section 10: Financial Assurance	The Lessee must provide and maintain at all times a surety bond(s) or other form(s) of financial assurance approved by the Lessor in the amount specified in Addendum "B."	Section 1.6.2, Financial Assurance
Section 13: Removal of Property and Restoration of the Leased Area on Termination of Lease.	Unless otherwise authorized by the Lessor, pursuant to the applicable regulations in 30 CFR Part 585, the Lessee must remove or decommission all facilities, projects, cables, pipelines, and obstructions and clear the seabed of all obstructions created by activities on the leased area, including any project easements within two years following lease termination, whether by expiration, cancellation, contraction, or relinquishment, in accordance with any approved SAP, COP, or approved Decommissioning Application, and applicable regulations in 30 CFR Part 585.	Section 3.1.6, (SFWF) Conceptual Decommissioning Section 3.2.6, (SFEC) Conceptual Decommissioning
Section 14: Safety Requirements	The Lessee must (a) Maintain all places of employment for activities authorized under this lease in compliance with occupational safety and health standards and, in addition, free from recognized hazards to employees of the Lessee or of any contractor or subcontractor operating under this lease; (b) Maintain all operations within the leased areas in compliance with regulations in 30 CFR Part 585 and orders from the Lessor and other Federal agencies with jurisdiction, intended to protect persons, property and the environment on the OCS; and (c) Provide any requested documents and records, which are pertinent to occupational or public health, safety, or environmental protection, and allow prompt access, at the site of any operation or activity conducted under this lease, to any inspector authorized by the Lessor or other Federal agency with jurisdiction.	Section 1.3, Regulatory Framework Appendix E, Safety Management System Appendix F, Project Supplemental Information Appendix G, Project Engineering Plans and Construction Drawings Appendix H, Geophysical and Geotechnical Survey Reports

Table 1.0-2. Summary of Lease Requirements for SFWF and SFEC

Details on the lease termss and stipulations relevant to construction and operations for SFWF and SFEC

Lease Requirements	Description	Compliance Statement/ Location within COP
Section 15: Debarment Compliance	The Lessee must comply with the Department of the Interior's non-procurement debarment and suspension regulations set forth in 2 CFR Parts 180 and 1400 and must communicate the requirement to comply with these regulations to persons with whom it does business related to this lease by including this requirement in all relevant contracts and transactions.	DWSF will comply.
Section 16: Notices	All notices or reports provided from one party to the other under the terms of this lease must be in writing except as provided herein and in the applicable regulations in 30 CFR Part 585. Written notices must be delivered to the party's Lease Representative, as specifically listed in Addendum "A," either electronically, by hand, by facsimile, or by United States first class mail, adequate postage prepaid. Either party may notify the other of a change of address by doing so in writing. Until notice of any change of address is delivered as provided in this section, the last recorded address of either party will be deemed the address for all notices required under this lease. For all operational matters, notices must be provided to the party's Operations Representative, as specifically listed in Addendum "A," as well as the Lease Representative.	DWSF will comply.
Addendum B - Lease Term and Financial Schedule; Section III - Payments:	Unless otherwise authorized by the Lessor in accordance with the applicable regulations in 30 CFR Part 585, the Lessee must make payments as described below (see Lease document for payment schedule).	DWSF will comply.

1.1 Project Overview

DWSF will be responsible for the construction, operations and maintenance (O&M), and decommissioning of the Project, which consists of the following components:

- **South Fork Wind Farm (SFWF):** includes up to 15 wind turbine generators (WTGs, turbines) with a nameplate capacity of 6 to 12 megawatts (MW) per turbine, submarine cables between the WTGs (Inter-array Cables), and an offshore substation (OSS), all of which will be located within federal waters on the OCS, specifically in BOEM Renewable Energy Lease Area OCS-A 0517 (Lease Area),[2] approximately 19 miles (30.6 kilometers [km], 16.6 nautical miles [nm]) southeast of Block Island, Rhode Island, and 35 miles (56.3 km, 30.4 nm) east of Montauk Point, New York. The SFWF also includes an O&M facility that will be located onshore at either Montauk in East Hampton, New York or Quonset Point in North Kingstown, Rhode Island.
- **South Fork Export Cable (SFEC):** an alternating current (AC) electric cable that will connect the SFWF to the existing mainland electric grid in East Hampton, New York. The SFEC includes both offshore and onshore segments.
  - **SFEC - OCS:** the submarine segment of the export cable buried beneath the seabed within federal waters on the OCS from the OSS to the boundary of New York State territorial waters.
  - **SFEC - New York State (NYS):** the submarine segment of the export cable buried beneath the seabed within state territorial waters from the boundary of New York State waters to a sea-to-shore transition vault located in the Town of East Hampton on Long Island, Suffolk County, New York. The SFEC - NYS includes the sea-to-shore transition.
  - **SFEC - Onshore**: the terrestrial underground segment of the export cable from the sea-to-shore transition vault to the interconnection facility where the SFEC will interconnect with the Long Island Power Authority (LIPA) electric transmission and distribution system East Hampton. The SFEC - Onshore includes the SFEC - Interconnection Facility.

The general operational concept for the Project is shown on Figure 1.1-1. The kinetic energy in the wind turns the WTG rotor by creating lift on the blades to generate electricity. Electricity generated from each WTG is collected through a series of Inter-array Cables that terminate at an offshore substation. The offshore substation connects to an export cable that carries the power to the onshore interconnection facility, which will connect to an existing substation where power is transmitted to the electric grid.

The approximate location of the Project is shown on Figure 1.1-2.

DWSF has committed to an indicative layout scenario with WTGs sited in a grid with approximately 1.15 mile (1.9 km, 1.0 nm) by 1.15 mile (1.9 km, 1.0 nm) spacing that aligns with other proposed adjacent offshore wind projects in the Rhode Island/Massachusetts Wind Energy Area (RI-MA WEA).

[2] The leaseholder of Renewable Energy Lease Area OCS-A 0517 is DWSF. This Lease Area was previously part of OCS-A 0486. The leaseholder of OCS-A 0486 is Deepwater Wind New England, LLC. In January 2020 Deepwater Wind New England, LLC requested that BOEM assign a portion of Lease Area OCS-A 0486 to DWSF to be given the designation OCS-A 0517.

The proposed location of the SFEC - NYS and SFEC - Onshore, including two landing sites, are shown in detail on Figure 1.1-3. Section 3 provides a detailed description of the SFWF and SFEC.

Port facilities in New York, Rhode Island, Massachusetts, Connecticut, New Jersey, Maryland, and/or Virginia may be utilized to support construction, O&M, and decommissioning (described in Section 3.1.3.1).

