



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

March 14, 2024

Jennifer Flood
Authorized Representative – SouthCoast Wind Energy LLC
101 Federal Street, Suite 1900
Boston, MA 02110

**Subject: Application for New Dredging and Transmission Line Installation
SouthCoast Wind Energy LLC
Water Quality Certificate File Number 23-044
Dredge Permit Application Number DP-23-198**

Dear Ms. Flood:

The Department of Environmental Management (DEM) has reviewed the above referenced project for compliance with the Federal Clean Water Act Section 401 (33 U.S.C. Section 1341 *et seq.*), the *Rules and Regulations for Dredging and the Management of Dredged Materials (250-RICR-150-05-2)*, effective January 4, 2022 (the “Dredging Regulations”) and the *State Water Quality Regulations (250-RICR-150-05-1)*, effective January 4, 2022 (the “Water Quality Regulations”).

Project Description

The Applicant proposes to construct the SouthCoast Wind Export Cables (the Project) that will include the following:

- Installation, operation, and maintenance of two underwater power export cables and associated communications cabling, each approximately 20.3 miles long.
- Placement of fill for secondary cable protection in state waters over proposed underwater export cables to protect segments of the submarine export cables and existing utilities.

- Installation of the underwater export cables at the Project's proposed landfall construction areas utilizing horizontal directional drilling (HDD) with work including temporary excavation/dredging at eight offshore HDD pits.
- Two submarine export transmission cables (320 kilovolt high voltage direct current (DC)) have been proposed for the project. Each cable measures approximately 20.3 miles in length and has been proposed to be installed in Rhode Island Sound (approximately 5.3 miles), the Sakonnet River (approximately 11 miles) and Mount Hope Bay (approximately 4 miles), making landfall in Portsmouth, Rhode Island. One landfall construction area is located on the northeast side of Portsmouth. A second landfall construction area is located on the northwest side of Portsmouth. SouthCoast Wind proposes installing the cables at a target burial depth of 4-6 feet below the seabed using a combination of jet-plowing and mechanical plowing, which will create a total estimated disturbance of approximately 137 acres within state waters. Secondary cable protection in the form of rock bags, concrete mattresses, and/or rock berms may be used where the target burial depth cannot be achieved.
- Secondary cable protection will be necessary for any crossing of existing cables or pipelines. SouthCoast Wind estimates up to 15 percent of the cable route may require some form of secondary protection. Any proposed cable protection necessary to protect segments of the export cable or existing utilities is considered placement of fill in state waters.

The export cables will make landfall at properties identified as Map 25, Lot 50; Map 25, Lot 1; Map 19, Lot 89 and Map 8, Lot 1 via horizontal directional drilling (HDD) between eight temporary exit pits approximately 1000 feet offshore and the Transition Joint Bays onshore. The eight temporary HDD offshore exit pits are estimated to be 150 feet in length and 60 feet in width. The estimated soil volume to be excavated for the proposed offshore exit pits is approximately 14,932 cubic yards, and all excavated material will be loaded onto a support barge for reuse in filling the exit pits and no side casting of excavated material will occur.

The Project and associated activities will take place in State waters identified as Rhode Island Sound, the Sakonnet River, and Mount Hope Bay, Class SA.

Public Comments

This project public notice was issued on February 6, 2024, for a 30-day comment period ending March 7, 2024. A Public Comment Hearing was held on February 22, 2024 at the Portsmouth High School. The notice received two hundred ninety-one (291) written comments. The Public Comment Hearing received thirty-seven (37) oral comments. The written and oral comments have been documented and reviewed and taken into consideration in this Dredging Permit and Water Quality Certificate.

Conditions

It is the opinion of the DEM that said project is in compliance with the Dredging Regulations and Water Quality Regulations provided that the Applicant complies with the Environmental Report and the following conditions.

