STATE OF RHODE ISLAND
PROVIDENCE, SC.

COASTAL RESOURCES MANAGEMENT COUNCIL
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

DECISION

Petition Of: REVOLUTION WIND, LLC Application to Construct and Maintain Two 23-Mile Submarine Export Cables through the West Passage of Narragansett Bay to the Cable Landing Location in North Kingstown and Other Associated Facilities.

Docket No: 2021-07-005

Applicant, Revolution Wind, LLC ("Revolution Wind" or "Applicant"), filed an application with the Rhode Island Coastal Resources Management Council ("CRMC" or "Council") for the proposed construction and operation of two export cables and an Onshore Substation associated with its offshore renewable wind energy project in federal waters. The proposed Onshore Substation would be located within the Quonset Point Business Park in North Kingstown. The proposed buried power transmission cables will be routed from the substation and enter Narragansett Bay to the south of Quonset Point. Within the submerged lands of Rhode Island, the cables will follow the West Passage and continue into federal waters. The location and burial of the two export cables, the cable landing at the Quonset Business Park, the construction of the Onshore Substation, and the underground transmission lines to the Onshore Substation will be referred to collectively as "the Project" or "Revolution Wind Project" except where the different Project components are identified for individual discussion and evaluation purposes. The specific details of the Project are set forth below and incorporated herein by reference.

The Council held three public hearings relating to the Project on November 1, 2022, November 22, 2022, and December 13, 2022. All three were held at the Department of Administration, Providence, Rhode Island. All hearings were held pursuant to the Administrative Procedures Act ("APA"), RI General Laws §42-35-1 *et seq.* as well as the Council's Management Procedures, 650 RICR-10-00-1, *et. seq.* The record includes, among other things, Revolution Wind's June 2021 Application for a Category B Assent and subsequent modifications, Supplemental Submissions by Revolution Wind in Support of its Application, including those identified in Attachment A to its Prehearing Memorandum, communications between and among Revolution Wind, CRMC staff, and the CRMC's Fishermen's Advisory Board, the CRMC staff report, hearing transcripts, written public comment, and correspondence involving various governmental agencies. All evidence submitted to the Council pursuant to Revolution Wind's application has been and is available at the CRMC's office, Oliver H. Stedman Government Center, 4808 Tower Hill Road, Wakefield, Rhode Island.

After hearing and deliberation upon all the evidence, legal memoranda, and all arguments submitted by the Applicant, the Council hereby finds the following:

FINDINGS OF FACT:

Project Description:

1. **Submarine Export Transmission Cables**: The Project includes two submarine export transmission cables (275-kilovolt, high voltage, alternating current (AC)). Each cable measures approximately 23 miles in length and will be installed in submerged lands in CRMC Type 4 and 6 Waters in Rhode Island Sound and the West Passage of Narragansett Bay, making landfall at the Quonset Business Park, North Kingstown. The cables will be installed at a target burial depth of 4 – 6 feet (or deeper) below the seabed, which will create a total estimated disturbance of approximately 730 acres of submerged lands within Rhode Island 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. The export cables will intersect with an Area of Particular Concern ("APC") for recreational boating identified in the Ocean Special Area Management Plan, 650-RICR-20-05-11.1 *et seq.* (the "Ocean SAMP").

2. **Onshore Landing**: The export cables will make landfall at the Quonset Business Park, a heavily industrial waterfront, via horizontal directional drilling, which will require the construction of two offshore exit pits.

3. **Onshore Transmission Cable and Onshore Substation**: After joining with the export cables, the Onshore Transmission Cable will follow Circuit Drive northwest to 135 Circuit Drive, where it will cross this property north of the existing driveway and cross the property in a north-northwest direction until reaching the property owned by Quonset Development Corporation. Here the cable will continue north until reaching 101 Circuit Drive. The cable will then continue north across 101 Circuit Drive and 75 Circuit Drive within the existing paved access road to the existing Davisville Substation. At the Davisville Substation, the cable continues west, parallel to the northern property boundary before reaching The Narragansett Electric Company's parcel. After crossing, the cable enters the Onshore Substation tying into the proposed access road. The total cable length is approximately one mile.

4. **Final Plan Set:** The final plan set is a combination of the following plans provided during the review process:

    - The sets titled "Revolution Wind Proposed Onshore/Offshore Cable Transmission Route and Onshore Substation" submitted by Revolution Wind and VHB on June 30, 2021, except as revised below;

    - The set titled "Revolution Wind Proposed Onshore Substation" submitted by Revolution Wind and VHB on June 30, 2021, revised October 7, 2022;

- The set titled "275-KV and 115-KV Transmission Line Onshore Cable Route, Underground Transmission Line Construction Contract Drawings" submitted by Revolution Wind and Burns McDonnell on June 21, 2021, revised September 12, 2022; and

- The set titled "Revolution Wind Proposed Onshore Cable Transmission Route" submitted by Revolution Wind and VHB on June 30, 2021, revised October 7, 2022.

These plans will be considered the "Approved Project Plans."

5. **Davisville Substation and Interconnection Facility:** These proposed activities are being reviewed by the Council separately in CRMC File No. 2021-07-010, under the Freshwater Wetlands in the Vicinity of the Coast regulations.

6. **Public Comments:** This Project's public notice was first issued on October 15, 2021, for a 60-day comment period ending December 14, 2021. CRMC issued a public notice extension for an additional 60 days from the end of the first comment period to February 15, 2022, in response to requests for additional review time by members of the public. During the public notice periods, CRMC received three written comments, and multiple form comments submitted by the same individuals or organizations were counted as a single comment. Comments had reoccurring themes of environmental impacts, the permitting process, impacts on navigation, and fisheries and aquaculture impacts.

CRMC received a letter from the North Kingstown Town Council notifying the Council that it voted that there are no substantive objections to the Project from the Town Council. The letter included concerns from the North Kingstown Conservation Commission for CRMC staff to carefully review the location of the proposed substation in order to protect the wetlands, rare species wetlands and vernal pool areas, and to consider relocating the substation to ensure that protection. Staff looked at these impacted areas with the possibility of moving the sites and concluded that this site location was the least impactful, and with proper layout and storm water design impacts to the wetlands are minimized to the greatest extent possible. Second, the letter raised concerns over the quality of life for residents regarding light pollution and large-scale loss of trees and vegetation. The proposed site provides a buffer of trees from the residential area that after construction will minimize light pollution. The loss of trees and vegetation will be minimized by the facilities being proposed on top of a capped landfill.

The Rhode Island Saltwater Anglers Association ("RISAA") submitted a letter to CRMC detailing concerns regarding impacts to coastal resources, including the fish species their members avidly fish. RISAA is concerned that the timetable for this Project is moving forward without proper consideration of ecological and

fisheries impacts and requested that the data collected include recreational fishing.

In response, Revolution Wind added recreational fishing to its Fisheries and Benthic Monitoring Plan, which was submitted for CRMC staff review on August 24, 2022. RISAA requested and CRMC granted (for an additional 60 days) additional time for RISAA to review and submit additional comments due to the extensive application materials. No additional comments were received from RISAA during the public comment periods. RISAA did submit comments on October 17, 2022; these outline concerns about the impacts to the environment and a request to extend the comment period an additional 6 months.

The Council also received letters from aquaculture leaseholders after the release of the initial staff report, raising concerns about the impacts to their sites due to sediment displacement. The Council acknowledges and accepts staff's clarification on this issue, explained in a letter to the Council on November 1, 2022, stating that the average sediment displacement from the cable-laying process is estimated to be a maximum of one-sixteenth (1/16) of an inch. Seabed preparation activities and excavation of the HDD exit puts are estimated to be a maximum of 3.1 inches.

Gary Dorfman, a private Rhode Island resident, submitted and then met with CRMC to review two sets of comments, which covered a broad range of topics including the selection of the location of the cable route, quality of life and impacts from the cable construction and maintenance and repair of the cables, potential impacts to recreational boating activities.

At the final hearing on December 13, 2022, the Council received the following additional public comments:

- Patrick Crowley, Secretary Treasurer of the AFL-CIO, stated that he and members of AFL-CIO unions supported the Project and believed it was a crucial part of meeting Rhode Island's Act on Climate goals.

- Priscilla De La Cruz, Senior Director of Government Affairs for the Audubon Society and member of several environmental/conservation organizations, stated that she and the organizations she represented supported the Project and believed it was crucial part of meeting Rhode Island's Act on Climate goals.