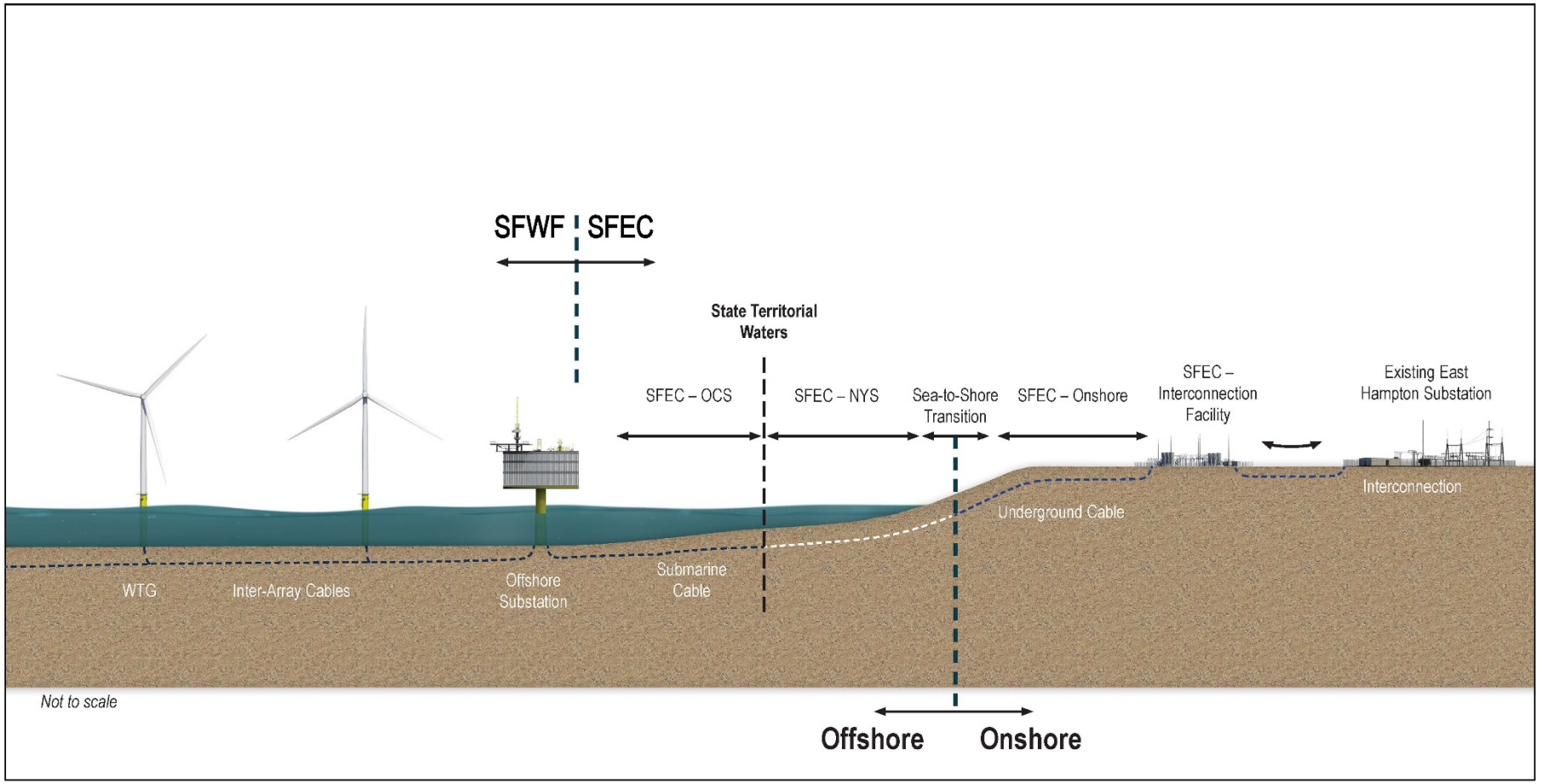

Figure 1.1-1. Project Operational Concept
Illustrated components of the Project.

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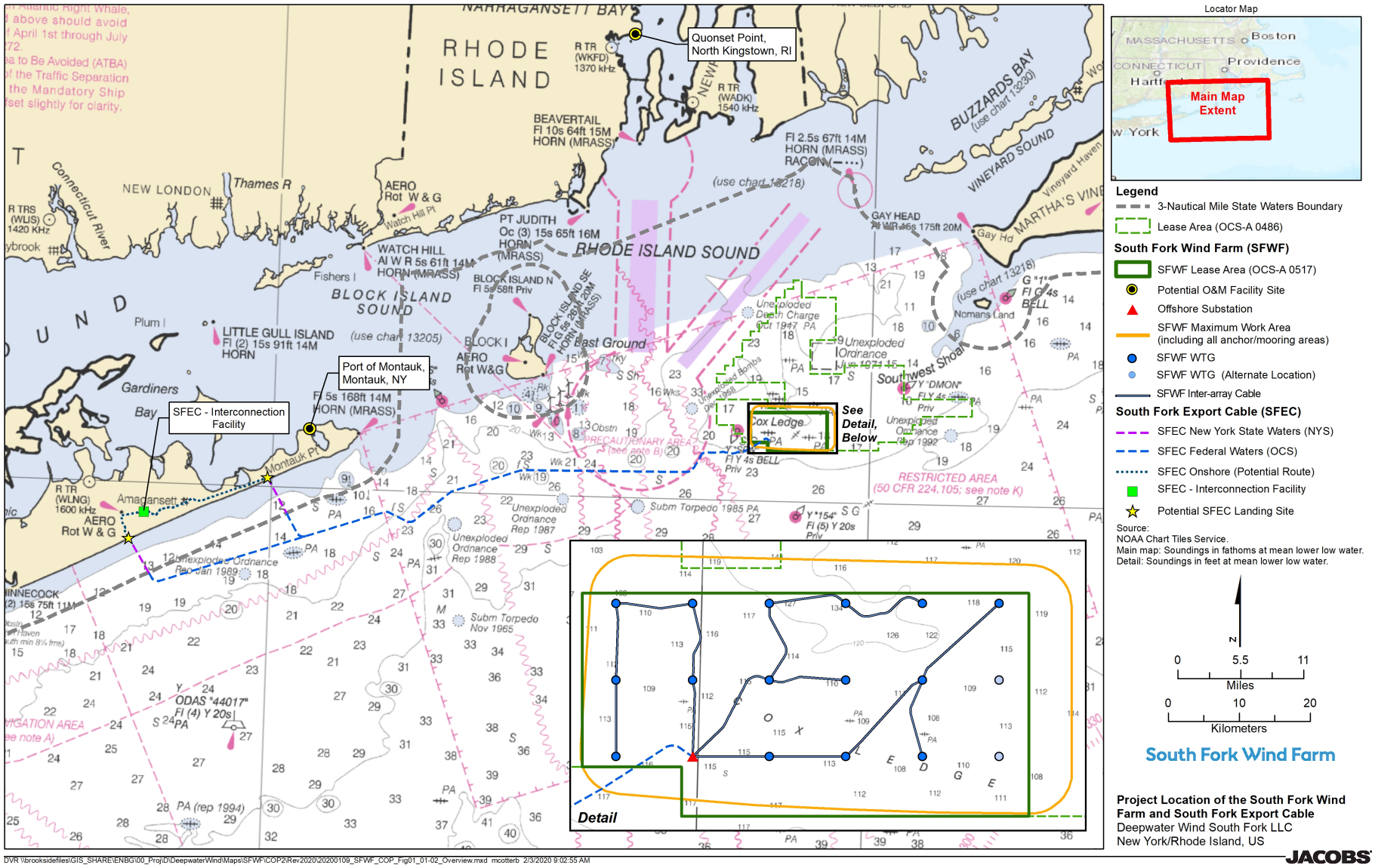

DVR \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\D\DeepwaterWind\Maps\SFWF\COP2\Rev2020\20200109_SFWF_COP_Fig01_01-02_Overview.mxd mcotterb 2/3/2020 9:02:55 AM

Figure 1.1-2. Project Location of SFWF and SFEC

Depiction of the SFWF and SFEC, shown on a nautical chart.