1. All work shall conform to the Environmental Report and plans submitted with the “Water Quality Certification Program Application” and the “Application for Marine Dredging and Associated Activities”. See Table 1 below:

Table 1. Contents

TITLE	DESCRIPTION
<p>Application for State Water Quality Certification and Marine Dredging Permit and Associated Activities, SouthCoast Wind 1 Project, March 16, 2023</p> <p>Site Plans titled: <i>SouthCoast Wind 1 Project, Attachment C-1: Offshore Export Cable Engineering Drawings</i>, Prepared by Xodus Group, LLC, 19 Sheets, revised February 2023.</p> <p>Site Plans titled: <i>SouthCoast Wind 1 Project, Attachment C-2: 30% HDD Engineering Drawings and Dredge Calculations</i>, Prepared by Power Engineers, Sheets 1 to 9 of 9, dated March 2023.</p> <p>SouthCoast Wind 1 Project, Amended Narrative, October 2023</p>	<p>Project Description: Affected Environment, Potential Impacts, and Proposed Avoidance, Minimization, and Mitigation; Regulatory Standards; Appendices</p> <p>Response to DEM comments issued August 11, 2023</p>

2. Any change to the plans identified in Condition 1 resulting in changes in construction methodologies approved in this Dredging Permit/Water Quality Certificate (the “Permit”) shall require the Applicant to notify DEM of the proposed changed and receive written approval prior to undertaking any work not authorized by the Permit. A new or amended Permit may be required if the route of the transmission cable changes due to requirements of any state, local, or federal permit or authorization.

3. The Applicant must notify DEM seventy-two (72) hours in advance of commencing dredging and/or construction activities so that DEM is available to inspect work covered by this Permit.
4. The Applicant shall designate a third-party Environmental Compliance Monitor for this project whose responsibilities shall include ensuring the project complies with the requirements of this Permit (onshore and offshore within State jurisdictional limits) and that all necessary reports are made on a timely basis. Prior to the start of construction, the Applicant shall provide to DEM the name, phone number, email, and qualifications of the Environmental Compliance Monitor assigned to the project.
5. A copy of this Permit and referenced plans and documents shall be provided to the cable installation contractor prior to the start of construction.
6. A copy of this Permit and referenced plans and documents shall be kept on the major construction vessels and landward construction sites, including the HDD pit locations, during all phases of construction. Access to the electronic copies of this Permit and referenced plans and documents shall satisfy this condition.
7. DEM staff shall have the right to enter and inspect the area and activities subject to this Permit at reasonable hours to evaluate compliance with the conditions stated in this Permit and may require the submittal of any available data deemed necessary by DEM for that evaluation.
8. All vessels used in the Project shall be maintained in the sea-worthy condition. Construction and construction-support vessels shall, at a minimum, implement best management practices to control discharges that are prohibited in State waters. All vessels that contain dredged material working in state waters are required to always have a Dredging Quality Management Program (DQM) on board and be operational.
9. Construction sequence plans must be updated and provided to DEM 90 days prior to construction commencing. This plan shall include cable installation and pulling timeframes, as well as timing of any additional excavation required and anticipated volume of excavated materials. Final reports must be submitted to DEM within 90 days after completing construction activities.
10. Dredge Window: The proposed dredging activities as described in the permit application must adhere to the following time of year restrictions and conditions.
 - A. Cofferdam installation – If cofferdams are used at HDD pits, they shall be installed via a vibratory hammer and shall not be limited to a time of year restriction.
 - B. HDD temporary excavation pits – The proposed HDD approach as described in the permit application may occur anytime between October 15 and January 31. Dredge material stored on a support barge must remain wet if reused to fill

the exit pits. If the dredged materials begin to dry out, seawater must be pumped onto the spoils to rewet the material. The DEM Water Quality and Marine Fisheries Programs are to be notified a minimum of 72 hours in advance of any effort to re-wet any dredge material stored on barges in order for staff to witness the operation and make any necessary recommendations based upon observed conditions.

- C. Cable burial – The Applicant has proposed the following cable installation methods: jetting sled/plow, jetting ROV, pre-cut plow, mechanical plow, mechanical cutting ROV system, or vertical injector. Use of these technologies may occur in state waters between October 15 and January 31. To ensure disturbance to sensitive habitats is minimized, the Applicant shall provide a Cable Burial Work Plan outlining where and when each burial method will be utilized for DEM review and approval 120 days prior to implementation. Additional requirements of the Cable Burial Work Plan are described in Condition 14.
- D. Cable joints – Cable jointing activities must occur between October 15 and January 31. Cable joint post-burial methods shall be described in the cable installation plan and shall be restricted to the cable burial methods described above.