- David Monti, charter captain, member of RISAA, fishing writer, and community member stated his support for the Project, that the Project had demonstrated it would not harm the fishing industry, and that he believed the Project was necessary to combat the negative impacts of climate change on the fishing industry.

- Gary Dorfman, who previously provided written comments, stated that he did not object to the Project and provided additional verbal comments, noting that the Applicant met with him to discuss his concerns and proposing certain conditions for the Council's consideration.

Also on December 13, 2022, the Council received copies of studies discussing electric and magnetic fields from the North Sea Foundation, the U.S. Offshore Wind Synthesis of Environmental Effects Research (SEER), and Zoe Hutchinson, David Secor, and Andrew Gill.

Project Background:

7. The Revolution Wind wind farm, of which this Project is a component, has been awarded five separate Power Purchase Agreements ("PPAs") from both Rhode Island and Connecticut. These PPAs total approximately 704 megawatts ("MW"), with approximately 400 MW of energy generation for Rhode Island and the remaining approximately 304 MW for Connecticut. Rhode Island and Connecticut share an overlapping power grid, allowing this Project to meet the PPAs for both states.

Rhode Island and Connecticut both aim to increase the amount of renewable energy in their grids and have offered these PPAs to accomplish that goal. Specifically, Rhode Island's State Energy Plan (Energy 2035) has set forth the goal of reducing greenhouse gas emissions by 45 percent by the year 2035. The 2021 Act on Climate set forth enforceable, statewide, economy-wide greenhouse gas emissions reduction mandates that require the State to reduce greenhouse gas emissions by 45 percent below 1990 levels by 2030, 80 percent by 2040, and to achieve net-zero emissions by 2050. The 2022 amendments to the Renewable Energy Standard further accelerate the shift to renewable energy resources by requiring 100 percent of electricity used in the State to be generated by renewable energy resources by 2033. Offshore wind power is considered the most significant renewable energy resource and the best method for Rhode Island to accomplish these goals. The Revolution Wind Project is a major part of achieving these ambitions.

8. The Project is needed to connect the Revolution Wind farm to the electric grid should there be federal approval for the wind farm. Because the Revolution Wind farm is needed, this Project is needed to transmit energy from the wind farm to the electric grid.[1]

[1] The Rhode Island Energy Facility Siting Board reached a similar conclusion regarding the need for this Project in its Decision and Order in *In re Revolution Wind, LLC Application To Construct a Major Energy Facility*, No. SB-2021-01, at 13 (EFSB July 8, 2022).

Variance and Special Exception:

9. The Project requires a variance from the following regulation:

- Collection of less than two years of baseline biological assessments of commercially and recreationally targeted fisheries species before Project construction begins (ref. Ocean SAMP Section 11.9.9).

10. To obtain a variance, the six elements of RICRMP Section 650-RICR-20-00-1.1.7 must be met. First, the Project must demonstrate that the proposed alteration conforms to the RICRMP. Second, the Project must demonstrate that the proposed alteration will not result in significant adverse environmental impacts or use conflicts, including but not limited to, taking into account cumulative impacts. Third, the Project must demonstrate that, due to the conditions at the site in question, the applicable standard(s) cannot be met. Fourth, the Project must demonstrate that the modification requested by the Applicant is the minimum variance to the applicable standard(s) necessary to allow a reasonable alteration or use of the site. Fifth, the Project must demonstrate that the requested variance to the applicable standard(s) is not due to any prior action of the Applicant or the Applicant's predecessors in title. Finally, the Project must demonstrate that, due to the conditions of the site in question, the standard(s) will cause the Applicant an undue hardship. In order to receive relief from an undue hardship, an Applicant must demonstrate inter alia the nature of the hardship and that the hardship is shown to be unique or particular to the site. Mere economic diminution, economic advantage, or inconvenience does not constitute a showing of undue hardship that will support the granting of a variance.

11. Based on the record, and as summarized in this paragraph, the Council concludes that the Project meets the required variance criteria:

- Revolution Wind intends to conduct a ventless trap survey in State waters in partnership with the Rhode Island Department of Environmental Management ("RIDEM") to satisfy the requirement of Section 11.9.9. Kyle Cassidy, a Fisheries and Environmental Specialist in Orsted's Strategic Permitting Department, testified credibly regarding the development and proposed implementation of Revolution Wind's ventless trap survey in State waters. As described in Mr. Cassidy's testimony, Revolution Wind expects to collect 1.5 – 1.75 years of baseline data prior to construction.

- With respect to the first requirement, the Ocean SAMP considers underwater cables as offshore development and identifies the development of offshore renewable energy as an important policy objective. As described in the testimony of Kellen Ingalls, Revolution Wind's Project

Development Director, the Project furthers these important policy objectives by bringing approximately 400 MW of renewable energy to Rhode Island, which will play a large role in helping the State meet the Act on Climate mandates and amended Renewable Energy Standard.

- With respect to the second requirement, the Council finds that the proposed alteration will not result in significant adverse environmental impacts or use conflicts. Revolution Wind expects to collect approximately 1.5 – 1.75 years of baseline biological assessments of commercially and recreationally targeted fisheries species before Project construction begins as compared to the two years required by the Ocean SAMP. Mr. Cassidy testified that RIDEM has conducted a ventless trap survey in State waters since 2006 that uses a similar methodology to the Revolution Wind ventless trap survey. Additionally, according to a statistical analysis of the Revolution Wind ventless trap survey, even with collecting less than the two years of baseline data, the Revolution Wind ventless trap survey will still collect significantly more samples than the minimum required to capture population changes. For these reasons, the Council concludes that the proposed alteration will not result in significant adverse environmental impacts or use conflicts, taking into account cumulative impacts.

- With respect to the third requirement, Mr. Cassidy testified that the Ocean SAMP requirement cannot be met due to the conditions at the site in question. Revolution Wind partnered with RIDEM to develop the State waters ventless trap survey, and this development took time. RIDEM engaged in extensive outreach with local fishermen to design the scope and layout of the survey. This outreach was critical to ensure the survey provided an appropriate baseline and that stakeholders support the survey results. Additionally, Mr. Cassidy testified that supply chain delays beyond RIDEM's control affected the survey start date. These specific conditions of this site and survey resulted in the Ocean SAMP requirement not being able to be met.

- With respect to the fourth requirement, the Council finds that the proposed variance is the minimum variance to the applicable standard necessary to allow a reasonable use of the site. As described above, the testimony demonstrated that Revolution Wind will collect 1.5 – 1.75 years of baseline data as compared with the two years required by the Ocean SAMP. The preexisting RIDEM ventless trap survey has collected data in State waters since 2006 using the same sampling methodology proposed by Revolution Wind. And the statistical analysis of the Revolution Wind ventless trap survey indicated that the survey will still collect sufficient data to capture population changes. The Council therefore considers the requested variance minimal.

- With respect to the fifth requirement, the Council finds that the requested variance is not due to any prior action of Revolution Wind. Rather, as described above, the variance is due to necessary efforts to develop the survey and supply chain delays.

- With respect to the sixth requirement, the Council finds that, due to the conditions of the site in question, the standard will cause Revolution Wind undue hardship. As described in the testimony of Mr. Ingalls, the Project is under tight construction schedules to meet the benchmarks established in the PPAs. As described in the testimony of Megan Eakin, Revolution Wind's Permitting Manager, the Project will adhere to time of year restrictions for construction to minimize any adverse impacts to fish and marine species. As described in the testimony of Gareth Ellis, summarized below, the cable lay process is a 24-hour, seven day a week process. For these reasons, requiring the Project to meet the requirement of Section 11.9.9 would cause an undue hardship because it could cause the Project to miss its construction windows. Requiring the Project to collect two full years of baseline data from the Revolution Wind ventless trap survey would also cause an undue hardship because the RIDEM ventless trap survey dating to 2006 provides supplemental data on which the Ocean SAMP permits Revolution Wind to rely.

12. The Project requires the following special exception:

- Installation of the two export cables in an Area of Particular Concern ("APC") (ref. Ocean SAMP Section 11.10.2 – Recreational Boating APC).

13. To obtain a special exception, the three elements of RICRMP Section 650-RICR-20-00-1.1.8 must be met. First, the Project must serve a compelling public purpose and be one of several listed activities. Second, all reasonable steps shall be taken to minimize environmental impacts and/or use conflicts. Third, there must be no reasonable alternative means of, or location for, serving the compelling public purpose cited.

