



June 6, 2018

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs
Attn. MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Andrew Gottlieb
Executive Director

BOARD OF DIRECTORS

Margo L. Fenn
President

Charles Sumner
Vice President

Robert Summersgill
Treasurer

Maureen O'Shea
Clerk

Robert Ciolek

Michael Corrigan

DeeDee Holt

Thomas Huettner

Pat Hughes

Cheryl Lubin

Elysse Magnotto-Cleary

Blue Magruder

Eliza McClennen

Donald Palladino

Kris Ramsay

Taryn Wilson

RE: Vineyard Wind Connector Draft Environmental Impact Report, EEA # 15787

Dear Secretary Beaton:

The Association to Preserve Cape Cod (APCC), the Cape's leading nonprofit environmental advocacy and education organization, has reviewed the Draft Environmental Impact Report (DEIR) for the Vineyard Wind Connector and offers the following comments.

There is a critical need to replace our nation's dependence of fossil fuels with clean, renewable energy from a variety of technology sources, and modern advancements in deep water offshore wind technology have positioned it to be one of the most viable sources for large-scale green energy production. Accordingly, Massachusetts has committed to producing 1,600 MW of offshore wind energy within the next decade, as called for in 2016's *An Act to Promote Energy Diversity*. Vineyard Wind is proposing to develop an offshore wind project capable of generating 800 MW of power, which, if built, would be the state's first major step toward achieving its goal of 1,600 MW of offshore wind energy production. It would also help Massachusetts move closer to the greenhouse gas emissions reduction target requirements established in the *Global Warming Solutions Act* of 2008.

The 800 MW of clean energy produced by Vineyard Wind would have the capability of offsetting carbon dioxide (CO₂) emissions from the ISO New England system by approximately 1,680,000 tons per year (tpy), according to the DEIR. Nitrogen oxides (NO_x) emissions would decrease by approximately 1,080 tons annually, and sulfur dioxide (SO₂) emissions would decrease by approximately 880 tpy. Over the expected 30-year lifespan of the project, CO₂ emissions would be offset by 50,426,619 tons, NO_x by 32,309 tons, and SO₂ by 26,396 tons. APCC considers these projected carbon emissions reductions to be a significant benefit for the environment of Cape Cod and Massachusetts.

In reviewing the DEIR, APCC has identified issue areas where additional information

and/or study is recommended.

Landing Sites

The applicant has identified two potential landing sites for the export cables: New Hampshire Ave. in Yarmouth via Lewis Bay as the Preferred Route, and Covell's Beach in Barnstable as the Noticed Alternative. The applicant has eliminated from consideration a third landing site at Great Island in Yarmouth due to impacts to sensitive habitats and coastal resource areas. APCC agrees with the decision to eliminate the Great Island landing site from consideration.

The Covell's Beach site would require horizontal directional drilling (HDD) of the cable at landfall to avoid impacts to coastal beach and mapped rare species habitat. The applicant has stated a preference for using open trench installation at the New Hampshire Ave. site, although acknowledges that HDD is an option. APCC notes that concern has been expressed by some residents in the general area of the Yarmouth landing site about disruption of the neighborhood and impacts to Lewis Bay, and we raise the question of whether HDD would be a less-intrusive method at this location. APCC recommends that the applicant provide a comparison of the HDD and open trench methods and their respective benefits and detriments in Lewis Bay and on the approach to the New Hampshire Ave. landing site. The applicant should explain whether there is a compelling reason to use open trench installation instead of HDD, beyond assumed cost savings.

Based on information provided by the applicant in the Environmental Notification Form (ENF) and DEIR, and barring any additional forthcoming information to the contrary, APCC views both the Preferred Route landing site and the Noticed Alternative landing site as potentially viable locations. Once onshore, there appear to be fewer potential impacts to protected natural resource lands along the Preferred Route, as discussed below.

