#### Memo

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From	Kellen Ingalls, Project Development Director, Revolution Wind
Date	April 19, 2023

**Regarding** File No. 2021-06-029, Revolution Wind Modifications and Mitigation Proposal

The Coastal Resources Management Council (CRMC), Revolution Wind, LLC (Revolution Wind), and the Fishermen's Advisory Board (FAB) have engaged in mitigation negotiations pursuant to the enforceable policies of the Rhode Island Special Area Management Plan (Ocean SAMP) for approximately five months. As CRMC prepares its recommendation to the Council for a public meeting on April 25, 2023, Revolution Wind provides this memorandum to summarize (1) the numerous modifications made to the Revolution Wind project in federal waters to avoid and/or minimize any potential adverse impacts to commercial and recreational fisheries and (2) the comprehensive mitigation package Revolution Wind has proposed to address any remaining potential impacts. Revolution Wind has listened to the concerns of the fishing community and addressed them through meaningful modifications to the Revolution Wind project. The project before CRMC represents the culmination of years of engagement with federal and state agencies, the FAB and greater fishing community, and other stakeholders, and it incorporates the work of countless subject matter experts relying on the best available science.

Specifically, Revolution Wind has committed to the following project modifications and mitigations:

- Adoption of a uniform 1 nautical mile by 1 nautical mile grid layout for wind turbine generators (WTGs) throughout the Massachusetts/Rhode Island Wind Energy Area, which Revolution Wind committed to in its Construction and Operations Plan submitted to the Bureau of Ocean Energy Management (BOEM);
- Commitment to less than 79 11-megawatt WTGs where the design envelope in the Construction and Operations Plan for the Project was up to 100 WTGs. This decrease in WTGs and micrositing efforts will result in less of an impact on the benthic environment;
- Extensive use of fishing gear avoidance tactics, including onboard gear observers, avoidance training, and scout vessels;

- Development of a first-in-the industry gear loss claim process that compensates fishermen for both lost or damaged gear and associated business interruption. As a result of the avoidance tactics, the gear loss claim program has received very few claims. Further, in connection with Revolution Wind's application to CRMC for a Category B Assent, Revolution Wind agreed to work with the FAB to set up a separate working group to discuss improvements to and simplification of this existing gear loss program and claims process. Revolution Wind already has reached out to FAB representatives to initiate this working group. Revolution Wind also agreed to add compensation for reasonable claim preparation costs incurred by fishermen;
- Creation and implementation of a comprehensive fisheries communication plan that incorporates input from state agencies and the fishing community;
- Employment of fisheries liaisons to serve as points of contact for local fishermen;
- Development of a robust Fisheries Monitoring Plan based on extensive feedback from CRMC, other federal and state agencies, fishermen and other users of the Revolution Wind Project area;
- Commitment to targeting sufficient cable burial depth;
- Commitment to limiting secondary cable protection to the extent practicable;
- Commitment to relocating boulders to ensure that sensitive benthic habitats are preserved to the extent possible and that when moved, boulders do not negatively impact essential fish habitat, where technically feasible. Revolution Wind will relocate boulders to areas with similar bottom (seabed) types within the 50m surveyed cable corridors where practicable and will avoid placing them in sensitive or complex hard bottom habitats. Revolution Wind also will group boulders together where technically practicable, in order to prevent new hangs.
- Adoption of pile-driving noise attenuation measures based on modeled 10dB broadband underwater noise reduction levels;
- Commitment to sound source verification measurements during foundation pile driving to verify in-situ underwater noise levels;
- Adherence to time-of-year restrictions for construction to minimize impacts to certain marine species; and
- Incorporation of automatic identification system, enhanced cellular, and very-high frequency coverage into all WTGs.

These project modifications are substantial. They demonstrate Revolution Wind's responsiveness to the commercial and recreational fishing communities for the continued long-term use of the project area by fishermen. By working with CRMC, Revolution Wind has eliminated or minimized significantly any potential adverse impacts of the project to commercial and recreational fisheries.

Notwithstanding these extensive modifications and mitigations, Revolution Wind has recognized that aspects of the project in federal waters, particularly construction and decommissioning, may present some potential impacts that require additional mitigation. Revolution Wind therefore engaged the Woods Hole Oceanographic Institution (WHOI) to examine potential impacts to fisheries from the Revolution Wind project in federal waters and provide an economic assessment of such impacts.

