



BOX 1447, OAK BLUFFS, MASSACHUSETTS, 02557, 508-693-3453,
FAX 508-693-7894 INFO@MVCOMMISSION.ORG WWW.MVCOMMISSION.ORG

Martha's Vineyard Commission

C.R. 12-2023 New England Wind 2 Connector

Staff Report — 2024-3-9

1. DESCRIPTION

- 1.1 **Owner:** Town of Edgartown (seabed)
- 1.2 **Applicant:** Commonwealth Wind, LLC
- 1.3 **Applicant's Agent:** Erin Harizi, Commonwealth Wind, LLC
- 1.4 **Applicant's Agent:** Holly Carlson Johnston, Epsilon Associates, Inc.
- 1.5 **Project Location:** Edgartown waters off Chappaquiddick in Nantucket Sound, largely following the Muskeget Channel.
- 1.6 **Proposal:** Sub-seabed installation of three offshore wind export cables.
- 1.7 **Local Permits/Reviews (Vineyard):** Edgartown Conservation Commission
- 1.8 **Local Permits/Reviews (Elsewhere):** Barnstable Conservation Commission, Mashpee Conservation Commission, Nantucket Conservation Commission, Cape Cod Commission
- 1.9 **State Permits/Reviews:** Massachusetts Environmental Policy Act Office, Massachusetts Energy Facilities Siting Board, Massachusetts Department of Public Utilities, Massachusetts Department of Environmental Protection, Massachusetts Department of Transportation, Massachusetts Board of Underwater Archaeological Resources, Massachusetts Natural Heritage and Endangered Species Program, Massachusetts Historical Commission, Massachusetts Division of Marine Fisheries, Massachusetts Office of Coastal Zone Management.
- 1.10 **Federal Permits/Reviews:** U.S. Bureau of Ocean Energy Management, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Coast Guard, Federal Aviation Administration.
- 1.11 **Surrounding Sea Uses:** The project area sees recreational boating and fishing, commercial fishing, transiting vessels, and harbors at least one set of undersea export cables (Vineyard Wind 1).
- 1.12 **Project History:** Commission has approved similar projects in the same area. See DRI 732 and DRI 688.
- 1.13 **Project Summary:** To trench with a jet plow or other underwater excavation device and bury under the seafloor off Chappaquiddick a total of three 275 kV export cables. The length of the export cables in Edgartown waters will be between 12.4 to 12.8 miles depending on whether a more Easterly or Westerly course is selected. The cables would be buried at depths of five to eight feet. In the event trenching cannot occur in a particular area of sea bottom, or cannot occur at desired depths, rock bags or concrete "mattresses" may be used to secure the cables to the sea floor. The project also entails potentially dredging between 64,300 cubic yard to 105,400 cubic yards of sand from sand waves on the seafloor.

2. ADMINISTRATIVE SUMMARY

- 2.1 **DRI Referral:** Edgartown Conservation Commission
- 2.2 **DRI Trigger:** 5.1 (c) Development in or within 25 feet of the Ocean
- 2.3 **LUPC:** Slated, March 11, 2024

2.4 Full Commission: Slated, March 21, 2024

3. PLANNING CONCERNS

3.1 Environment / Habitat

- The project site or OECC is inhabited by finfish and shellfish (surf clams and young blue mussels).
- Underwater trenching at five to eight feet is expected to be done by jet plow but may be done by mechanical plow.
- Cables will be installed at the same time trenching happens with settling sediment essentially backfilling the trench to bury the cables.
- Underwater trenching is expected to kill some shellfish.
- Some temporary lower water column turbidity is expected due to trenching.
- A thin layer of sediment is expected in the vicinity of the trench zone.
- Recovery and recolonization of affected sea life in the trench zone is expected in 100 days to two to four years, depending on the composition of the seafloor.
- The project site contains areas of changing sandy topography described as sand waves, ripples, and “megaripples”.
- Sand waves can rise up to 12 feet off the seafloor.
- Dredging of sand waves, if necessary, is anticipated over a length of approximately two to three miles.
- Dredging will be timed closely to cable installation to ensure sand waves do not reconstitute and impede cable installation.
- Dredging spoils will be deposited on seafloor away from the project site.
- Gabion rock bags or concrete “mattresses” might be used to secure the cables to the seafloor in certain circumstances.
- If used, Gabion rock bags or concrete “mattresses” would be deployed over 4.5 miles to 8.6 miles of cable.
- The Applicant notes, the connector cables for Vineyard Wind 1, which were installed in the same area off Chappaquiddick (see DRI 688), have not required Gabion rock bags or concrete “mattresses”.
- The project site is outside of core habitat for the critically endangered North Atlantic right whale.
- Eel grass, an important habitat, has not been detected within the project site.
- The export cables have an inner lead sheath that potentially could, over a long period of time, enter the environment should cable decay occur.
- The Applicant states the cables are expected to have a lifespan of 30 or more years after which they could be “retired in place or removed”.
- Bonded decommissioning of the cables, part and parcel with the overall project, is governed by BOEM.

