

Jeffrey Willis, Executive Director  
James Boyd, Coastal Policy Analyst  
September 30, 2020



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**VIA Email Only**

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**Re: Coastal Zone Management Act/ Federal Consistency Review Status for Proposed South Fork Wind Project / 90MW**

**Reference CRMC File No.: 2018-10-082**

Dear Executive Director Willis and Mr. Boyd:

This letter responds to the Coastal Resources Management Council’s (“CRMC”) request for additional information that CRMC considers necessary to make a consistency certification determination pursuant to 15 CFR § 930.78(a) for the South Fork Wind, LLC (“SFW”) project (the “Project” or “SFW Project”). SFW is a 50/50 partnership between Ørsted and Eversource.<sup>1</sup> CRMC’s request was initially set forth in a letter dated January 16, 2019 (the “Letter” or “CRMC’s Letter”). SFW has responded to the Letter with various submittals including its revised February 2020 Construction and Operations Plan (“COP”). The purpose of this response is to provide one comprehensive submission to CRMC addressing requests in the Letter. Specifically, CRMC identified four categories of additional data and information needed for the CRMC’s consistency review:

1. Alternative SFW Project layout showing an increase in east-west spacing between wind turbine generators (“WTGs”) to 1 nautical mile (“NM”).
2. Confirmation regarding what specific trenching equipment, hydraulic or mechanical, will be used and under what conditions. CRMC also asked SFW to confirm that it will limit the use of hydro-jet plow trenching to only seabed areas that CRMC considers

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<sup>1</sup> The Letter was addressed to Aileen Kenney at Deepwater Wind, LLC. As noted in the Letter, Ørsted announced on October 8, 2018, that it had entered into an agreement with the D.E. Shaw Group to acquire a 100% equity interest in the Rhode Island-based Deepwater Wind, LLC. This transaction was finalized as of November 7, 2018. Deepwater Wind South Fork, LLC is now known as South Fork Wind, LLC.

suitable for such equipment (e.g., predominantly sands) to ensure achievement of proper cable burial depth and to minimize the use of cable protection (concrete mats or rock) to avoid potential adverse impacts to the commercial fishing sector. CRMC requested that SFW identify specific areas of seabed where specific trenching techniques will likely be used.

3. Graphic(s) showing the proposed SFW WTGs and Export Cable (“EC”) in relation to the currently existing CRMC-identified glacial moraines depicted in §§ 11.10.2(F) and (G) of the CRMC Ocean Special Area Management Plan (“Ocean SAMP”). CRMC requested that non-confidential geotechnical data be filed with CRMC to aid in determining whether the SFW Project elements fall within a glacial moraine, moraine edge, or area of particular concern.
4. Fisheries monitoring plan detailing the specifics of what commercial and recreational species SFW intends to monitor, the proposed survey methods, and the timing of the surveys to meet the requirement of a biological assessment of the relative abundance, distribution, and different life stages of these species at all four seasons of the year. CRMC noted that the assessment should comprise a series of surveys, using survey equipment and methods appropriate for sampling finfish, shellfish, and crustacean species at the Project’s proposed location. CRMC stated that SFW should perform the assessment at least four times: pre-construction (to assess baseline conditions); during construction; and at two different intervals during operation (i.e., one year after construction and then post-construction), and should capture all four seasons.

This response addresses each category of requested data and information.

**I. Alternate Layout Increasing WTG Spacing to 1 x 1 NM Grid, North – South and East - West**

CRMC requested that SFW “consider increasing the spacing between WTGs [Wind Turbine Generators] to 1 nautical mile [NM]” as recommended by the Commercial Fisheries Center of Rhode Island “in an attempt to accommodate the commercial fishing industry and avoid potential adverse impacts.” For its authority to make this request, CRMC cited § 11.10.1(C) of the Ocean SAMP, which states that offshore developments “not have a significant adverse impact on the natural resources or existing human uses of the Rhode Island coastal zone.” 650-RICR 20-05-11.10.1(C).<sup>2</sup> CRMC further stated that “it is imperative that wind turbines [WTG] be installed by all renewable energy developers throughout southern New England waters in a consistent grid pattern of east-west orientation with a minimum 1 nm spacing between turbines to enhance safe navigation and operations of all recreational and commercial vessels.” CRMC concluded that, “Given a positive outcome with the issues detailed above,” including the information regarding trenching equipment discussed below, “the CRMC could then likely conclude that the SFWF project has been modified to avoid unnecessary impacts and meets its burden of proof under enforceable policy § 11.10.1(C).”