In addition, the Revolution Wind team has worked with the FAB's consultant and incorporated feedback from him and the FAB to account for concerns raised about uncertainty of impacts during the project's operations. Specifically, Revolution Wind has agreed to conduct a first-of-its-kind study that will verify estimated financial impacts to commercial fishing from the Revolution Wind project during operations. Revolution Wind also has incorporated the draft BOEM guidance as a basis for estimating the operational impacts of the wind farm, including a "ramp down" period after construction to reflect a period of adjustment. The study and "ramp down" adjustment account for and address the uncertainties raised by the FAB and fishing community about post-construction impacts. As a result, Revolution Wind's mitigation proposal has evolved and incorporates this assessment into its compensatory mitigation proposal described below.

With this comprehensive mitigation proposal, along with the project modifications, Revolution Wind respectfully submits that it has met the Ocean SAMP's requirement to "modify the proposal to avoid and/or mitigate" any "potential adverse impacts." See 650 RICR §§ 20-05-11.10.1(C), (F).

Specifically, Revolution Wind's compensatory mitigation package consists of the following elements:

- Direct Compensatory Mitigation: Revolution Wind will provide \$12,000,000 (NPV) as direct financial mitigation to Rhode Island fishermen operating in the Revolution Wind lease area and export cable areas in federal waters. This offer represents an approximate 300 percent increase over WHOI's conservative impact analysis and includes the following:
  - An upward adjustment to the baseline data for lobster and Jonah Crab;
  - A match of the loss percentages from BOEM's draft guidance of 100 percent in the first year after construction, 80 percent in year 2, 70 percent in year 3, 60 percent in year 4, and 50 percent in year 5;
  - Additional compensation equal to a 5 percent loss in landed value annually after year 5 as assessed in the WHOI impact analysis; and
  - WHOI's economic multipliers that go beyond what is recommended within BOEM's draft guidance.
- At the request of the FAB, Revolution Wind has agreed to establish a Rhode Island Fishermen's Future Viability Trust to hold the funds and 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 the construction, operation, and decommissioning of the Revolution Wind project.

- Similar to what Revolution Wind agreed to in connection with its Category B application, Revolution Wind will agree to a per-day adjustment, up or down, to the direct compensation amount based on the actual days of active installation of the project during construction.
- Impacts Study: As indicated above, Revolution Wind has worked with the FAB's consultant to develop a reasonable and scientifically defensible study intended to evaluate the effects of the project's operation. Revolution Wind will fund this study up to an amount of \$300,000. If the study concludes that the estimated actual losses to commercial and for-hire/charter fisheries are greater than the anticipated potential losses, Revolution Wind will agree to an adjustment mechanism to pay the difference to the Trust, up to a cap of \$5,000,000. If the study concludes that estimated actual losses are less than the anticipated potential losses, the Trust will pay the difference to Revolution Wind, subject to a cap of \$2,500,000.
- Coastal Community Fund: Revolution Wind will provide \$300,000 for the Rhode Island Coastal Community Fund established by the Orsted/Eversource JV to benefit the fishing industry and Rhode Island's coastal communities through grants.

In addition to this compensatory mitigation, Revolution Wind also has set aside approximately \$333,333 (1/3 of a regional \$1,000,000 fund) for the Rhode Island Navigational Enhancement and Training Program. This is a voucher program to provide eligible fishermen with pulse compression radar systems and AIS transceivers, if they do not already possess them. The Orsted/Eversource JV has preapproved several retailers for participation in the voucher program and various eligible equipment models. Revolution Wind also welcomes input from the fishing community on retailers. The program also provides for fishermen to attend a professional training program of their choice and participate in a session of Orsted's wind farm simulator.

Together, these components represent a total compensatory mitigation package of \$12,933,333 for Rhode Island commercial and recreational fisheries.

Throughout the mitigation negotiation discussions, Revolution Wind has followed the evidence-based decision-making approach of the Ocean SAMP using best available science and modeling tools. Revolution Wind has submitted extensive documentation demonstrating its data-driven, evidence-based commitment to project design, modification, and mitigation, which supports that Revolution Wind has modified and/or mitigated any potential adverse effects to the Rhode Island commercial and recreational fisheries from the Revolution Wind project in federal waters. Because Revolution Wind has shown that its project is consistent with CRMC's applicable enforceable policies, Revolution Wind respectfully requests that CRMC issue its concurrence with Revolution Wind's federal consistency certification.