14. CRMC's Ocean SAMP presumptively excludes all large-scale, small-scale, or other offshore development from APCs. However, the Applicant can rebut this presumptive exclusion if the Applicant demonstrates by clear and convincing evidence that there are no practicable alternatives that are less damaging in areas outside of the APC, or that the proposed project will not result in a significant alteration to the values and resources of the APC. When evaluating a project proposal, the Council shall not consider costs as a factor when determining whether practicable alternatives exist. Applicants which successfully demonstrate that the presumptive exclusion does not apply to a proposed project because there

are no practicable alternatives that are less damaging in areas outside the APC must also demonstrate the following: (1) that all feasible efforts have been made to avoid damage to APC resources and values and (2) that there will be no significant alteration of the APC resources or values. The Applicant successfully demonstrated that the presumptive exclusion does not apply because the proposed project will not result in a significant alteration to the values and resources of the APC and that all feasible efforts have been made to avoid damage to the APC resources and values.

15. Based on the record, and as summarized in this paragraph, the Council concludes that the Project meets the required special exception elements and rebuts the presumptive exclusion from development within the Recreational Boating APC. The same evidence supporting that the Project meets the special exception elements establishes that the Project has rebutted the presumptive exclusion from locating the export cables within the Recreational Boating APC by clear and convincing evidence.

- With respect to the first element, based on the record, including the testimony of Kellen Ingalls described above, the Council finds that the Project fits the criteria for public infrastructure projects such as "utilities" and/or "energy," thereby meeting the first element.

- With respect to the second element, the Council finds that Revolution Wind has taken all reasonable steps to minimize environmental impacts and/or use conflicts. The Council heard testimony on behalf of Revolution Wind from Dr. Drew Carey, who described the origins of the Recreational Boating APC and its connection to buoy racing. Dr. Carey also testified that the Recreational Boating APC is approximately 16,000 acres at the mouth of Narragansett Bay, and that approximately 10 percent of the Recreational Boating APC will be touched by the Project's proposed export cable corridor. Ross Pearsall, Orsted's Fisheries Relations Manager, testified credibly that the height of the recreational boating season in Narragansett Bay and Rhode Island Sound is from Memorial Day to Labor Day, and typically ends by November 1. Mr. Pearsall also testified that buoy racing and distance sailboat racing typically occurs between Memorial Day and Labor Day and generally stops by Columbus Day. Megan Eakin testified that the export cables will be installed in late October and November. Because export cable installation will occur outside the height of the recreational boating season, the Council finds that Revolution Wind has taken all reasonable steps to minimize use conflicts with the Recreational Boating APC.

- With respect to the third element, the Council finds that there are no reasonable alternative means of serving the Project's compelling public purpose because the Recreational Boating APC consists of approximately

16,000 acres across the mouth of the East and West Passages of Narragansett Bay. There are no reasonable alternative means to get the export cables to the landing site at Quonset Point. Additionally, the route of Revolution Wind's export cables aligns with the designated cable corridor of CRMC's Advanced Notice of Proposed Rulemaking amendments to the Red Book.

Export Cables:

16. Revolution Wind will have two submarine export transmission cables that are 275 kilovolt high voltage alternating current ("AC") (the "export cables"). Each export cable will measure approximately 23 miles in length in Rhode Island waters and will be installed in submerged lands within CRMC Type 4 and 6 Waters in Rhode Island Sound and the West Passage of Narragansett Bay.

17. The export cables will make landfall at Quonset Business Park, North Kingstown, at a heavily industrial waterfront via horizontal directional drilling ("HDD"). The details of the HDD are set forth in detail in the CRMC staff report and are incorporated herein by reference. It is the opinion of CRMC staff that HDD is the preferred method to ensure optimal cable burial at the landing location and to minimize the risk of the cables becoming uncovered. Staff further opined that the HDD methods described in the Revolution Wind Category B application materials meet the requirements of the RICRMP and Ocean SAMP. The Council concurs with the CRMC staff on the use of HDD.

18. The export cables' route in Narragansett Bay aligns with the designated cable corridor of CRMC's Advanced Notice of Proposed Rulemaking amendments to the Red Book.

19. The senior electrical package manager for Revolution Wind, Gareth Ellis, testified about route selection for and the installation of the export cables in Rhode Island waters. Numerous surveys of the export cables' route were performed including a geotechnical survey, a geophysical survey, and a magnetometer survey. The surveys are used to develop the methodology for the installation of the export cables.

20. Prior to the export cables' installation, Revolution Wind will prepare a cable burial risk assessment ("CBRA") that will be provided to CRMC staff. The CBRA will determine, among other things, the depth at which remedial burial actions or secondary protection may not be necessary.

21. As described in the testimony of Gareth Ellis, approximately forty-nine (49) boulders will need to be cleared from the export cables' routes in Rhode Island waters using a boulder grab. The boulder grab will lift the boulder perpendicular to where it was found on the route to approximately 10 meters away. Once the

boulders are cleared, a pre-lay grapnel run will be performed on the seabed to clear debris such as ropes or logs. No sand waves need to be cleared in State waters.

22. The record evidence lays out the export cables' installation process after seabed clearance work is completed. Given the more shallow waters north of the Jamestown Bridge, a near shore barge will be used to lay the exports cables to just south of the Jamestown Bridge. One export cable will be laid at a time to the Bridge and then the other export cable will be laid. The installation process is the same for each. A jet plow will be used to create a slim trench into which each export cable will fall. The trench will then collapse on itself and sediment will settle back on top of each cable. A simultaneous lay and burial of each export cable will occur. The cable lay vessel will pick up the cable on the seabed where left by the near shore barge and joint work will be done to join the two cable segments. Such joint work will take approximately seven days per cable. A mechanical plow will then be used to create a trench for each export cable's installation in Rhode Island waters.

23. The Council finds based on the recommendation of the CRMC staff that the target cable burial depth for the export cables in Rhode Island waters is a minimum depth range of four (4) to six (6) feet below the seabed. Burial depth is measured from the top of the export cable to the natural seabed.

24. If target cable burial depth is not achieved, the CBRA will determine if additional trenching is needed for the export cable or if it can be left where it is considering seabed mobility, fishing activity, and other risks. If additional trenching is required to bury the export cable deeper, a Capjet (subsea jet trenching machine) will be used. If subsequently it is found within the CBRA that the export cable is still not buried deep enough and the export cable may be at risk, secondary protection will be placed over the export cable by a separate vessel.

25. As set forth in the staff report and adopted by the Council, secondary cable protection in the form of concrete mattresses, rock bags, and/or rock berms may be used where the target burial depth cannot be achieved.

26. The export cables will cross approximately seven (7) already installed cables and pipes. To make such a crossing, concrete mattresses will be installed for the export cables to cross these pre-existing cables and pipes. Concrete mattresses will then be placed on the export cables for protection. The concrete mattresses are manufactured in a way that allows for trawling over them.

27. Each export cable consists of three individual copper cores that are twisted together. A fiber optic communication cable is also embedded within the twisted cable. On the outside of the entire cable is a steel wire and polyethylene rope armoring that protects the cable and give it stiffness for installation.

28. The cable lay process is a 24-hour, seven day a week process. Revolution Wind estimates that five kilometers of cable will be installed per day.

29. Revolution Wind will perform a post cable installation survey that will identify areas where target burial depth was not achieved and areas where secondary protection was used.

30. Revolution Wind shall make available to the public, including the commercial and for-hire charter industries, information on where secondary protection was used along the export cables' route.

31. An operations and maintenance plan will be developed for the export cables.

Construction Schedule for Export Cables

32. Landfall construction for the export cables is estimated to occur in the fall of 2023. The remaining installation of the export cables is estimated to occur in the later summer and fall of 2024. The construction schedule takes into consideration time of year restrictions. Restrictions on seabed disturbance work run from February 1 to August 31 of each year. The CRMC staff stipulation on Construction Schedule and Time of Year Restrictions must be followed by Revolution Wind.[2]

33. Active export cable installation in submerged lands within Rhode Island State waters is predicted for the months of October and November.

34. The export cables' installation in the submerged lands within the southern portion of Narragansett Bay into Rhode Island Sound will occur in approximately late October and into November.