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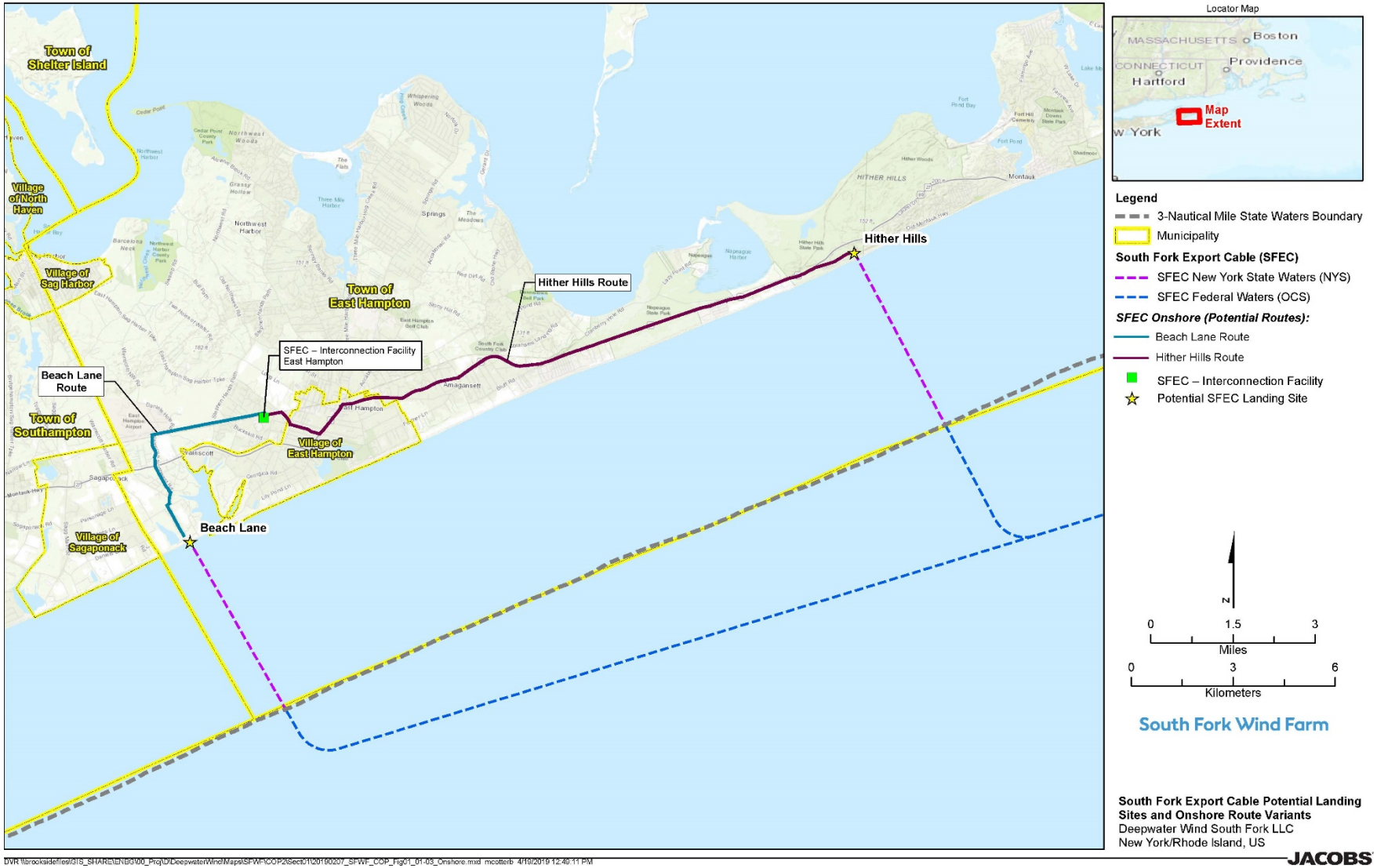

Figure 1.1-3. SFEC – Potential Landing Sites and Onshore Route Variants

Depiction of the SFEC - NYS and SFEC - Onshore, including landing site options, and interconnection point at SFEC - Interconnection Facility.

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1.2 Project Purpose

The purpose of the Project is to generate electricity from an offshore wind farm located in the Lease Area and to transmit it to the East Hampton Substation. The Project addresses the need identified by the LIPA for new sources of power generation that can cost-effectively and reliably supply the South Fork of Suffolk County, Long Island, as an alternative to constructing new transmission facilities. The Project will also help LIPA achieve its renewable energy goals. The Project will enable DWSF to fulfill its contractual commitments to LIPA pursuant to a Power Purchase Agreement (PPA) executed in 2017 resulting from LIPA's technology-neutral competitive bidding process.

1.3 Regulatory Framework

As described in Section 1.1, Project components are proposed in federal waters on the OCS, waters of New York State, and at onshore locations in Long Island, New York. As a result, multiple federal and state agencies have regulatory authority over components of the Project. The SFWF and SFEC - OCS are proposed in federal waters on the OCS. The SFEC - NYS and SFEC - Onshore are proposed in waters of New York State, and onshore in New York State, respectively.

BOEM has the responsibility to regulate activities associated with the production, transportation, or transmission of renewable energy resources on the OCS under the Outer Continental Shelf Lands Act (OCS Lands Act) (43 U.S.C. § 1337). Associated with this authority, BOEM has issued a lease to the Applicant to develop renewable energy projects within the Lease Area. With approval of this COP, DWSF requests that BOEM issue a project easement for the portions of the SFEC located in federal waters. In addition, BOEM is expected to be the lead federal agency during the review of the Project under the NEPA.

The New York State Department of Public Service Commission (NYSPSC) will lead the review of the SFEC - NYS and SFEC - Onshore within the territory of the State of New York under Article VII of the New York Public Service Law (PSL), which will include review under Section 401 of the Clean Water Act of 1972 (CWA).

Table 1.3-1 includes a list of the required federal and state permits and approvals, and the date of anticipated issuance. A listing of agency consultations relating to those permits and approvals are included in Table 1.4-1. Due to the preemptive effect of PSL § 130, the procedural requirements to obtain any local approval, consent, permit, certificate or other condition for the construction and operation of the Project do not apply.

1.3.1 Federal Permits, Approvals, and Consultations

The construction and operation of the Project will require a COP that is compliant with BOEM regulations (30 CFR § 585) and approved by BOEM prior to the start of construction.

The Applicant will also obtain various other federal approvals including:

- USACE Individual Permit
  - Clean Water Act Section 404 (33 U.S.C. § 1344) - Required for activities associated with the discharge of dredged or fill material in waters of the United States, in accordance with 33 CFR 328.4. These activities may include side-casting of material during installation of the SFEC, temporary excavation material associated with a temporary offshore cofferdam, placement of concrete matting associated with cable protection, and any

temporary or permanent fill associated with the SFEC – Onshore. In addition, installation of the O&M Facility at Montuak may include dredging (Appendix BB3).

  - Rivers and Harbors Act of 1899 Section 10 (33 U.S.C. § 403) - Required for all structures and work conducted in waters of the United States, as well as fixed structures on the OCS. These activities include installation of foundations on the OCS, as well as installation of the SFEC under the seabed.