- 11. Prior to commencement of dredging, the Applicant is required to conduct a shellfish survey of the proposed exit pit area to be dredged and if deemed necessary by DEM, relocate shellfish from the area prior to dredging in accordance with the process described in the DMF “Guidance for Conducting Shellfish Surveys for Dredging Projects” document.
- 12. The Applicant shall submit a sediment sampling and analysis plan for DEM review and approval between issuance of this permit and 180 days prior to the commencement of dredging and cable jet plow installation. The sediment sampling plan shall be designed in conjunction with the Hydrodynamic and Sediment Transport Modeling Report and the Sediment Sample Grain Size Analytical results to ensure that water quality standards are met. Sediment sampling test results shall be submitted to the DEM for review and approval at least 90 days prior to the commencement of dredging and cable jet plow installation. If sediment testing and analysis result in a water quality standard not being met pursuant to Rule 1.10 of the Water Quality Regulations, a mitigation plan will be required for review and approval by DEM at least 60 days prior to the commencement of dredging and cable installation activities.
- 13. Unexploded Ordnance (UXO) Mitigation: The DEM and Coastal Resources Management Council (CRMC) shall be notified immediately of the discovery of any potential munitions or explosives of concern (MEC) or unexploded ordnance during the cable burial operations. The Applicant shall coordinate the preferred method of

mitigation with the DEM, CRMC, and other appropriate agencies in consultation with a MEC/UXO specialist.

14. Cable Burial Work Plan: The Applicant shall submit a Cable Burial Work Plan for review and approval by DEM at least 120 days prior to the start of construction. The Work Plan shall include all elements of the trenching and dredging work in areas within DEM regulatory authority and at a minimum, a detailed schedule, locations where each technology will be utilized, weather and equipment contingency plans, a detailed list of all equipment and vessels to be utilized, and a detailed anchoring and spud plan.
15. Cable Burial Plan: Prior to the submittal of the Cable Burial Work Plan, the cable installation contractor shall complete and provide to the CRMC and DEM the "Cable Burial Plan." This study shall include a detailed assessment of the anticipated sediment conditions, potential unforeseen conditions, and the proposed cable installation method. This study shall be included and incorporated into the work plan.
16. Cable Burial Depth: The project shall be required to reach a minimum cable burial depth of four (4) feet, with a target cable burial depth of four (4) feet to six (6) feet, or deeper along the entire length of the export cable in state waters. Burial depth shall be determined from the top of the cable below existing seabed. In cases where the minimum burial depth of four (4) feet cannot be achieved due to cable and pipeline crossings, machine failures, or unforeseen adverse bottom conditions, the Applicant will be required to attain minimum burial depth where they confirm depth can be achieved through reburial. Where the Applicant confirms reburial will not achieve minimum burial depth, the Applicant will confirm the acceptable burial depth from the cable burial risk assessment approach (i.e., that assesses seabed conditions, seabed mobility, and the risk of interaction with external hazards such as commercial fishing gear and vessel anchors engineered zonally along the route).
17. Cable Burial Tools: The Applicant is required to use the best tool from their list of available tools (described in the application and supplemental information provided) to achieve a proper cable burial depth, in accordance with their cable burial work plan. The Applicant expects to use a jetting sled/plow, jetting ROV, pre-cut plow, mechanical plow, mechanical cutting ROV system, or vertical injector as the proposed methods of burial on all segments of the RI portion of the ECC. The Applicant shall simultaneously lay and bury cables in state waters unless ground conditions are inappropriate or technically unfeasible.
18. Cable Burial During Construction: The Applicant shall mitigate against the risk of not achieving target burial depth by using one or more of the following options, depending on tool choice:
 - A. using the geometry of the plow relative to the seabed and where necessary adjusting the tool settings;