Electromagnetic Fields ("EMF")

35. The export cables are AC cables. Revolution Wind estimates EMF measured from sections of the export cables requiring secondary protection will generate 1025 milligauss ("mG") at peak loading just above the surface of the secondary protection. In contrast, a cable that has achieved cable burial depth of at least three (3) feet is expected to generate only 82 mG during the same peak loading at the seabed. Modeling further shows that field levels of mG decrease rapidly with distance.

36. Dr. Benjamin Cotts testified credibly on behalf of the Project that at a distance of approximately 10 feet to the side of the centerline of the cable, whether buried to

[2] References to certain staff stipulations in these Findings does not imply that other staff stipulations are not applicable. The final stipulations applicable to the Project are those set forth in the Appendix to this Decision.

a depth of one meter or covered by a concrete mattress, the magnetic field level is approximately 0.5 mG.

37. Dr. Katherine Palmquist testified credibly on behalf of the Project that the milligauss levels modeled for the Project will not cause any effect to fish and crustacean behaviors in Narragansett Bay.

38. The staff report stipulations and the Memorandum of Understanding attached in Exhibit A and described further below identified certain study plans that are expected to add to the scientific understanding of the effects of EMF. The Council adopts these study plans as set forth in the Appendix and Exhibit A.

Certified Verification Agent

39. As required by CRMP Section 1.3.1(H)(2)(3), CRMC staff recommended and the Council approved Revolution Wind's proposed certified verification agent ("CVA"), DNV Renewables Certification, for the Revolution Wind Project. The CRMC staff stipulation on the CVA must be followed by Revolution Wind.

Submerged Lands Lease

40. The Project will require a submerged lands lease and/or license by and between the State of Rhode Island and the Applicant.

Benthic Habitat and Species:

41. The Project will impact benthic habitat and species during construction and decommissioning. The staff report identified that benthic species including blue mussels, sessile gastropods, mollusks, conch, and worms may be impacted by construction and decommissioning.

42. Export cable installation will cause disturbances along the cable corridor with a 1,312-foot disturbance zone due to sediment suspension and deposition. As specified in the staff report, sediment concentrations are expected to return to ambient levels quickly, and in most locations within 4 hours.

43. Dr. Drew Carey testified credibly on behalf of the Project regarding the recovery process for fish resources and the benthic environment following disturbance from cable installation.

44. As described in Dr. Carey's testimony, tiny organisms will float to the surface once the sediment settles, causing fish to return to the area to begin feeding. This first stage of recovery begins almost immediately and takes approximately one to six weeks.

45. During the second stage of recovery, larger organisms – approximately one-inch in size – begin to appear. These organisms are heavily grazed by fish. This second stage occurs approximately three to six months after the disturbance.

46. During the third stage of recovery, deeper-burrowing organisms settle into the area and begin to grow, burrowing very deeply into the sediment. This third stage occurs approximately nine months to one year after the disturbance.

47. As described by Dr. Carey, complete seafloor recovery is anticipated to take approximately 1 – 1.5 years.

48. As the staff report concludes, Revolution Wind does not pose a threat to submerged aquatic vegetation.

49. The Council finds that the record evidence demonstrates that the Project will not have a significant effect on benthic habitat and species.

Fish and Fisheries:

50. As set forth in the staff report, fish and fisheries may be affected by the Project. The Ocean SAMP has many regulatory standards concerning fish and fisheries, and each standard was addressed in the staff report. The Council adopts the findings and conclusions of the staff report with respect to fish and fisheries as if set forth herein.

51. Revolution Wind's Project survey work identified 32 species of fish and invertebrates located within 0.5 miles of the export cable corridor centerline. The Council adopts the findings of CRMC Staff that these species are exposed to impact to behavior and their food supply, from the noise generated and habitat disruption during construction and decommissioning.

52. The Council adopts the conclusion of the staff report that impacts to fish stock area expected to be temporary and localized to the area surrounding the cable corridor.

53. Revolution Wind has minimized impacts on fisheries by siting the Project to avoid direct impacts on important benthic habitats such as eelgrass and selecting construction techniques and equipment to minimize disturbance and alteration of substrate to the maximum extent possible during construction activities.

54. The record evidence demonstrates that Project operation will not have a significant effect on finfish species or crustaceans. Impacts during the operation may occur from cable repairs or secondary cable protection. These operational impacts are expected to be rare events, and if they occurred, any impacts would be comparable to construction and localized to the work area.

55. As more fully set forth in the record and incorporated herein by reference as if fully set forth herein, the effects of the Project on essential fisheries habitat and species that use that habitat will not be significant. Construction activities will result in a small total area of permanent impact across the Project and disturbance from construction will be of short duration. Decommissioning activities for the Project, similar to construction activities will result in temporary disturbances only. When considered together, the combined impacts associated with the construction, operation and decommissioning of the Project on essential fish habitat and essential habitat species are not significant.

Commercial and Recreational Fishing and Boating:

56. Revolution Wind has minimized impacts on marine uses, including commercial and recreational fishing and boating, including the charter boat industry.

57. As set forth above, installation of the export cables will result in temporary displacement of fishing activities in certain areas of Rhode Island waters. Construction will be of a short duration.

58. Operation of the export cables will not have a significant adverse effect on commercial or recreational fishing or boating. Decommissioning will have a temporary impact to fishing activities. Upon completion of decommissioning, the Project area will return to pre-construction conditions.

Marine Mammals and Sea Turtles:

59. The staff report identified three possible impacts to marine mammals and sea turtles from construction and decommissioning: reduction of prey species due to seafloor disturbances, underwater noise from construction activities, and collision risk from a temporary increase in vessel traffic. The Council adopts the findings of CRMC staff as set forth in the staff report with respect to marine mammals and sea turtles. These findings are summarized herein.

60. Potential impacts resulting from seafloor disturbances are expected to be temporary and localized to the area around the cable corridor. Effects on diet and habitat preferences will be mitigated during construction by the relatively small percentage of habitat affected and the availability of similar habitat in the surrounding area.

61. In order to reduce the potential noise impacts, the Project intends to implement a "soft-start" or "ramp-up" before performing any pile-driving, which will allow time for these species to move away.

62. In order to reduce any potential impacts from the temporary increase in vessel traffic during construction, all Project vessels will follow NOAA and BOEM guidelines for marine mammal and sea turtle strike avoidance measures, including vessel speed restrictions. All personnel working aboard these vessels will receive training on marine mammal awareness and marine debris awareness. All regulatory requirements related to the prevention and control of spills and discharges are required to be followed by all Project construction vessels. Project construction vessels will keep required lighting to a minimum in compliance with safety and other applicable requirements.

63. Operation of the export cables will not have a significant adverse effect on marine mammals and sea turtles.

Avian and Bat Species:

64. As discussed above, sediment disturbances from construction and decommissioning have the potential to temporarily impact benthic and shellfish species, which are food sources for bird species. Impacts on diet and habitat preferences should be minimal and temporary, due to the availability of similar habitat nearby.

Cultural Resources:

65. The Council adopts the findings of the staff report with respect to cultural, historic, tribal, and visual resources and incorporates them by reference as if fully set forth herein. Revolution Wind conducted both onshore and offshore archeological resources assessments. Revolution Wind identified certain points of interest along the export cable route through State waters.

66. Revolution Wind has routed the export cables to avoid any submerged cultural resources. In the event that alternative cable routing is not possible, and disturbance will occur within preserved paleolandscapes that are likely to contain cultural and historical resources, Revolution Wind will propose cable installation techniques that will minimize disturbance and impact on the paleolandscapes.

67. The Rhode Island Historical Preservation and Heritage Commission has issued a letter of "no objection" to CRMC issuing a permit for the Project. The CRMC staff stipulations on cultural resources and paleolandscapes must be followed by Revolution Wind.

68. The Council finds that, because the export cables will mainly be buried to a target burial depth of a minimum depth range of four (4) to six (6) feet below the seabed, the export cables will not have any adverse visual impact.

69. Based on the record before it, the Council finds that the Project will not have a

significant adverse impact on cultural, historic, tribal, or visual resources.