- U.S. Environmental Protection Agency (EPA) Clean Air Act (CAA) Outer Continental Shelf Air Permit(42 U.S.C. § 7627; 40 CFR Part 55, 60) – EPA regulates air quality on the OCS, including emissions from the construction, operation, and decommissioning of the SFWF and SFEC, including any equipment, activity, or facility that emits, or has the potential to emit, any air pollutant; is regulated or authorized under the OCS Lands Act; and is located on the OCS or in or on waters above the OCS. This definition includes vessels when they are permanently or temporarily attached to the seabed (40 CFR 55.2), as well as vessels associated with the Project while operating at the SFWF or within 25 nm (46.3 km) of the activity.
- National Marine Fisheries Service (NMFS) Marine Mammal Protection Act (MMPA) Incidental Harassment Authorization (IHA) - For the unintentional "take" of marine mammals incidental to certain noise producing activities associated with the Project, including pile driving.

The Project is also required to undergo environmental review under NEPA (42 U.S.C. § 4321 *et seq*.) and comply with a variety of other federal regulations. Consultation and review will occur with NMFS under the Magnuson-Stevens Fisheries Conservation and Management Act and the Marine Mammal Protection Act; with U.S. Fish and Wildlife Service (USFWS) and NMFS under Section 7 of the ESA; with National Park Service (NPS) for the Abandoned Shipwreck Act; and with the USCG, the U.S. Department of Defense, and the Bureau of Safety and Environmental Enforcement (BSEE). In addition, federal agency review of the Project must also occur under Section 106 of the NHPA and Section 307 of the CZMA.

1.3.2 National Environmental Policy Act

The NEPA and implementing regulations (40 CFR §§ 1500-1508) require that federal agencies consider the impacts of their actions on the environment. Actions that are not listed as categorically excluded or considered an administrative action not subject to NEPA must be reviewed, and an Environmental Assessment or an Environmental Impact Statement, must be prepared to document the analysis. Approval of the COP by BOEM and issuance of an Individual Permit by USACE are both considered federal actions for the Project that will trigger review under NEPA. It is expected that BOEM will act as the Lead Federal Agency for the NEPA review of the Project.

Table 1.3-1. Summary of Permits and Approvals
Details on the status for required permits and approvals

Permit / Approval and Statute/Regulation	Regulatory Authority	Date of Approval or Date of Anticipated Approval
FEDERAL		
Approval of SAP, pursuant to BOEM Regulations (30 CFR 585.606, 610, 611)	BOEM	Approved, 10/12/2017
Approval of COP, pursuant to BOEM regulations (30 CFR 585.626)	BOEM	Q2/Q3 2020
Issuance of Individual Permit, pursuant to Section 10, Rivers and Harbors Act (33 U.S.C. 333, 403) and Section 404, CWA (33 U.S.C. 1344)	USACE, New England District	Q2/Q3 2020
Issuance of OCS Air Permit, pursuant to Clean Air Act (40 CFR 55, 60; 42 U.S.C. 7627)	EPA Region 1	Q2/Q3 2020
Approval of IHA, pursuant to the Marine Mammals Protection Act (50 CFR 216, 16 U.S.C. 1361 et seq)	NMFS	Q2/Q3 2020
Approval for Private Aids to Navigation, pursuant to USCG regulations (33 CFR 64.11)	USCG	3–6 months prior to construction start
STATE		
New York		
Certificate of Environmental Compatibility and Public Need (CECPN), pursuant to Article VII of the New York Public Service Law (16 New York Codes, Rules and Regulations [NYCRR] Parts 85 through 88), Article 15 (6 NYCRR Part 608 and 621), and Article 25 (6 NYCRR Part 661)	NYSPSC, New York State Department of Public Service (NYSDPS)	Q3 2020
Environmental Management and Construction Plan, pursuant to Article VII (16 NYCRR Parts 85 through 88)		
Section 68 Petition (permission to exercise the grants of municipal rights), pursuant to Article VII (Section 68(1))		
Water Quality Certification, pursuant to Section 401 of the CWA and Implementing Regulations (6 NYCRR Parts 701, 702, 704, 754 and Part 800 to 941)		

Table 1.3-1. Summary of Permits and Approvals
Details on the status for required permits and approvals

Permit / Approval and Statute/Regulation	Regulatory Authority	Date of Approval or Date of Anticipated Approval
State Pollutant Discharge Elimination System (SPDES) General Permit GP-0-15-002 for Stormwater Discharges from Construction Activity, pursuant to 6 NYCRR Part 750-757	New York State Department of Environmental Conservation (NYSDEC)	6–9 months prior to construction start
Utility Work Permit - Form Perm 32, pursuant to New York State Highway Law (Article 3, design2)	NYSDOT - Region 10	3–6 months prior to construction start
Grant to use New York State Lands Under Water, pursuant to New York State Public Lands Law (Article 2, Section 3, Subsection 2)	New York State Office of General Services (NYSOGS), Bureau of Land Management	Q3 2020
Concurrence with Coastal Zone Management Program (CZMP) Federal Consistency Certification, pursuant to Coastal Zone Management Act (CZMA) (16 U.S.C. 1451 et seq, 15 CFR Part 930, and 30 CFR 585.611(b), 627(b)) and State Article 42 of the Executive Law (19 NYCRR Part 600 and 6 NYCRR Part 617)	New York State Department of State (NYSDOS) - Division of Coastal Resources	Prior to COP approval
Rhode Island		
Concurrence with CZMP Federal Consistency Determination, pursuant to CZMA (16 U.S.C. 1451 et seq, 15 CFR 930, and 30 CFR 585.611(b), 627(b)) and Rhode Island Coastal Resources Management Program (RI CRMP) (Section 400)	Rhode Island Coastal Resources Management Council (RI CRMC)	Prior to COP approval
Massachusetts		
Concurrence with CZMP Federal Consistency Determination, pursuant to CZMA (16 U.S.C. 1451 et seq, 15 CFR 930, and 30 CFR 585.611(b), 627(b)), Massachusetts General Law (M.G.L.) (21A, Subpart 4A) and Massachusetts Coastal Zone Management Program Policies (310 Code of Massachusetts Regulations [CMR] 20.00 and 21.00)	Massachusetts Office of Coastal Zone Management (MACZM)	Prior to COP approval

Notes:
Q1 = first quarter (Jan, Feb, Mar)
Q2 = second quarter (Apr, May, Jun)
Q3 = third quarter (Jul, Aug, Sep)
Q4 = fourth quarter (Oct, Nov, Dec)

1.3.3 New York State Permits, Approvals, and Consultations

The SFEC has a design capacity that exceeds 125 kilovolts (kV) and extends more than 1 mile (1.6 km, 0.87 nm); therefore, it is considered an electric transmission facility (16 New York Codes, Rules and Regulations [NYCRR] Subpart 85-2.1). As such, the portion of the SFEC in New York State territorial waters (3 miles [4.8 km, 2.6 nm] offshore) to its onshore interconnection point with the LIPA transmission system (SFEC - NYS and SFEC - Onshore) is subject to review and approval by the NYSPSC under Article VII of the New York Public Service Law (16 NYCRR Parts 85 through 88), which authorizes the Siting of Major Utility Transmission Facilities.

The Article VII process provides a full review of the need for and environmental impact of the siting, design, construction, and operation of the SFEC and results in the issuance of a Certificate of Environmental Compatibility and Public Need (CECPN). The CECPN will include Water Quality Certification, pursuant to Section 401 of the CWA and Implementing Regulations (6 NYCRR Parts 701, 702, 704, 754 and Part 800 to 941), and relevant authorizations under Article 15 (6 NYCRR Part 608 and 621), and/or Article 25 (6 NYCRR Part 661).