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<sup>2</sup> Subsequent citations to the Ocean SAMP will include only the specific section referenced.

As set forth in the SFW COP, SFW has committed to the uniform WTG layout grid with 1 NM spacing both east-west/north-south that goes beyond CRMC's initial request. In addition, the grid points in SFW will align with adjacent WTG points so that all of the Ørsted /Eversource offshore wind installations in the Rhode Island/Massachusetts Wind Energy Area will be in a continuous uniform grid layout. The grid layout and turbine spacing represent an important modification of the Project to avoid and/or mitigate potential impacts. This modification is also a significant concession by SFW. The grid pattern constrains SFW's ability to design and install a layout that would otherwise optimize production from each WTG. Consistent with CRMC's statements in its Letter, SFW respectfully asks CRMC to conclude that the SFW Project has been modified to avoid unnecessary impacts and meets its burden of proof under enforceable policy § 11.10.1(C).

## **II. Specification of Trenching Equipment**

Relying further on § 11.10.1(C), CRMC's Letter stated that "it will be important to achieve proper cable burial depth to avoid unnecessary use of cable protection that has a potential to snag mobile gear (trawling nets)." CRMC requested additional information regarding SFW's expected use of hydraulic and mechanical trenching equipment and requested specifically that SFW (1) "limit the use of hydro-jet plow trenching only to sea bed areas that are suitable for such equipment (e.g., predominantly sands) to ensure achievement of proper cable burial depth"; (2) "minimize the use of cable protection (concrete mats or rock) to avoid adverse impacts to the commercial fishing sector"; and (3) "identify specific areas of sea bed where specific trenching techniques will likely be used."

SFW plans to bury the cable beneath the seabed. Burying the cable is a means of protecting it from potential damage caused by various external forces (e.g., fishing equipment, anchors), and also protects fishing gear from potential damage. As outlined in the SFW COP, SFW will select from several different types of cable installation tools to achieve sufficient burial depth. Those tools include the following: mechanical cutter, mechanical plow, and jet plow.

A cable burial feasibility assessment was conducted by Fugro and is in the COP. This assessment included review of the geophysical and geotechnical data to assess the feasibility of achieving certain target cable burial depths. Geotechnical data were assessed to infer density/strength of sediments and particle sizes. Seismic data were used to interpolate ground conditions between geotechnical data locations. Based on the data evaluated, the assessment concluded that target burial depth can be achieved for the vast majority of the cable routes with the use of appropriate equipment. SFW commits to the use of such equipment, which will also limit the need for cable protection to approximately 5-10% of the cable route to avoid adverse impacts to the commercial fishing sector.

The selection of trenching technique(s) for specific areas will be based on final siting and engineering design. Based on preliminary design, the majority of the total cable route is expected to achieve burial depth with jet-plow trenching. In areas with boulders or harder bottom, mechanical cutting tools in conjunction with mechanical or jet plows may be used to achieve burial depth.

### **III. Identification of Glacial Moraines**

Citing to the enforceable policies identified in §§ 11.10.1(I), 11.10.1(J),<sup>3</sup> and 11.10.2(A), CRMC’S Letter stated that “CRMC is obligated through § 11.10.1(J) to protect sensitive habitat areas where they have been identified through the Site Assessment Plan or Construction and Operation Plan review processes.” The Letter further stated that, “While the [SFWF/SFEC] project may not be located within a glacial moraine, there is no graphic or other evidence within the COP that clearly shows that the project is not located within a glacial moraine as depicted within §§ 11.10.2(F) and (G) of the Ocean SAMP.” CRMC requested graphics demonstrating that the Project does not fall within currently existing CRMC-identified glacial moraines, moraine edges, or Areas of Particular Concern (“APC”).