Wetlands:

70. In North Kingstown, Revolution Wind identified four wetlands proximate to the Onshore Project Components. All of the identified wetlands are within CRMC regulatory authority under the Rules and Regulations Governing the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast (650-RICR-20-00-2). The Project avoids these wetland resources. Wetland 1, located south of the Onshore Transmission Cable in Circuit Drive, is contiguous to a salt marsh draining to Narragansett Bay. New utility line installations in existing roadways and their cleared shoulders are exempt pursuant to CRMC Rule 6.10. The remaining three wetlands (Wetlands 2, 3 and 4) are proximate to the Onshore Substation in the watershed of Mill Creek. Alteration of portions of the Area of Land within 50 feet of Wetlands 3 and 4 requires approval by the Council. Portions of the disturbed Area of Land within 50 feet of Wetlands 3 and 4 will be replanted in native warm season grasses, wildflowers, and shrubs with mature heights under 15 feet.

Public Access:

71. The Council finds, based on the staff report and testimony submitted at the hearings, that the Project does not implicate concerns regarding the public's access to the shore or other coastal features.

72. The landfall location at Quonset Point is not a coastal beach and will encounter minimum disturbance.

73. The Onshore Substation location is currently closed off to public access by the Quonset Development Corporation because it is a former landfill.

74. The construction of the export cables in State waters will not prevent public access to the shore. The export cables will make landfall at a heavily industrial waterfront.

Permits, Approvals, Consultations and Public Comment:

75. Revolution Wind has conducted all the required consultations and outreach required under the Ocean SAMP and RICRMP.

76. Revolution Wind has engaged in significant agency consultation, including with the United States Army Corps of Engineers, the Environmental Protection Agency, the United States Fish and Wildlife Service, the United States Coast Guard, the Bureau of Ocean Energy Management, the National Oceanic and Atmospheric Administration Agency National Marine Fisheries Service, the

United State Department of the Navy, the Rhode Island Historic Preservation and Heritage Commission, the Rhode Island Department of Environmental Management ("RIDEM"), the Rhode Island Energy Facility Siting Board ("EFSB"), the Quonset Development Corporation ("QDC"), the Rhode Island State Building Code Commission and the Town of North Kingstown.

77. Revolution Wind applied to Rhode Island's EFSB for approval for the onshore substation, transmission facility and cable route. The EFSB requested that an alternative Onshore Transmission Cable route that would move construction activities away from the residential houses along Camp Avenue be evaluated. The alternative route that avoids Camp Ave by turning northwest from Circuit Drive onto private properties including The Narragansett Electric Company ("TNEC") parcel was accepted by the EFSB, and a draft supplement was submitted to CRMC on April 18, 2022.

78. Revolution Wind's application to the Council included a copy of its Building Official Form from the State Building Code Commission for its Onshore Substation within the Quonset Business Park, as well as all the materials submitted to and/or approved by other state and local authorities.

79. Revolution Wind anticipates receiving a Water Quality Certification from RIDEM. The Council finds that the CRMC Assent is conditioned receipt of the RIDEM Water Quality Certification.

80. Based on the record as a whole including the testimony and public comments, the Council finds the evidence demonstrates that the Revolution Wind Project will not have a significant adverse impact on the natural resources or existing human uses of the Rhode Island Coastal Zone as long as all of the stipulations set forth in the Appendix to this Decision are included in the Assent for the Project.

81. The Council finds that Revolution Wind has demonstrated that its Project meets the requirements and burdens of proof in the Ocean SAMP and that its Project will not conflict with any resource management plan or program enacted by the CRMC, will not make any area unsuitable for any uses or activities to which it is allocated by a resource management plan or program adopted by the CRMC, and will not significantly damage the environment of the coastal region.

Mitigation

82. Over the course of three months CRMC staff, CRMC Fishermen's Advisory Board ("FAB") along with their legal counsel and consultant, and Revolution

Wind had met on a weekly basis to discuss and negotiate a compensatory fisheries mitigation package to compensate the Rhode Island commercial and for-hire/charter fishing industry for impacts resulting from the Revolution Wind Project export cables in Rhode Island State waters. Over the same period, Revolution Wind and FAB legal counsel and consultant met multiple times per week to discuss in detail various aspects of the mitigation package including but not limited to data, methodology, fishermen concerns, and fund administration. Throughout this process, all parties have worked diligently and professionally together to make great strides to arrive at the agreement described in the Memorandum of Understanding ("MOU") on mitigation attached hereto in Exhibit A.

83. Revolution Wind used the expertise of the Woods Hole Oceanographic Institution ("WHOI") to develop a baseline fisheries report for impacted fisheries in State waters. This report was improved upon to better reflect impacted fisheries through extensive discussions between WHOI, the FAB and the FAB's legal counsel and consultant with assistance from (RIDEM, Division of Marine Fisheries. These meetings resulted in a narrow range baseline valuation of impacted fisheries in State waters from which discussions and negotiations for a compensatory fisheries mitigation package could begin. The negotiations resulted in the MOU that the CRMC staff recommended be approved as part of the Council's Decision.

84. In addition, attorneys for Revolution Wind and the FAB explained the details of the mitigation for fisheries impacts at the December 13, 2022 hearing. Based on those explanations and the CRMC staff recommendation, the Council approves the mitigation for Revolution Wind set forth in the MOU.

CONCLUSIONS OF LAW:

1. This Council has been granted jurisdiction over the above mentioned Project by reason of Title 46, Chapter 23 of the General Laws of the State of Rhode Island, as amended.

2. As set forth above the proposed alterations do not conflict with the management plan approved and adopted by this Council and in effect at the time the application was submitted.

3. As set forth above the Project has met all the requirements for a variance from Section 11.9.9 of the Ocean SAMP.

4. As set forth above the Project has met all the requirements for a special exception to allow the Project to locate, construct, operate, and maintain the export cables within an Area of Particular Concern as that term is defined in Section 11.10.2 of the Ocean SAMP.

5. As set forth above the Project has rebutted, by clear and convincing evidence, the presumption that all offshore development shall be prohibited in an Area of Particular Concern, as that rebuttable presumption is set forth in Section 11.10.2 of the Ocean SAMP.

6. Provided all conditions and stipulations set forth and referenced herein are complied with, including the stipulations and MOU attached to this decision, the record reflects that the evidentiary burdens of proof as set forth in the Coastal Resources Management Program and Ocean SAMP have been met for this Project.

WHEREFORE, as a result of these Findings of Fact, and Conclusions of Law it appears the proposed activity as set forth herein does not have a reasonable probability of causing a detrimental impact upon the coastal resources of the State of Rhode Island. As a result of these Findings of Fact and Conclusions of Law and provided all modifications and stipulations referenced herein are strictly complied with the Council hereby approves the application subject to those modifications and stipulations referenced herein.

For the Council:

Jeffrey M. Willis, Executive Director

Dated: February 8, 2023

APPENDIX

Staff Stipulations

1. **Cable Burial Work Plan**: The Applicant shall submit a Cable Burial Work Plan for review and approval by the CRMC Council at least 90 days prior to the start of construction of the offshore activities. The Work Plan shall include all elements of the trenching and dredging work in areas within CRMC's regulatory authority. The work plan shall include, at a minimum, a detailed schedule, weather and equipment contingency plans, a detailed list of all equipment and vessels to be utilized, and a detailed anchoring and spud plan.

2. **Construction Schedule and Time of Year Restrictions**: At the request of the RIDEM, the Cable Burial Work Plan shall require a more detailed construction schedule via-a-vis fishery time of year restrictions. In the event that the Project construction schedule changes, the Applicant will be required to provide both CRMC and RIDEM with an updated such schedule, for approval, prior to any changes being made.

3. **Dredge window:** The proposed dredging activities described in the permit application, which includes cable installation using either jet plowing or mechanical plowing approaches, must adhere to the following time of year restrictions and conditions. All in-water construction activities north of the ColRegs Demarcation Line shall occur between August 31 and January 31. No further modifications to this extended dredge window shall be granted.

4. **Dredge Vessels**: 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.

5. **Dredge Pits for Horizontal Directional Drill (HDD)**: All material used during construction must be removed when completed. This includes but is not limited to rock bags or steel casing pipe. This excludes materials that are integral to the cable design, including the HDPE conduit that allows for cable pulling through the HDD and future cable maintenance or replacement. The Applicant will be required to monitor and report to CRMC during construction the process of collecting drilling fluids. This process shall be approved by the Certified Verification Agent and included in the final CVA report.

6. **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 RIDEM the "Cable Burial Plan." This study shall include a detailed assessment of the anticipated sediment conditions, unforeseen conditions, and the proposed cable installation

method. This study shall be included and incorporated into the work plan.