Prior to construction, the NYSPSC must also approve an Environmental Management and Construction Plan that describes the practices during construction that will demonstrate compliance with the CECPN. In addition, prior to the start of construction, DWSF will apply for coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity from New York State Department of Environmental Conservation (NYSDEC), a Utility Work Permit from New York State Department of Transportation (NYSDOT), and a Grant to Use New York State Lands Under Water from New York State Office of General Services (NYSOGS), Bureau of Land Management.

Consultation and review will also occur with NYSDEC for state-listed threatened and endangered species and unique or significant habitats; New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) for cultural and historic resources; and New York State Department of Agriculture and Markets (NYSDAM) for agricultural lands.

1.3.4 Coastal Zone Management Act Consistency

The CZMA requires that federal actions impacting any coastal use or resource (defined as land or water use, or natural resource of a state's coastal zone), be conducted in a manner that is consistent with the enforceable policies of a state's federally approved CZMP or CRMP. Within this authority of the CZMA, state coastal programs that have been approved by National Oceanic and Atmospheric Administration (NOAA) may review federal actions impacting their coastal uses or resources or both, to verify that such activities are consistent with the state's enforceable program policies.

The federal actions associated with the Project include approval of the COP by BOEM and issuance of an Individual Permit by USACE, under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The specific components and activities associated with those federal actions include construction, O&M, and decommissioning of the SFWF, SFEC - OCS, and SFEC - NYS. The construction, operations and maintenance, and decommissioning of the SFEC - NYS and SFEC - Onshore will also be reviewed and authorized under Article VII of the PSL by the NYSPSC. Their review will include review for consistency with the New York State CZMP.

DWSF has prepared consistency statements for review by each of New York, Rhode Island, and Massachusetts to confirm consistency with each state's enforceable policies impacting any coastal use or resource, see Appendix A. In accordance with the "consistency" requirement of the CZMA (16 U.S.C. § 1456), as well as 307(c)(3)(A) and 15 CFR Part 930, Appendix A presents a tabular summary of applicable enforceable policies under the CZMP or CRMP for these states and an evaluation of how the SFWF and/or SFEC will be consistent with each policy, as well as cross references to specific sections of the COP where the policy is addressed.

1.4 Agency and Stakeholder Outreach

Since 2010, DWSF has been engaged in extensive outreach relating to the Project with federal and state agencies, federally-recognized Native American tribes (tribes), municipal organizations in East Hampton, New York, stakeholders representing a broad range of perspectives, and the public.

DWSF is committed to stakeholder communications and public outreach during Project development. A wide and varied range of communication methods will allow stakeholders and the public to be informed respecting the Project, such that appropriate outreach is occurring to meet the information needs of a diverse audience of stakeholders. The public involvement program for the Project includes:

- Regular briefings with federal and state agencies, tribes, elected officials, and other stakeholders to provide Project updates, solicit input and concerns, and respond to inquiries.
- Communications and regular briefings with the commercial and recreational fishing industry, including individual discussions and open house meetings in ports to provide Project updates, identify key concerns, and share relevant survey findings. Appendix B includes the Fisheries Communication Plan for the Project, including a summary of fisheries outreach to date. This outreach has been led by:
  - Rodney Avila, DWSF Fisheries Liaison, who has knowledge and understanding of the regional fishing industry, leads outreach with the commercial and recreational fishing industries. Mr. Avila is supported by Ms. Julia Prince, Long Island Fisheries Liaison who is a resident of Montauk in the Town of East Hampton, NY. Both Mr. Avila and Ms. Prince have made it a priority to engage with fishermen in home ports whenever possible.
  - Fisheries Industry Representatives from the ports of Montauk, Point Judith and New Bedford.
- Regular outreach and briefings to civic, community, and business groups to encourage them to join advisory working groups, attend public information meetings, and sign-up for email updates and newsletters.
- A community outreach office in Amagansett, New York with regular offices hours that provides a central location where Project information is available to the public and where small group meetings can be held.
- Informational meetings that will be conducted on a regular basis to keep the public informed and provide opportunities for input on topics related to the Project.

Table 1.4-1 identifies the federal and state agencies, federally-recognized Native American tribes, and municipal entities with which DWSF has met to discuss the Project through May 2019.

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings

Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
February 2011	USFWS	Avian and Bat Survey Protocol
April 2011	Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)	Introduction Meeting
May 2011	BOEMRE; Rhode Island Historical Preservation and Heritage Commission (RIHPHC); Rhode Island Senate Policy, RI CRMC; Massachusetts Executive Office of Energy and Environmental Affairs	BOEMRE RI Public Meeting
June 2011	BOEMRE	BOEMRE RI Public Meeting re: leasing process
April 2014	BOEM; NYSDOS; New York State Energy Research and Development Authority (NYSERDA)	Workshop to Discuss the Offshore Leasing Process and Best Management Practices to Reduce User Conflict
May 2015	BOEM	SAP Survey, Pre-Survey Meeting
August 2015	Narragansett Indian Tribe	SAP Survey, Pre-Survey Meeting
May 2016	BOEM; Massachusetts Department of Marine Fisheries (MADMF); Massachusetts Clean Energy Center (MassCEC)	Offshore Wind Habitat Working Group Meeting
June 2016	BOEM; MADMF; MassCEC; Habitat Working Group	MA Offshore Wind Habitat Working Group Meeting
June 2016	BOEM; MADMF; MassCEC; Fisheries Working Group	MA Offshore Wind Fisheries Working Group Meeting
October 2016	BOEM	Survey planning and Pre-Application Meeting
November 2016	NYS Parks, Recreation, and Historic Preservation	Project Intro Meeting
February 2017	NYSDPS; NYSOGS; NYSDOS; NYSDEC	Project Intro Meeting
February 2017	RI CRMC	Project Intro Meeting
February 2017	MACZM	Project Intro Meeting and Discussion of Coastal Zone Management
March 2017	BOEM	Project Intro Meeting and Pre-Application Consultation for COP
March 2017	USACE; BOEM	Project Intro Meeting
March 2017	USCG	Project Intro Meeting

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings
Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
March 2017	EPA; BOEM	Project Intro Meeting, Air Quality and Emissions
March 2017	Shinnecock Indian Nation	Project Intro Meeting
March 2017	NYSDEC; NYSDPS	Project Intro Meeting
March 2017	NYS State Historic Preservation Office (SHPO)	Project Intro Meeting
March 2017	RI CRMC	Habitat Advisory Board and Fisheries Advisory Board Meeting
April 2017	BOEM	COP Pre-Survey Meeting
April 2017	New England Fisheries Management Council (NEFMC)	Project Discussion Meeting
April 2017	NMFS; BOEM	Project Intro Meeting and Fisheries Discussion
April 2017	USFWS; BOEM	Project Intro Meeting
April 2017	East Hampton Trustees	Project Intro Meeting
April 2017	RI CRMC	Rhode Island Fisheries Advisory Board Meeting
May 2017	BOEM	Rhode Island and Massachusetts Task Force Meeting
May 2017	Mashpee Wampanoag Tribe; Wampanoag Tribe of Gay Head Aquinnah; Narragansett Indian Tribe; Shinnecock Indian Nation	COP Tribal Pre-Survey Meeting
May 2017	NYS Parks, Recreation, and Historic Preservation	Project Intro Meeting
May 2017	RI CRMC	Rhode Island Fisheries Advisory Board Meeting
May 2017	BOEM; MADMF; MassCEC; Habitat Working Group	Massachusetts Offshore Wind Habitat Working Group Meeting
May 2017	BOEM; MADMF; MassCEC; Fisheries Working Group	Massachusetts Offshore Wind Fisheries Working Group Meeting
June 2017	BOEM	COP Work Session
June 2017	MACZM	MACZM Coastal Energy Conference
June 2017	BOEM; Multiple Agencies	Agency Webinar on Foundations