On July 31, 2020, SFW submitted to CRMC a report prepared by INSPIRE on “Glacial Moraines and Benthic Habitats: Delineation of Seabed Classification and Benthic Habitats for South Fork Wind Farm and Export Cable (the “Report”). This Report provides a detailed assessment of the ocean bottom occupied by the SFW Project and is incorporated by reference as if set forth fully herein. The Report contains the graphics that CRMC requested in its Letter.

As noted in the Report, WTGs 1, 8, 9, and 10, the two alternative WTGs and parts of the Inter-array cable are located within habitat areas of glacial moraine, and sand and muddy sand. The location of the Project structures as shown in the Report is based on SFW’s commitment to site the WTGs in a 1NM x 1 NM grid.<sup>4</sup> SFW will microsite these structures to avoid and or minimize placement in glacial moraine to the extent feasible given the 1 NM x 1 NM commitment, ongoing regulatory consultations and engineering/installation constraints. To the extent that these structures are not moved or are moved only partially out of the glacial moraine, SFW states that all feasible efforts have been made to avoid damage to the APC resources and values of glacial moraine and that the structures will not result in significant alteration of the values and resources of the APC because:

1. The complexity of the APC will not be permanently altered. Boulders that provide structural complexity will not be removed but will be relocated so they remain within the APC;
2. Scour protection layers, where present, will introduce structural complexity within or adjacent to the APC;
3. The structures will not negatively alter the bottom topography characteristics of the APC that allows for habitat diversity and complexity and resultant species diversity. Relocated boulders will provide habitat for attached fauna, refuge for fish and other marine life, and spawning habitat; and

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<sup>3</sup> Since the date of the Letter, CRMC has renumbered §§ 11.10.1(I) and 11.10.1(J) of the Ocean SAMP as §§ 11.10.1(H) and 11.10.1(I), respectively, but the language in each remains the same.

<sup>4</sup> SFW notes that there are no practicable alternatives that are less damaging outside the APC.

4. Physical disturbance of boulder relocation and installation of Inter-array cables and WTGs on APC habitats will have only a temporary effect on fish and other marine life based on biological recovery observed at Block Island Wind Farm within a year.<sup>5</sup>

#### **IV. Fisheries Monitoring Plan**

Finally, CRMC cited to the enforceable policy contained in § 11.10.9(C), which required that “a biological assessment of commercially and recreationally targeted species shall be required within the project area for all offshore developments.” § 11.10.9(C). The Letter stated that the fisheries monitoring plan SFW submitted to CRMC on November 13, 2018, “lacks specificity to develop a comprehensive pre-construction baseline data set necessary to assess targeted commercial fisheries species that are typically harvested from the area” and that SFW’s fisheries monitoring plan would need to include a gillnet survey design to establish a baseline assessment of demersal finfish and an assessment and monitoring plan for shellfish and crustacean species, including pelagic fish and molluscan shellfish. The Letter concluded that “a more robust monitoring plan will be required for the CRMC review that outlines the specifics as to what species will be monitored and what methods will be used and when the surveying will be conducted to demonstrate compliance with enforceable policy § 11.10.9(C)(1).”

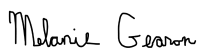
On September 30, 2020, SFW submitted to CRMC its revised Fisheries Research and Monitoring Plan (the “Plan”), which is incorporated by reference as if set forth fully herein. This Plan was developed in accordance with recommendations made in “BOEM’s Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf” and by state agencies, including CRMC. SFW refined and expanded the Plan through an iterative process that considered feedback from CRMC, the FAB, and multiple additional stakeholders including state and federal agencies and members of the fishing community.

#### **Conclusion**

As set forth in this response and the other Project submittals, including the COP, SFW has provided to CRMC the information that directly addresses each of CRMC’s requests. SFW therefore respectfully asks that CRMC find the SFW Project consistent with the Ocean SAMP enforceable policies.

Please feel free to contact me if you would like to discuss these matters further.

Sincerely,



Melanie Gearon, Permitting Manager

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<sup>5</sup> Guarinello, M.L. and Carey, D.A. 2020. Multi-modal Approach for Benthic Impact Assessments in Moraine Habitats: a Case Study at the Block Island Wind Farm. *Estuaries and Coasts*, <https://doi.org/10.1007/s12237-020-00818-w>.