7. **Construction Vessel Monitoring:** The applicant shall provide twice weekly construction schedule and work plan updates via Ørsted's Mariners Briefings. Mariners Briefings will be sent twice weekly via email notification to subscribers of an established email notification list and will be posted simultaneously on Ørsted's Marine Affairs website. Mariners Briefings will include anticipated locations of construction vessels, work areas, and the equipment they will be operating in Rhode Island State waters. The Mariners Briefings advise mariners of work in a detailed 3-day, and a projected 7-day outlook, and are updated and resent out twice a week. This frequency will capture deviations that may occur in the work plan. This will allow harvesters to remove any fishing gear that may be in the work area.

   The applicant will also notify the USCG of cable-laying activity for publication in its weekly First District Local Notice to Mariners. All construction vessels shall have an Automatic Information System operational during all construction activities in state waters. Revolution Wind shall advise mariners of cable laying operations through twice-daily SECURITE VHF radio notifications, and will also provide mariners on the water with construction vessel location and work plan deviations in real time and maintain a listening watch on VHF 16/13. If there is a deviation from the posted Mariners Briefing that will materially affect marine users, Revolution Wind will post a special Mariners Briefing and add an additional radio broadcast over VHF.

8. **Cable Burial Depth**: Target cable burial depth is a minimum cable burial depth of four (4) feet and 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 cannot be achieved due to cable and pipeline crossings, machine failures, or unforeseen adverse bottom conditions, Revolution Wind will be required to attain minimum burial depth where Revolution Wind confirms depth can be achieved through reburial using the Capjet plow or similar method. Where Revolution Wind confirms reburial using the Capjet plow or similar method will not achieve minimum burial depth, Revolution Wind will confirm the acceptable burial depth from the cable burial risk assessment approach (which 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). In cases where this Capjet plow or similar method is unsuccessful in achieving burial depth or in the cases of cable or pipeline crossing, secondary cable protection shall be used to minimize risk to the cables and risk to other water users, including hazards such as commercial fishing gear and vessel anchors.

9. **Secondary Cable Protection**: Revolution Wind shall limit secondary cable protection to the extent shown in their ratified 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 any necessary secondary cable protection shall be constructed of biologically-friendly materials (i.e. that allow epifaunal colonization) that mimic as closely as possible the existing surrounding habitat and be trawlable.

10. **Cable Burial Tools:** The applicant is required to use the best tool from their list of available tools (as described in the application and supplemental information provided) to achieve a proper cable burial depth of 4-6 feet or deeper, in accordance with their cable burial work plan. Revolution Wind expects to use jet assisted mechanical plow as the principle proposed method of burial on all segments of the RWEC-RI route except for at and north of the Jamestown Bridge where lower water depths and bridge height restrictions will require burial by jetting or other appropriate and feasible methods. Revolution Wind shall simultaneously lay and bury cables in state waters unless ground conditions are inappropriate or technically unfeasible.

11. **Cable Burial during Construction**: Revolution Wind 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 plow 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, share depth and plow speeds in the event hard clays are encountered;
e) performing continuous, real time trenching 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; and
f) performing continuous, real time burial performance validation, understanding cable burial versus the given burial requirements and the as-encountered ground conditions.

12. **Boulder Relocation**: As a condition of this permit, the Applicant shall supply a boulder relocation plan that ensures sensitive benthic habitats are preserved to the extent possible and that when moved, boulders do not negatively impact essential fish habitat (EFH), where technically feasible. Boulders shall be relocated to areas with similar bottom types within the 50m surveyed corridor, where technically practicable and shall not be placed in areas with SAV, on mussel beds, or on complex hard bottom habitats. The boulder relocation plan must be approved by RIDEM prior to implementation.

Monitoring via video or still image is required (e.g., drop camera) of selected areas (i.e., sampling stations) along the export cable corridor where boulder movement is conducted. Boulder relocation and seabed disturbance monitoring will align with methodology described in the Revolution Wind Fisheries and Benthic Monitoring Plan and will occur shortly after installation of the cable, and sampling will be repeated annually for 5 years post construction. Monitoring reports will be submitted annually, with a summary report assessing the status of habitat recovery following the initial 5-year monitoring period. Based on findings and results from the monitoring surveys through year 5, CRMC, RIDEM, and Revolution Wind 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 four sections of particular concern along the export cable route: (1) southwest of Dutch Island, which is a known area of commercially important blue-mussel beds, (2) the western shore of Conanicut Island, (3) northeast of Pt Judith and South of Beavertail, and (4) 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 RIDEM prior to implementation.

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

13. **Environmental Compliance Monitor**: The Applicant shall employ an Environmental Compliance Monitor (ECM) to monitor environmental compliance during all construction activities associated with the Revolution Wind Export Cable, the Onshore Transmission Cable, and the onshore substation. The ECM shall be a third- party entity hired by Revolution Wind who is ratified by the Council and reports directly to CRMC. Prior to the initiation of any work on the Project the person/firm chosen to be the ECM needs to be ratified by CRMC.

14. **Cable Route Surveys**: Within ninety (90) days of completing the installation of the Revolution Wind Export Cable in state waters, 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/Long coordinates for the cable angle points, easement corners/angle points of all secondary cable protection (concrete mattress, rock berm, rock bags, and fronded mattresses), and an ArcGIS shapefile of the installed cables to the CRMC and RIDEM. The lists of coordinates and the shapefile overlaid on a NOAA nautical chart shall also be made available to the CRMC and RIDEM, as well as the fishing industry no later than thirty (30) days of installation. All information shall be provided promptly to NOAA's Office of Coast Survey.

The entire cable route within state waters shall be surveyed using multi-beam bathymetry coincident with the submerged cable installation and the placement of any secondary cable protection (if necessary). The entire cable route within state waters will again be surveyed following the first and second years of operation. The results of the as-built, Year 1 and Year 2 multi-beam cable surveys shall be provided to the CRMC review within ninety (90) days of survey completion and include any remedial actions taken or scheduled to occur.

The need for further surveys in the lifecycle of the Project will be determined jointly by CRMC and Revolution Wind and planned based on the findings in the three initial surveys listed above.

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 by CRMC discretion to every 5 years thereafter for the operational life of the Project. If any survey shows that the cable does pose a hazard to public safety, navigation, or marine resources from a cable exposure, annual surveys will be performed after corrective action, if required, is completed and until three consecutive surveys show there is no such risk, after which surveys will return to a 5-year cycle.

In the event that cable monitoring shows an installed cable has been exposed or the cable presents a risk to other marine users, or is at risk of being damaged, the Applicant shall immediately submit a corrective action plan to CRMC. Approval by CRMC shall be required before implementing any corrective action.

15. **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 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 during all phases of construction.

    Following the completion of the burial of the submerged export cable, including the landfall, the Applicant shall develop a cable inspection program and submit it to the CRMC and the CVA. The cable inspection program shall confirm the cable burial depth along the route and identify the need for any further remedial burial activities and/or secondary cable protection. The CVA shall provide the review report to the CRMC within ninety (90) days of completion.

16. **Cable Inspection Long-term Monitoring Plan**: Within six months of Project completion, the Applicant shall submit a long-term monitoring and operations and maintenance plan for the transmission cables for CRMC review and approval. This

plan shall include details for the export cable route surveying to occur following a severe weather event, a post-construction inspection using a multibeam survey and/or side scan sonar to ensure cable burial depth was achieved and to verify reconstitution of the trench. The cable burial depth along the full length of the cable route in state water will be inspected using a multibeam survey and/or side scan sonar at least once every five years. Ideally, the entire cable length should be inspected including into federal waters.

17. **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 is at risk of being damaged, the Applicant or successive permit holder shall promptly submit a corrective action report and receive approval from the CRMC before implementing corrective measures in compliance with the CRMC permit and any order of the Council.

18. **Submerged Cable Fisheries Monitoring Plan**: The application for the submerged cable shall include a fisheries monitoring plan for state waters. Revolution Wind shall consult with the RIDEM Division of Marine Fisheries for the appropriate inclusion of species, gear methods and sampling protocols, and shall obtain CRMC approval for the fisheries monitoring plan.

    Revolution Wind shall implement the fisheries monitoring plan to obtain the specified fisheries monitoring data for a minimum of one full year 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's fisheries monitoring plan may include data the state has obtained as part of ongoing state monitoring activities as a supplement to the applicant's required monitoring data.