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings

Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
June 2017	Wampanoag Tribe of Gay Head Aquinnah; Mashantucket Pequot Tribal Nation; Shinnecock Indian Nation	COP Survey Data Training
June 2017	NYSDPS; NYSDEC	Agency Webinar on Foundations
June 2017	NYSDOS; USACE	COP Survey Plan Discussion
June 2017	RI CRMC	Project Update Meeting
June 2017	East Hampton Trustees	Project Intro Meeting with Harbor Management Committee
June 2017	East Hampton Trustees	Fisheries Discussion with Harbor Management Committee
July 2017	BSEE; BOEM	COP Discussion - Oil Spill Response Plan
July 2017	Wampanoag Tribe of Gay Head Aquinnah; Mohegan Indian Tribe	Tribal Field review of Onshore Routes and Facilities
July 2017	RI CRMC	Fisheries Discussion
August 2017	NMFS; BOEM	Fisheries Discussion
August 2017	EPA; BOEM	OCS Air Permitting; Conformity Determination
August 2017	USFWS; BOEM	Project Update and Discussion of Wildlife and Protected Species
August 2017	Wampanoag Tribe of Gay Head Aquinnah; Mohegan Indian Tribe; Mashantucket Pequot Tribal Nation	Visual/Indirect Effects Meeting
August 2017	Mashantucket Pequot Tribal Nation	Beach Lane & Napeague Lane Archaeology Tribal Monitoring
August 2017	Wampanoag Tribe of Gay Head Aquinnah; Mohegan Indian Tribe	Geophysical Data Review Webinar
August 2017	Rhode Island Department of Environmental Management (RI DEM)	Fisheries Discussion
August 2017	MACZM	Fisheries Discussion
August 2017	East Hampton Trustees	Project Discussion with Trustee Harbor Management Committee
September 2017	BOEM	COP Outline Review
September 2017	NMFS; BOEM	Fisheries Discussion, including Essential Fish Habitat

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings
Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
September 2017	Wampanoag Tribe of Gay Head Aquinnah; Shinnecock Indian Nation; Mohegan Indian Tribe; Mashantucket Pequot Tribal Nation	Geophysical Review Webinar
September 2017	NYSDPS	Project Discussion
September 2017	NYSDEC; NYSDPS; NYSDOS; NYSOGS	Project Update and Fisheries Discussion
September 2017	Connecticut Department of Energy and Environmental Protection (CT DEEP)	Project Intro Meeting
October 2017	BOEM	New York State Task Force Meeting
October 2017	BOEM	COP Survey Update Meeting
October 2017	Wampanoag Tribe of Gay Head Aquinnah	Visual Effects - Aquinnah Tribal Trust Land
October 2017	Wampanoag Tribe of Gay Head Aquinnah; Shinnecock Indian Nation; Mashpee Wampanoag Tribe; Mashantucket Pequot Tribal Nation	Geophysical Data Review Webinar
October 2017	NYSDOS	Project Update and Discussion of CZMA
October 2017	East Hampton Trustees	Presentation to Harbor Management Committee and Energy Sustainability Committee
October 2017	NEFMC	NEFMC Habitat Advisory Board Meeting
November 2017	NMFS; BOEM	Project Update Meeting
November 2017	RI DEM	Project Update Meeting
November 2017	CT DEEP Fisheries Division	Marine Fisheries Science Overview
November 2017	East Hampton Trustees	Project Discussion
December 2017	BOEM	Project Discussion and Air Emissions Inventory and Modeling
December 2017	BOEM	COP Discussion
December 2017	BOEM; NYSDEC, NYSDPS, NYSDOS; RI DEM	Cod Spawning Survey Plan
December 2017	Mashantucket Pequot Tribal Nation; Wampanoag Tribe of Gay Head Aquinnah	Geotechnical Core Splitting Presentation

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings

Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
December 2017	NYSDOS	Project Update and Discussion of CZMA Consistency Review
December 2017	East Hampton Town Board	Project Discussion
December 2017	East Hampton Trustees	Project Discussion, Science at Block Island Wind Farm
December 2017	East Hampton Trustees	Project Discussion with Trustee Harbor Management Committee
December 2017	NEFMC	NEFMC Habitat Advisory Board Meeting
January 2018	BSEE; BOEM	COP Discussion - Safety Management System
January 2018	USACE; BOEM	Project Update and Permitting Discussion
January 2018	East Hampton Town Board	Project Discussion
January 2018	East Hampton Trustees	Project Discussion with Trustee Harbor Management Committee
February 2018	NYSDEC; USFWS; BOEM; USACE	Project Update and Discussion of Protected Species
February 2018	BOEM; MADMF; MassCEC; Fisheries Working Group	Massachusetts Offshore Wind Fisheries Working Group Meeting
March 2018	NYSDPS; NYSDOS	Project Update and Discussion of Protected Species
March 2018	NMFS; BOEM	Project Discussion and Review of Benthic Habitat Surveys
April 2018	NYSDPS	Project Update Meeting
April 2018	RI CRMC	Habitat Advisory Board and Fisheries Advisory Board Meeting
April 2018	RI SHPO	Project Update Meeting
April 2018	East Hampton Town Board	Project Discussion
April 2018	NEFMC Habitat Committee	Project Update Meeting
April 2018	NYS Park Recreation, and Historic Preservation	Project Update Meeting
April 2018	BOEM	Rhode Island and Massachusetts Task Force Meeting

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings
Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
April 2018	USCG, Niantic CT	Offshore Wind Informational Meeting
May 2018	EPA; BOEM; Massachusetts Department of Environment Protection (MassDEP)	OCS Air Permitting; Conformity Determination
May 2018	NYSDOS	Project Update and Discussion of CZMA Consistency Review
May 2018	USCG; New Bedford Port Authority (NBPA); BOEM; MassCEC	USCG discussion on fishing traffic
May 2018	BOEM; NMFS; MassCEC; NBPA	Fisheries Regional Research Discussions
May 2018	Massachusetts Clean Energy Center; BOEM; NMFS	Workshop on Marine Mammals and Offshore Wind
May 2018	BOEM; MADMF; MassCEC; Fisheries Working Group	MA Offshore Wind Fisheries Working Group Meeting
June 2018	BOEM	CVA Nomination Meeting
June 2018	BOEM	COP Geotechnical Survey Pre-Survey Meeting
June 2018	Mashpee Wampanoag Tribe; Wampanoag Tribe of Gay Head Aquinnah; Narragansett Indian Tribe; Shinnecock Indian Nation	COP Geotechnical Survey Tribal Pre-Survey Meeting
June 2018	MACZM	MACZM Coastal Energy Meeting
June 2018	NYSDPS	Project Update Meeting
July 2018	NYS DOS, DPS, DEC	Additional Geophysical and Geotechnical Survey Meeting
August 2018	RI CRMC	Project Update Meeting
August 2018	RI CRMC Habitat and Fishermen's Advisory Boards	Project Update Meeting
August 2018	Mashpee Wampanoag Tribe; Wampanoag Tribe of Gay Head Aquinnah; Shinnecock Indian Nation; Mashantucket Pequot Tribal Nation	COP Expanded Geophysical and Geotechnical Tribal Pre-Survey Meeting
August 2018	RI SHPO	Project Update Meeting
September 2018	USCG	Project Update Meeting
September 2018	EPA	Air Modeling Meeting