- B. tuning the jetting system to the soil types encountered along the route as necessary;
 - C. remotely adjusting the depth of burial on the plow during operations as necessary;
 - D. monitoring and managing tow forces, shear depth and plow speeds in the event hard clays are encountered;
 - E. performing continuous, real time mechanical cutting performance validation to ensure the tool is operating as per the contractor specification, ensuring the tooling performs optimally for the given burial requirements and the as-encountered ground conditions;
 - F. performing continuous, real time burial performance validation, understanding cable burial versus the given burial requirements and the as-encountered ground conditions; or
 - G. other methods to be approved by DEM prior to implementation.
19. Avoidance of Submerged Aquatic Vegetation: Construction activities cannot occur within 400 feet of submerged aquatic vegetation (SAV). At least 90 days prior to construction, the Applicant must provide survey data demonstrating that activities sufficiently avoid SAV. Surveying must occur during the peak SAV growing season (between July 1 and September 15) in the year prior to construction. The Applicant shall include the date(s) of the SAV survey and indicate if the cable burial location or HDD pit locations must be revised to maintain the 400-foot separation.
20. Secondary Cable Protection: The Applicant shall limit secondary cable protection to the extent shown in their approved plans, such as to areas where the cable presents a risk to marine users and/or the cable, at crossings with other submerged cables or utilities, or other areas in which cable burial is not possible (e.g., cable joints). Where possible, the Applicant will follow environmental recommendations for secondary cable protection including the use of biologically friendly materials (i.e., that does not inhibit epifaunal growth) that mimic as closely as possible the existing surrounding habitat, and be trawlable.
21. Boulder Relocation: The Applicant shall submit for DEM review and approval a boulder relocation plan that ensures sensitive benthic habitats are adequately preserved and that when moved, boulders do not negatively impact essential fish habitat (EFH), impede scientific monitoring and research, or adversely affect fishing, aquaculture, or other activities. If the Applicant conducts boulder relocation trials prior to boulder relocation activities, trial locations must be approved by the DEM in advance of the work. The boulder relocation plan shall be submitted at least ninety (90) days prior to boulder relocation work for review and approval prior to implementation. As described in the application, a boulder shall be defined as > 25.6 cm in diameter. Boulders shall be relocated to areas with similar bottom types within the fifty (50) meter surveyed corridor, where technically practicable. Boulders shall not be placed in areas with submerged aquatic vegetation (SAV), on mussel beds, on complex hard bottom habitats, or where they would impede DEM's scientific

monitoring and research. The Applicant shall also consult with the DEM regarding the relocation of boulders to ensure boulder movement does not adversely affect commercial fishing activity. The boulder relocation plan must be approved by DEM prior to implementation.

Monitoring via video or still image (e.g., drop camera) is required in selected areas (i.e., sampling stations) along the export cable corridor where boulder movement is conducted. Boulder and seabed disturbance monitoring, including monitoring of installed cable mattresses, will align with methodology described in the Benthic Habitat Mapping Report and will occur shortly after installation of the cable, and sampling will be repeated annually for five (5) years post construction. Monitoring reports will be submitted annually, with a summary report assessing the status of habitat recovery following the initial five-year monitoring period. Based on findings and results from the monitoring surveys through year five, CRMC, DEM, and the Applicant will jointly determine if further surveys are required during the lifecycle of the project.

Sampling stations in Rhode Island state waters will be determined post construction and will be distributed across areas where boulder relocation activities occurred, including, but not limited to, three sections of particular concern along the export cable route: (1) northeast of the Mt. Hope Bridge, (2) the area of glacial moraine west of West Island (off Sakonnet Point), and (3) the area of glacial moraine approaching the state-waters demarcation line. Targeted areas and sampling locations within these areas of interest will be identified in the boulder relocation plan and approved by DEM prior to implementation.

Within thirty (30) days of completion of boulder relocation, the Applicant shall notify the National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey and the CRMC and DEM of all locations of relocated boulders.

22. Cable Location: Within ninety (90) days of completing the installation of the RI portion of the ECC, the developer shall submit a post-construction survey of the actual cable location and the proposed cable easement with State Plane Coordinate System and Lat/Lon coordinates for the cable angle points, easement corners/angle points of all secondary cable protection (e.g., concrete mattress, rock berm, rock bags, and fronded mattresses), and an ArcGIS feature class of the installed cables to the CRMC and DEM. The lists of coordinates and the feature class overlaid on a NOAA nautical chart shall also be made available to the CRMC and DEM, as well as the fishing industry within thirty (30) days of installation. All information shall be provided promptly to NOAA's Office of Coast Survey.