    This plan shall be submitted at least six (6) months prior to cable installation, the Applicant shall provide to RIDEM for review and approval a monitoring plan to assess cable mattress habitat following 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 please shall conform to the timeline for monitoring boulder movement operations. The monitoring plan and subsequent reports shall be provided to RIDEM and to other resource agencies for review and comment.

19. **Fisheries Representative**: A third party fisheries representative shall be funded by the assent holder and reviewed and ratified by the Council before beginning construction. This fisheries representative shall be employed for the duration of construction of the offshore activities.

20. **Certified Verification Agent Installation Report**: A Certified Verification Agent

(CVA) shall be present during EMF monitoring, background measurements, and annual monitoring. The CVA shall provide regular monthly reports to CRMC during construction.

The CVA shall provide a post-installation report following Project completion verifying that the submerged cable and landfall installations were completed in accordance with the CRMC ratified plans and specifications and any remedial actions pursuant to the CVA cable inspection program as may be required.

21. **Electromagnetic Fields Study Plan**: The applicant shall conduct a Cable Effects Study as described in the Memorandum of Understanding (MOU) dated December 12, 2022. A copy of the MOU is attached hereto as Exhibit A.

In addition, within six months of project completion, the applicant shall submit a study plan to RIDEM for review and approval to assess electromagnetic field levels (EMP) and burial depth along the entirety of the cable routes to address the potential effects of EMP on the composition, life cycle functions, uses, process and activities of fish and wildlife. The EMF assessment shall be conducted during the first year of cable operations and will include measurements of AC and DC magnetic fields. Within ninety (90) days of the assessment (even if required by another agency), the results will be provided to the RIDEM. The Department will confer with a team of EMF experts that may include staff from CRMC and NOAA Fisheries. If it is determined that, pursuant to Rule 8D of the State Water Quality Regulations, July 2006, amended December 2010, there is an adverse impact from EMF 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 RIDEM for review, comment and approval based on the best available science. All ratified recommendations shall be implemented within a reasonable time period.

Given that the ambient background alternating current (AC) electromagnetic fields at power frequencies along the proposed route of the RWEC cables are vanishingly small and the ambient geomagnetic direct current (DC) electromagnetic field is relatively stable over time and uniform in the project area, measurements of AC and DC magnetic fields at a site sufficiently far from the cables or any existing electrical infrastructure will be representative of background electromagnetic field levels. Therefore, it is Revolution Wind's positions that pre-construction magnetic-field measurements are not needed to assess the effect of the AC current flow on RWEC cables on post-construction field levels.

22. **EMF Monitoring**: At the completion of installation and activation of any submerged renewable energy cable within state waters, the successive permit holder shall monitor EMF levels along the cable during the stipulated cable surveys as defined in the ratified Electromagnetic Fields Study Plan.

23. **Historic and Archaeological Preservation Memorandum**: Final Memorandums of Agreement (MOA) as part of the federal Section 106 process shall be finalized between Revolution Wind and the RI Historical Preservation and Heritage Commission as needed to address/mitigate impacts on Historic properties and Archaeological Resources and when issued copies will be provided to CRMC as with the other federal permits. CRMC defers to RIHPHC and the Tribes in their capacities as consulting parties under the federal Section 106 process. Revolution Wind has submitted an archeological survey to RIHPHC which has issued a letter of "no objection" to the CRMC issuing a permit.

24. **Preserved Paleolandscapes**: In the event that alternative cable routing is not possible, and disturbance will occur within preserved paleolandscapes that are likely to contain cultural and historical resources, the Applicant will propose cable installation techniques that will minimize disturbance and impact on the paleolandscapes after seeking input and advice from the State Historic Preservation Office (SHPO) and the local Tribal Historic Preservation Office (THPO). Revolution Wind will be bound by the terms of the Memorandum of Agreement entered into as part of the federal Section 106 process, and as such, CRMC regulatory authority over paleolandscapes will be satisfied by that Memorandum of Agreement. When issued, copies will be provided to CRMC as with the other federal permits.

25. **Landfall Cable Burial Depth**: Horizontal Directional Drilling is required to ensure a minimal burial depth as described in the plans titled "HDD Overall Site Plan North Kingstown, Rhode Island" submitted with the application is achieved. The Project shall be required to reach a minimum cable burial depth of 9 feet between mean high water and mean low water. A post-installation elevation survey shall be submitted to the 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.

26. **Cable Installation in the vicinity of Freshwater Wetlands**: Onshore cable installation in the vicinity of freshwater Wetlands is hereby allowed within the route defined in the application, provided the following conditions are met:

    a) Existing culverts and the flow of water under bridges in roads or highways are not blocked or disrupted by going under or attaching to such structure;
    b) The Project does not cause any diversion of ground or surface water to or from any wetlands;
    c) The preconstruction contours are restored immediately upon installation;
    d) All disturbed areas are revegetated after restoring contours;
    e) The Project design incorporates best management practices for dewatering from excavated areas; and
    f) All stormwater basins disturbed along the route will be restored to full function.

Furthermore, as a condition of this permit there shall be no direct discharges of dewatering fluids to wetlands, catch basins, or stormwater conveyance systems that discharge to wetlands without proper treatment that effectively removes sediments and other visible contaminants.

27. **Prerequisite State and Federal Agency Approval Requirements**: Upon the Bureau of Ocean Energy Management's (BOEM) issuance of the Record of Decision for the Project, Revolution Wind may engage in construction of any of the following on the condition that the Project has all other applicable permits, approvals and consultations for such work: the onshore transmission cable; interconnection facility; interconnection cables; overhead transmission line reconstruction; onshore substation; and the onshore and offshore horizontal directional drilling at and by the landfall at North Kingstown, Rhode Island. In the event that the Project does not receive BOEM approval of the Construction and Operations Plan and the Final Design Report and Fabrication and Installation Report no objection from BOEM, the Project shall remove all facilities constructed and restore the area to reasonably the same condition as it was prior to construction at the Project's sole expense.

After Revolution Wind has obtain all other applicable permits for the Project. Copies of these approvals shall be submitted to CRMC for File # 2021-07-005.

28. **Research**: Following notice, the Project's supporting structures including export cables shall be available for research projects ratified by the Executive Director that do not affect operation, maintenance, emergency access or warranties. Such availability shall be subject to participants agreeing to execute a release waiving all liability associated with such access and to any requirements of OSHA, ISPS, or other governmental agencies with jurisdiction and the Project owner's site, insurance and HSE procedures and requirements and restrictions in place to protect persons and property.

29. **Permit Expiration**: This permit shall expire thirty (30) years from the date of issuance. Any extension of this permit will require approval by CRMC.

30. **Decommissioning**: The applicant shall submit a decommissioning plan to CRMC at least two (2) years prior to decommissioning for review and approval.

31. **Other Mitigation.** In the report dated December 13, 2022, staff recommended that the MOU in Exhibit A be approved as part of the Council's Decision. The report is attached hereto as Exhibit A. The Council finds the staff's report and the information presented by Revolution Wind and the FAB during the December 13, 2022 hearing persuasive and accepts the staff's recommendation. The applicant shall comply with the terms and conditions set forth in the MOU.

EXHIBIT A

CRMC Staff Report on Mitigation
December 13, 2022

Rhode Island Coastal Resources Management Council

Inter-Office Memorandum

Date: December 13, 2022

To: Raymond Coia, Chairman
Council Members

From: Jeff Willis, Executive Director

cc: CRMC Staff Kevin Sloan, David Ciochetto, Justin Skenyon

Subject: CRMC Application #2021-07-005 Revolution Wind, LLC

Over the course of the past three months the Coastal Resources Management Council (CRMC) staff, CRMC Fishermen's Advisory Board (FAB) along with their legal counsel and subject matter expert, and the Applicant have been meeting on a weekly basis to discuss and negotiate a compensatory fisheries mitigation package to compensate the Rhode Island fishing industry for impacts resulting from the Revolution Wind project export cables in Rhode Island state waters. Over the same period, the Applicant and FAB legal counsel and subject matter expert met multiple times per week to discuss in detail various aspects of the mitigation package including but not limited to data, methodology, fishermen concerns, and fund administration. Throughout this process, all parties have worked diligently and professionally together to make great strides to arrive at the agreement described in the Memorandum of Understanding (MOU) contained within.