Table 1.4-1. Summary of Federal, Tribal, State, and Municipal Meetings

Overview of Project meetings with federal and state agencies, tribes, and municipal entities

Date	Entity	Topic
September 2018	BOEM	Interagency Meeting and Project Update
November 2018	Narragansett Indian Tribe; Mashantucket Pequot Tribal Nation; Mohegan Tribe	COP and Technical Reports Overview Meeting
November 2018	NYSDOS	Project Update Meeting
November 2018	USACE	Project Discussion
November 2018	BOEM	NEPA Scoping Meetings
December 2018	Wampanoag Tribe of Gay Head Aquinnah; Narragansett Indian Tribe	Marine Geotechnical Coring
January 2019	Mashpee Wampanoag Tribe; Wampanoag Tribe of Gay Head Aquinnah; Mashantucket Pequot Tribal Nation; Mohegan Tribe; Narragansett Indian Tribe; Shinnecock Indian Nation	Roadside Archaeology and Marine Geotechnical Meeting
January 2019	Wampanoag Tribe of Gay Head Aquinnah; Mashantucket Pequot Tribal Nation; Narragansett Indian Tribe;	Geophysical Data Review Workshop
February 2019	NYSDOS	Project Update Meeting
February 2019	New York Office of General Services (NYOGS)	Project Introduction and Easement Request
February 2019	Wampanoag Tribe of Gay Head Aquinnah; Narragansett Indian Tribe; Mashantucket Pequot Tribal Nation	Geotechnical Core Splitting and Analysis
March 2019	BOEM; NOAA/NMFS; NYSDOS; NYSDEC; MACZM; MADMF; USACE; CT DEEP; RI CRMC; RI DEM	Fisheries Research and Monitoring Discussions
April 2019	RI CRMC	Project Update Meeting
May 2019	NYSDOS	Project Update Meeting
May 2019	NYSDOT	Project Update Meeting
May 2019	New York State Parks, Recreation, and Historic Preservation (NYSOPRHP)	Project Update Meeting

In addition to these meetings, DWSF has met with the following organizations and will continue to conduct outreach throughout Project development. These organizations include:

- American Association of Retired Persons
- Amagansett Citizens Advisory Committee

- Audubon Society of Rhode Island
- Brown Learning Collaborative
- Citizens Campaign for the Environment
- College of Staten Island, City University of New York
- Concerned Citizens of Montauk
- Conservation Law Foundation
- Cornell Cooperative Extension
- East Hampton Historical Society
- East Hampton Rotary Club
- Eastern Fisheries
- ECO Rhode Island
- Environment Business Council of New England
- Environment Massachusetts
- Environmental League of Massachusetts
- Fisherman's Advisory Board and Habitat Advisory Board
- Group for the East End
- Inlet Seafood Corp
- Long Island Commercial Fishing Association
- Long Island Pine Barrens Society
- Massachusetts Audubon Society
- Massachusetts Clean Energy Center
- Massachusetts Fishermen's Partnership and Support Services
- Massachusetts Fishery Working Group
- Massachusetts Habitat Working Group
- Massachusetts Lobstermen's Association
- Mid Atlantic Fisheries Management Council
- Montauk Captain's Association
- Montauk Chamber of Commerce
- Montauk Citizens Advisory Committee
- National Oceanic and Atmospheric Administration
- National Wildlife Federation
- Natural Resources Defense Council
- New Bedford Economic Development Council

- New Bedford Port Authority
- New England Aquarium
- New England Energy and Commerce Association
- New England Fisheries Management Council – Habitat Working Group
- New England Fisheries Science Center
- New York State Fisheries Technical Working Group
- North Fork Environmental Council
- *Providence Business News* (PBN)
- Peconic Chapter of the American Institute of Architects (AIA)
- Port of New Bedford
- Propeller Club
- Responsible Offshore Development Alliance (RODA) / Responsible Offshore Science Alliance (ROSA)
- Rhode Island Building Owner's Association School of Marine and Atmospheric Sciences at Stonybrook
- Sierra Club
- Surfrider Foundation, Eastern Long Island Chapter
- The Nature Conservancy (TNC)
- Town of East Hampton Energy Sustainability Committee
- Town of Southampton Sustainability Committee
- University of Rhode Island (URI) – Offshore Energy Department
- URI Labor Focus Group
- Wainscott Citizens Advisory Committee

DWSF has also conducted outreach activities with local stakeholders on Long Island and in ports in New York, Massachusetts, Rhode Island, and Connecticut. These activities include:

- American Planning Association Long Island Chapter-Fall East End Conference
- AIA, Peconic Chapter May Program Host
- Building Blocks Workshop: Parrish Art Museum
- East End Environmental Nongovernmental Organization (NGO) Meeting (North Fork Environmental Council, Group for East End, Long Island Pine Barrens Society, Concerned Citizens of Montauk)
- East Hampton Good Government Panel
- East Hampton Trustee Harbor Management Committee Meeting
- East Hampton Village Spring Fair

- Environmental NGO Roundtable at Guild Hall (Group for East End, Defend H20, TNC, Surfrider Foundation, Concerned Citizens of Montauk, and others)
- Environmental NGO Science Presentations (Group for East End, TNC, Riverhead Marine Foundation, Perfect Earth Project, Surfrider Foundation, Concerned Citizens of Montauk)
- Fisheries Open House at Port in Montauk, NY
- Fisheries Open House at Port in Shinnecock Inlet, NY
- Fisheries Open House at Port in Jones Inlet, NY
- Fisheries Open House at Port in New Bedford, MA
- Fisheries Open House at Port in Point Judith, RI
- Fisheries Open House at Port in Stonington, CT
- Fisheries discussions with local stakeholders
- International Energy and Sustainability Conference 2017 at Farmingdale State College
- Long Island Association Meeting and Advanced Energy Research and Technology Center (AERTC) Boat Trip to Block Island Wind Farm (BIWF)
- Long Island Fisherman's Expo
- Long Island Traditions – Working the Waters
- Massachusetts Coastal Zone Management Nantucket Energy Conference
- MTK Water Life Events: Sole East Resort
- Nantucket Energy Conference
- National Academy of Sciences, Offshore Renewable Energy Development and Fisheries Conference
- NY Bight Taskforce Meeting
- NY Workforce Development Institute Presentation
- Ocean Frontiers III Film Screening and Panel Discussion at Farmingdale State College
- Office Open House Event
- Offshore Wind Habitat Working Group Meeting
- Open House at Clinton Academy in East Hampton
- Presentation to League of Women Voters at Rogers Memorial Library in Southampton
- Rhode Island Public Meeting (TNC, URI, others)
- Sag Harbor Expressions Event: Renewable Energy Panel
- Southampton Village Earth Day Panel & Fair
- The 2nd Annual South Fork 100 percent Renewable Energy Forum
- Tours to BIWF
- Town of Southampton Earth Day Event at Good Ground Park

- Trustee Harbor Management Committee Meeting
- United States Coast Guard Offshore Wind Training
- URI Energy Lecture Series
- URI Offshore Wind Science Forum
- West Long Beach, NJ Fisheries Meeting Host

1.5 Tentative Schedule

As summarized in Table 1.5-1, installation of the SFWF and SFEC is scheduled to occur in 2021 and 2022 with the Project commissioned and operational by the end of 2022. The Project schedule assumes that permits will be obtained in 2020 in order to allow for several months of final engineering and design, contract negotiations, procurement, and manufacturing prior to the start of installation.