The Applicant shall provide measurements to the CRMC and DEM with a map(s) of all measurement station locations. Measurement stations shall include cable portions that achieved the target cable burial depth and cable portions that include secondary protection that did not meet target cable burial depths. Secondary cable protection methods shall be identified on said map(s).

The Applicant estimates 15.2 acres of cable protection, equating to 11.1% of the Total Seabed Disturbance Area (136.6 acres). After submission of the post-installation survey, if the area of the ocean bottom impacted by cable protection exceeds 5% of Total Seabed Disturbance Area estimated within the application, the CRMC and DEM will require marine habitat mitigation to be determined by CRMC and DEM. Mitigation shall not include monetary compensation.

23. Cable Inspection Program: Bureau of Ocean Energy Management (BOEM) requires that a Certified Verification Agent (CVA) be involved at all stages of project development and construction. CRMC and DEM shall require that a CVA be involved during construction for cable burial, secondary cable protection, and EMF monitoring. The CVA shall provide regular monthly reports to CRMC and DEM during all phases of construction.

The CVA shall provide a report to the CRMC and DEM within ninety (90) days of completion.

24. Cable Route Inspection and Post-Construction Monitoring: The Applicant shall submit a Cable Route Inspection and Post-Construction Monitoring Plan for DEM and CRMC review and approval at least 120-days prior to start of construction. This plan shall include a during-construction inspection using a multi-beam survey and a sub-bottom profiler (chirp) to ensure cable burial depth is achieved and inform placement of any secondary cable protection (if necessary) in state waters. Ideally, the entire cable length should be inspected, including federal waters.

This plan shall also include a post-construction inspection to verify cable burial depth, trench reconstitution, and measure and assess electromagnetic field (EMF) levels along the cable route in state waters and ideally the entire cable length, including federal waters. The EMF survey shall be used to assess potential effects of EMF on the composition, life cycle functions, uses, process and activities of fish and wildlife.

Within ninety (90) days of the post-construction assessment (even if required by another agency), the results of the EMF survey will be provided to DEM and CRMC in a public report. If it is determined by DEM that, pursuant to Rule 1.10 of the Water Quality Regulations, there is an adverse impact to the composition, life cycle functions, uses, process and activities of fish and wildlife, the Applicant's EMF expert shall submit a recommendation to address such impact to DEM for review, comment, and approval based on the best available science. All approved recommendations shall be implemented within a reasonable time period.

25. Cable Inspection and Long-term Monitoring Plan: Within 180 days of the completion of construction, the Applicant shall submit a long-term monitoring and operations and maintenance plan for the transmission cables for CRMC and DEM review and approval. This plan shall include details to satisfy at minimum the following actions.

The entire cable route within state waters will be resurveyed using a multi-beam survey approach following the first and second years of operation. Criteria for additional cable route surveys following a severe weather event will also be developed and included in the plan.

The results of the Post-Construction, Year 1 and Year 2 multi-beam cable surveys shall be provided to the CRMC and DEM for review within ninety (90) days of survey completion and include any remedial actions taken or scheduled to occur.

If the three consecutive post-construction surveys show that the cable does not pose a hazard to public safety, navigation, or marine resources, additional monitoring survey frequency may be decreased at DEM and CRMC discretion to every five (5) years thereafter for the operational life of the project. If any survey shows that the cable poses a hazard to public safety, navigation, or marine resources, annual surveys will be performed after corrective action is completed, if required, and until three consecutive surveys show there is no such risk, after which surveys will return to a 5-year cycle.

26. Exposed Cable: In the event that cable inspection and/or monitoring shows an installed cable has become exposed, the cable presents a risk to other marine users or resources, or is at risk of being damaged, the Applicant or successive permit holder shall promptly submit a corrective action report to CRMC and DEM and receive approval from CRMC before implementing corrective measures. Any new materials or modifications from corrective actions shall be recorded in accordance with Conditions 18 and 20
27. Fisheries Monitoring Plan: The Applicant shall submit a Fisheries Monitoring Plan for state waters that shall include, at minimum, a whelk pot survey along the cable route, following a before-after-gradient design and including a tagging component to assess movements across the cables. The Applicant shall consult the DEM Division of Marine Fisheries for the appropriate inclusion of additional species, gear types, and sampling protocols, and shall obtain DEM and CRMC approval for the fisheries monitoring plan prior to implementation.