The Applicant utilized the expertise of the Woods Hole Oceanographic Institute (WHOI) to develop a baseline fishery report for impacted fisheries in state waters. This report was improved upon to better reflect impacted fisheries through extensive discussions between WHOI, the FAB and the FAB's legal counsel and subject matter expert with assistance from the Rhode Island Department of Environment Management (RIDEM), Division of Marine Fisheries. These meetings resulted in a narrow range baseline valuation of impacted fisheries in the West Passage from which discussions and negotiations for a compensatory fisheries mitigation package could begin.

All parties have cooperated amicably during compensatory fisheries mitigation negotiations to find solutions that will address known impacts from the project to the fishing industry and address potential future impacts which are unknown. For example, in the MOU document contained within, the FAB and the Applicant have agreed a Cable Effects Study will be conducted by RIDEM which will consider potential long-term impacts from the Revolution Wind export cables in state waters. The FAB and the Applicant have also agreed to work together to better refine the Gear Claims Application and application process used by the Applicant to compensate fishermen for lost or damaged gear resulting from project activities to better reflect and compensate for lost time and effort.

Given this, should the Council agree, staff recommends this MOU be approved as part of the Council's Decision.

MEMORANDUM OF UNDERSTANDING

This purpose of this Memorandum of Understanding ("Memorandum") dated December 13, 2022, is to describe the mitigation negotiated among the Coastal Resources Management Council ("CRMC") staff, the Fishermen's Advisory Board ("FAB") that is advisory to CRMC and Revolution Wind, LLC ("Revolution Wind"). The FAB and Revolution Wind request that the Council approve the mitigation described below as the final mitigation to be included in CRMC's Assent pursuant to Sections 11.10.1(F) and (G) of the Ocean Special Area Management Plan for CRMC application 2021-07-005, as further described in CRMC's meeting agenda for December 13, 2022 (the "Revolution Wind Assent").

The FAB, Revolution Wind and the CRMC staff have negotiated the following mitigation package to be included in the Revolution Wind Assent if approved by the Council:

1. **Payments**:
    a. **Direct Compensation** **$3,050,000:**
        *i. - Commercial adj. 2022$ ($2,291,973 x 1.1112)** *$2,546,840*
        ii. - Charter adj. 2022$ ($326,407 x 1.1112) *$ 362,703*
        *iii. - Additional funds ***** *$ 140,457*
    b. **Community Fund** **$ 200,000**
    c. **Trust Operation** **$ 200,000**
    d. **Total Compensation (2022$)** **$3,450,000**

**A sum of $ 513,000.00 shall be deducted from the direct compensation fund and in its place $8409.83 per day shall be paid by Revolution Wind as direct compensation for each day of construction as described in further detail below in Paragraph 3.
*** The additional funds were not tied to any particular outstanding issue. The funds were added in a good faith effort to reach agreement, recognizing the FAB had certain concerns related to outstanding issues. The Total Compensation above represents the agreed-upon total compensation.

2. **Trust**:
    a. Formation: Revolution Wind will establish the Rhode Island Fishermen's Future Viability Trust 3 for Direct Compensation (the "Trust"). The Trust shall establish a claims process to manage and process compensation claims for commercial and for-hire charter fishing operations for mitigation of direct losses/impacts arising from (a) the construction and operation and (b) the decommissioning of the project to be built by Revolution Wind(as defined in the Revolution Wind Assent). The Direct Compensation program is not intended to address or provide compensation for any claims of lost or damaged gear or related economic loss, which must be submitted to the Ørsted Fishing Gear Conflict Prevention and Claim Procedure referenced in Paragraph 4 below. Concurrently with the payment by the Trust of any compensation claim, the party asserting the claim shall execute a release of liability in favor of Revolution Wind, LLC, Ørsted North America, Inc., and Eversource Investment LLC, and any of their affiliated or related parties, from any liability or obligation relating to that particular claim. The Trust shall hire a third-party administrator to act as a technical assistance provider (TAP) to administer and oversee the fund, pay claims, and prepare periodic reports. The TAP shall be a regionally recognized public accounting firm. The Coastal Community Fund shall be established as a non-profit grant making entity to support initiatives for the general betterment of coastal communities in Rhode Island. Other details on the Trust and Community Fund can be found in the draft formation documents sent to the FAB's counsel on December 7, 2022.

b. Payment: Revolution Wind will provide $200,000 to the Trust's account as summarized above in Paragraph 1(c) to be used for the costs of operating the Trust.

3. **Cable Installation Schedule and Per Day Compensation:** Revolution Wind estimates that the installation of the Revolution Wind export cables will take place over the course of sixty (60) days of active cable installation, likely during the months of October and November. For each day of active cable installation, Revolution Wind shall pay $8409.83 per day. The amount of direct compensation generated under this Paragraph is part of the Direct Compensation referenced in Paragraph 1 and shall be paid to the Rhode Island Fishermen's Future Viability Trust 3 within ten business days of the end of each month of active cable installation. For purposes of this Paragraph, the term "day of active cable installation" shall mean any day when the cable installation vessel(s) are in the cable corridor for the actual installation of the cables regardless of whether they are performing any work on the seabed.

4. **Gear Loss Program**: Revolution Wind and the FAB will set up a separate working group to discuss improvements to and simplification of the existing Ørsted gear loss program and claims process. In addition, Revolution Wind agrees to add compensation for reasonable lost time compensation associated with lost gear or snags, if any. Revolution Wind also will add compensation for reasonable claim preparation costs incurred by fishermen.

5. **Cable effects study –** In or about 2027, RIDEM will conduct a survey of Rhode Island fishermen who have historically fished in waters within [2] km of the Revolution Wind Export Cables in RI state waters ("Export Cable Area"), to determine for which species these fishermen have observed a change in species abundance, size distribution, or condition in the Export Cable Area since the activation of the cables. RIDEM may engage external subject matter experts in carrying out this survey and the subsequent analysis.

   RIDEM will determine for which species, if any, to carry out a data analysis. That analysis will examine available fishery-dependent and fishery-independent data on stock/population, catch, landings, and fishing effort to determine whether there has been a statistically significant change in abundance, size distribution, or condition in the Export Cable Area since the activation of the cables, and whether this change is statistically different from changes in other portions of Rhode Island state waters and/or adjacent federal waters. Statistical significance should be demonstrated at a level consistent with the statistical power of the available data. RIDEM may choose to collect additional data to support this effort if necessary and reasonable in cost as mutually agreed upon between RIDEM and Revolution Wind.

   For any species for which RIDEM concludes that statistically significant relative abundance changes have occurred in the Export Cable Area that may be attributable to the presence or operation of the Export Cables, RIDEM will estimate the loss of landed value that can be expected due to this change in relative abundance over the life of the Export Cables. Future losses will be discounted using a real discount rate of 5%.

   The validity of RIDEM's analysis and loss estimate will then be confirmed by an independent expert mutually agreed upon by Revolution Wind and FAB. Upon confirmation of RIDEM's analysis, Revolution Wind will pay the present value of the estimated loss to the Trust. This entire process will be carried out once and not repeated.

6. **Additional Conditions**
   a. Except as otherwise set forth in Paragraph 3, Revolution Wind shall provide the Payments described above in Paragraph 1 within thirty (30) days after the receipt of all final federal,

state and local permits, authorizations, concurrences and approvals necessary to construct and operate the Revolution Wind Project as described in the approved Construction and Operations Plan as amended, such funds to be held in an escrow account or investment account for the Trust;

b. Upon payment of the funds described in Paragraphs 1 and 3, Revolution Wind shall have no further involvement whatsoever with respect to the Direct Compensation Program or Coastal Community Fund. The purpose of the Direct Compensation Program is to provide financial compensation to eligible fishermen for mitigating direct losses/impacts to commercial and for-hire (charter) fishing from the construction, operation and decommissioning of the Project;

c. The mitigation outlined herein is contingent on: (i) CRMC staff recommending this mitigation to the Council; (ii) FAB members not objecting to the mitigation or Application before the Council; and (iii) the Council approving the mitigation as part of the Revolution Wind Assent at the Council meeting on December 13, 2022; and

d. For the avoidance of doubt, if: (i) CRMC does not issue its written final decision and the Revolution Wind Assent; and/or (ii) Revolution Wind fails to receive all final assents (including the Revolution Wind Assent), permits, authorizations, concurrences and approvals then Revolution Wind shall have no obligations hereunder.

e. If any payments are made under Paragraphs 3 and/or 5 or any credit made in Paragraph 3, they will be adjusted for inflation using the U.S. Bureau of Economic Analysis gross domestic product deflator.