The installation schedule is based on several factors, including the timeframe when permits are received; regulatory time of year restrictions; environmental conditions; planning, construction, and installation logistics.

Table 1.5-1. Tentative Schedule
Installation schedule for the SFWF and SFEC

Project Component	Milestone	Expected Duration	Expected Timeframe
SFWF	Contracting, Mobilization, Fabrication, Transportation, and Verification	36 to 48 months	2019 to 2022
	Foundation installation [a]	4 months	2021 to 2022
	Inter-array Cable installation	4 months	2022
	WTG installation	2 months	2022
	OSS installation	1 month	2021 to 2022
	Commissioning	3 months	2022
	Construction and installation of SFWF O&M facility	9 to 12 months	2021 to 2022
SFEC	Contracting, Mobilization, Fabrication, Transportation, and Verification	36 to 48 months	2019 to 2022
	Interconnection facility construction	6 to 9 months	2021 to 2022
	Sea-to-Shore installation (including horizontal directional drilling [HDD])	6 to 9 months	2021 to 2022
	Offshore cable installation	2 months	2022
	Onshore cable installation	9 to 12 months	2021 to 2022
	Commissioning	6 months	2021 to 2022

[a] Pile driving activities will occur at the SFWF between May 1 and December 31, thereby mitigating impacts to North Atlantic right whale migration.

1.6 Other Project Information

The following sections provide other relevant Project-specific information to meet the requirements of the OCS Lands Act, NEPA, and other applicable laws and regulations, as recommended in the COP information requirements guidance document (BOEM, 2016).

1.6.1 Authorized Representative and Operator

DWSF will be the operator of the SFWF and the SFEC. The contact information for the Authorized Representative for the SFWF and SFEC is included in Table 1.6-1.

Table 1.6-1. Authorized Representative and Operator
Contact information for DWSF Representative and Operator

Required Detail	Contact Information
Name of Authorized Representative	Peter Allen
Title	Director
Phone Number	617-373-0208
Email	PEALL@orsted.com
Address	One International Place, Suite 2610, Boston, MA 02110

DWSF is a wholly-owned indirect subsidiary of North East Offshore, LLC, a joint venture between Ørsted, the global leader in offshore wind, and Eversource, New England's largest energy delivery company. North East Offshore, LLC and its subsidiaries are actively planning offshore wind projects to serve Rhode Island, Connecticut, and New York.

Ørsted is the global industry leader in offshore wind and has significant experience with the rigors and challenges of the offshore wind business. Over the past 25 years, Ørsted has constructed 5.6 gigawatts (GW) of offshore wind capacity (just under 30 percent of globally installed offshore wind capacity), with an additional 3.4 GW currently under construction. Ørsted's existing activities span a number of markets, including the United States, Denmark, the United Kingdom, Germany, the Netherlands, and Taiwan. It is the current Ørsted leadership team that—within the short span of the past three to four years—has driven dramatic cost reductions and paved the way for exponential market growth. In 2018, Ørsted acquired Deepwater Wind, the company that built the United States' first offshore wind farm, off Block Island, Rhode Island. Ørsted's legacy Deepwater Wind team gained invaluable experience working with regulators, stakeholders, vendors, and U.S. construction contractors through the development and execution of the Block Island Wind Farm project. Together, Ørsted's expanded team is leading a stakeholder-centric approach to development that has made it the go-to partner for States up and down the eastern seaboard as they seek to develop offshore wind resources. In addition to successfully constructing and now operating the first offshore wind farm, and to being awarded the contract for the South Fork Wind Farm, Ørsted—through the North East Offshore, LLC joint venture—has also been awarded contracts for the aforementioned Connecticut/Rhode Island offshore wind projects (Revolution Wind). Outside of the North East Offshore, LLC joint venture, Ørsted is also developing offshore wind projects to serve Maryland (Skipjack Wind) and Virginia (Coastal Virginia Offshore Wind) and has submitted a proposal for a project to serve New Jersey. Currently, Ørsted has in its U.S. portfolio commitments for nearly

1,000 MW of offshore wind serving five states. In connection with the Block Island Wind Farm project, Ørsted also fully developed the Block Island Transmission System, which includes a thirty-mile onshore and offshore transmission system that connected Block Island to the mainland of Rhode Island for the first time. This was the first offshore renewable-energy transmission system developed in the United States.

Eversource is an industry leader in constructing and maintaining large transmission and distribution projects, including high-voltage and extra high-voltage overhead, underground, submarine, and hybrid transmission lines, and associated terminal equipment. Throughout New England and New York, Eversource has successfully completed hundreds of capital projects over the past decade, with a proven track record in: successful single state and multi-state project siting and permitting; working closely with other companies to develop major projects; and safely and efficiently constructing transmission and distribution projects. It has successfully completed hundreds of traditional and major capital projects over the past decade, employing innovative solutions to technical and environmental challenges such as: the first and most extensive 345-kV applications of solid core crosslinked polyethylene (XLPE) underground cables in the United States; laying marine cable in Long Island Sound from a purpose-built ship; and constructing overhead transmission support structures from the air, using helicopters. Eversource is only one of four North American energy companies certified as an Environmental, Social and Governance leader, and is recognized as a leader in providing top-tier reliability with the utmost focus on safety.

1.6.2 Financial Assurance

DWSF will provide financial assurance in accordance with 30 CFR § 585.516, prior to BOEM approval of this COP.

Ørsted and Eversource are stable and diversified publicly traded energy companies, with a combined market capitalization of approximately $49 billion, and combined operating cash flows of approximately $3 billion annually. Ørsted is the global leader in financing, constructing and operating offshore wind, and—as a result of the recent acquisition of Deepwater Wind—its team now includes the individuals responsible for the first ever financing of an offshore wind farm in the United States, and the first tax-equity financing of an offshore wind farm anywhere in the world.

1.6.3 Certified Verification Agent Nominations

Pursuant to 30 CFR § 585.705, a CVA must be used to certify to BOEM that the proposed facility is designed to withstand the environmental and functional load conditions for the intended life of the Project at its proposed location. The CVA will also review the relevant design standards and environmental loading for the structural design of the facilities.

Nomination Statement

In accordance with 30 CFR § 585.706, DWSF nominates DNV-GL to serve as the CVA.

Qualification Statement

The Statement of Qualifications for CVA Services is provided in Appendix C. The Statement addresses:

- Previous experience of the nominated CVA in third-party verification and BOEM procedures
- Technical capabilities of the CVA and staff members

- Size and type of organization
- Availability of technology
- Ability to perform
- Conflict of interest
- Professional Engineer supervision

Scope of Work and Verification Plan

The CVA Scope of Work and Verification Plan are also provided in Appendix C. This document specifies the level of work to be performed by the CVA at all phases of the Project and identifies the list of documents and subject matter that the CVA will review.

1.6.4 Oil Spill Response Plan

Pursuant to 30 CFR § 585.627(c), an Oil Spill Response Plan must be submitted to the BSEE. In accordance with 30 CFR Part 254, DWSF has developed an Oil Spill Response Plan which is provided in Appendix D.

1.6.5 Safety Management System

Pursuant to 30 CFR § 585.627(d), a Safety Management System must be submitted to BOEM. In accordance, with 30 CFR § 55.810, DWSF has developed a Safety Management System which is provided in Appendix E.