3.2 Energy

- The export cables will deliver electricity from a 1,200-megawatt offshore wind farm.
- The electricity generated from the wind farm will not go to the Vineyard, but simply transit past it to Cape Cod where it will enter the electrical grid.

3.3 Climate Resilience

- Per the Applicant, “[t]he project will deliver clean, renewable, cost-competitive energy to the New England electrical grid while reducing carbon dioxide equivalent (CO_{2e}) emissions by approximately 2.35 million tons per year, the equivalent of taking 460,000 cars off the road...”

3.4 Traffic & transportation

- The Applicant has insulated mariners from potential liability for anchoring damage other inadvertent damage.
- Per the Applicant: “In the event a fisherman or mariner inadvertently damaged a project cable or other project component, the loss would be covered by the project’s insurance. However, this scenario is very unlikely. Engineering design of the Project included a cable burial risk assessment, which determined the target burial depth for offshore export cables would be 5 to 8 feet (1.5 to 2.5 m) below the stable seafloor, more than twice the burial depth the assessment determined was required to protect the cables from fishing and mariner activities, including anchor strikes. The cable burial risk assessment is based on qualitative and quantitative assessments including an assessment of the local geological environment and risks from local fishing, seabed mobility, seabed contacts, shipping activity and others. The burial depth is sufficient to protect against vessels active in the area, based on a risk return period of 1 in 100,000 years.”
- During cable installation, 0.3 mile safety zones will be established by the U.S. Coast Guard.
- “During cable installation,” the Applicant states, “safety zones will surround the cable installation as it proceeds along the OECC, and will not preclude along the rest of the OECC at any given point in time.”

3.5 Economic Development

- The Applicant has committed \$8 million, via Vineyard Power, “to support Martha’s Vineyard’s community goal of achieving 100% of its electricity from renewable sources and elimination of fossil fuels, including funding a full-time position of Energy Transition Fellow.”

3.6 Archaeology

- The Applicant has provided evidence of underwater archeological permitting which indicates the project will avoid underwater archaeological resources. It should be noted, permitting seems to be for Park City Wind as opposed to Commonwealth Wind, which is under the same corporate umbrella.

3.7 Health and Safety

- In the event one of the cables was somehow pierced or otherwise damaged through to the conductive interior, a circuit breaker would trigger.
- Per the Applicant, “[T]he offshore export cables will be encased in a grounded metal armor jacket, and each of the three individual conductors will also be grounded through its metallic shielding. The export cables will have multiple levels of fault protection. Should any of the cables ever be compromised or damaged resulting in a fault, the cable relay protection scheme would immediately open circuit breakers on both ends, isolating the cable. Isolating the cable in this fashion immediately cuts off electricity flowing through the cable. The cables are continuously monitored and have both a primary and backup relay protection scheme, which both ensures protection of the equipment and maintains safety.

Because the relay system is redundant, in the event the main relay system did not operate, the backup system would instantaneously activate.”

3.8 Municipal Services and Taxpayers

- In response to questions about whether the Town of Edgartown would bear any responsibility in cleaning up a cable abandoned in place decades in the future, especially if it were to wash ashore following a catastrophic event, the Applicant stated in part:
- “In brief, as is typical of utility-grade generation and transmission infrastructure, the Project’s equipment is expected to have a physical life expectancy of 30 or more years. The offshore cables could be retired in place or removed, subject to discussions with the appropriate regulatory agencies on the preferred approach to minimize environmental impacts. Current Bureau of Energy Management (BOEM) regulations require the removal of decommissioned submarine cables, unless otherwise requested by the cable owner, and subsequently approved by BOEM. Regardless of the specific approach, the Proponent will comply with then applicable regulations and then-relevant decommissioning procedures. The Proponent will provide financial assurance for the project, including coverage for decommissioning, in accordance with the terms and conditions required by BOEM regulation or otherwise with approval from BOEM. If decommissioning in place is approved, it is anticipated that the approval will contain conditions relating to ongoing maintenance or inspection obligations and address other contingencies and future liability.”
- The Applicant later added: “BOEM’s regulations at 30 CFR § 285 Subpart I require the project to submit a decommissioning plan application and BOEM requires a decommissioning bond or other financial assurance to cover the cost of facility removal. While conceptual decommissioning plans are reviewed by BOEM as part of their COP approval process, anticipated to be completed this summer, a more detailed decommissioning plan application will be required two years before the expiration of the project’s lease. BOEM’s review of a final decommissioning plan application will include consultation with municipal, state, and federal management agencies. Additionally, it is anticipated that the NEW2 Connector’s Chapter 91 License will include conditions that allow MassDEP to revoke the license and order the removal of the cables under certain circumstances, including damage to the environment. The removal would be at the expense of the Licensee or its successors. Upon the nullification, expiration, or revocation of a Chapter license, the default expectation is that all structures are removed unless otherwise authorized by MassDEP.”