The Applicant shall implement the fisheries monitoring plan to obtain the specified fisheries monitoring data for a minimum of two (2) full years prior to cable installation, through the entirety of the construction period, and for two (2) years following commencement of cable activation and operation.

The Applicant shall provide to DEM for review and approval a boulder and seabed disturbance monitoring plan to assess cable mattress habitat following installation; this plan shall be submitted at least six (6) months prior to cable installation. This plan shall include visual monitoring (video or photography) and a means of recording observations of any coverage of invasive species. The schedule of monitoring habitats along the cable route shall conform to the timeline for monitoring boulder movement

operations. The monitoring plan and subsequent reports shall be provided to DEM and to other resource agencies for review and comment.

28. Landfall Cable Burial Depth: HDD is required to ensure a minimal burial depth is achieved, as described in the plans titled "SouthCoast Wind 30% HDD Engineering Drawings and Dredge Calculations" submitted with the application. The project shall be required to reach a minimum cable burial depth of nine (9) feet between mean high water and mean low water. A post-installation elevation survey shall be submitted to the DEM and CRMC to confirm this requirement has been followed. This survey shall be submitted within ninety (90) days of the completed installation at the landfall location.
29. Mitigation Requirements: DEM has the authority and shall determine if the construction, operation and maintenance of the Project violates the water quality criteria as defined in Rule 1.10 of the Water Quality Regulations. DEM shall notify the Applicant regarding any such determination and the Applicant shall submit a mitigation plan to DEM within three (3) months of said notification. Mitigation shall be implemented by the Applicant after final review and approval of the mitigation plan by DEM.
30. Prior to initiating construction, all final submarine construction plans and specifications in conformance with this Permit shall be provided to the DEM.
31. DEM shall be notified immediately of any site or operational condition that results in the violations of the requirements noted herein. If conditions are discovered that violate this Permit, dredging operations shall cease until the problem is rectified. Should any stipulations or conditions identified within any other applicable permit be in conflict with the conditions set forth in this Permit, the Applicant shall notify the DEM immediately.
32. The Applicant must obtain all other applicable local, state, and federal permits, including approval from the Rhode Island Energy Facility Siting Board, prior to commencing dredging and jet plow operations.
33. All cables buried greater than thirty-six (36) inches may be abandoned in place at the time of decommissioning. Following abandonment in place, all exposed underwater cables that pose a risk or threat to marine life, commercial fishing practices, or navigation must be either removed or reburied to a minimum depth of thirty-six (36) inches.
34. Material used for fill and construction shall be clean and free of matter that could cause pollution of the waters of the State.
35. No sewage, refuse, or waste of any kind shall be discharged into waters of the State from activities associated with the development of the Project. Any release of

materials from the areas associated with the Project during the construction period will require immediate notification to the DEM.

36. DEM hereby reserves the right to provide a written response to any of the plans and reports required under this Permit. Said response may also include additional conditions and requirements that are deemed necessary upon review of relevant data. Failure of the Applicant to adequately address a written response in a timely manner may be grounds for suspension of the Permit. Failure of the Applicant to adhere to submitted plans required under this Permit may also be ground for a suspension of the Permit.
37. The Port of Galilee, State Pier Number 9 Newport, and Chase Marina shall not be used by the Applicant, or their subcontractors, for the purposes of offshore wind development or survey work. These ports are used solely and exclusively by Rhode Island's commercial fishing industry and Public Utilities Commission-regulated transportation services.
38. This Permit shall expire ten (10) years from the date of issuance.

This is the DEM Dredging Permit. This Permit also constitutes the Rhode Island Water Quality Certification under Section 401 of the Federal Clean Water Act (33 U.S.C. Sec. 1341). Violation of the terms and conditions of this Permit may result in appropriate enforcement action. If you have any questions regarding this Permit, please contact Ronald Gagnon, Administrator in the Office of Customer & Technical Assistance at (401) 537-4013.

Sincerely,

Susan Forcier
Deputy Director

CC: Jeffrey Willis, CRMC
Ruthann Brien, ACOE
Roberta Budnik, ACOE
Rachel Croy, EPA