Onshore Cable Routes

The Preferred Route for the underground onshore cable does not require crossings of any public open space, conservation lands or Article 97 lands. Two variant routes of the Preferred Route would require underground crossing of Article 97 land; one of those routes would also cross a parcel of land subject to a conservation restriction held by the town of Barnstable. However, part of the route along the Article 97 lands has been identified as the future route of a MassDOT bike path and the land held in conservation restriction does allow for an existing utility easement.

The Noticed Alternative route would cross Article 97 land at the Covell's Beach landfall up to where the cable would reach Craigville Beach Road. It would also cross two parcels of land owned by the town of Barnstable as protected open space. In addition, four protected parcels subject to an Amended and Restated Development Agreement with the Cape Cod Commission would be crossed, these parcels having an existing utility easement.

As a general principle, APCC has held the position that projects should avoid any impact to, or use of, Article 97 lands or lands under conservation restriction. If the Vineyard Wind applicant

does seek use of Article 97 lands for this project, appropriate compensation equal or greater than the lost value of the land should be required. If the applicant determines that the route utilizing the proposed MassDOT bike path is the preferred route, APCC recommends that confirmation should first be obtained from MassDOT that a bike path will definitely be constructed and that it will use the route identified by the applicant. APCC also recommends that the applicant explain whether the width of area to be cleared and disturbed for the underground cable route is similar to what would be required for construction of the bike path, or if the cable burial would require more extensive clearing than the bike path.

The DEIR states that “dewatering” of the duct bank trench, in which the onshore underground cables will be held, will be necessary “in areas where groundwater is encountered, where soils are saturated, or at times when the trench is affected by storm water.” The applicant should identify if this procedure will be necessary in any Zone I or Zone II areas, and if so, what extra precautions will be undertaken to ensure that all construction activity is conducted with appropriate safeguards so that groundwater is not adversely impacted.

The DEIR also states that equipment staging areas will be set up at intervals along the underground land route at the extension of Higgins Crowell Road where a MassDOT bike path parking lot is proposed, and at two locations within the utility ROW located west of the MassDOT rail ROW and east of Spyglass Hill Road. APCC believes these locations may be within Zone II areas; therefore, extra precautions should be undertaken to ensure that equipment handling and storage does not adversely impact groundwater. The precautionary practices and spill containment plan described in the DEIR appear to adequately address reasonable concerns about potential wetland and groundwater contamination, and APCC looks for further confirmation of the protective measures in the Final EIR.

In locations along the onshore underground route where cable splicing is necessary, the DEIR states that the excavated area will be larger—approximately 30 feet wide by 50 feet long—to accommodate a pre-cast concrete vault. The applicant should determine where wider excavation areas are to be located and whether they will be sited in locations that require extensive clearing of trees and other vegetation, particularly if they are located on Article 97 lands, lands under a conservation restriction, wetland buffer zones or mapped habitat areas.

Water Supply Areas

The Preferred Route passes through approximately 3.15 miles of Zone I or Zone II protection areas, while the Noticed Alternative passes through approximately 3.99 miles of Zone II protection areas. Both routes pass through sections of the Barnstable Protection Overlay District. The Preferred Route crosses through a Zone I area along a short stretch of abandoned road segment that is still paved and that is proposed for future use as part of a bike path. In the context of this Zone I location, the DEIR states that the use of fertilizers, pesticides, herbicides or other vegetation control will not be necessary, presumably due to its routing within an existing roadway. APCC calls on the applicant to make a formal commitment to not use herbicides or other pesticides or fertilizers along the entire length of its underground cable route.

Substation

The applicant has identified a property in Independence Park as the site of its substation. This location is within the Zone II for a public water supply and is also within the Barnstable Protection Overlay District. As described in the DEIR, the applicant's plan for 110 percent containment capacity to capture any hazardous materials spills at the substation appears to address most of the questions regarding protection of groundwater resources that were raised by APCC in our written comments on the project's ENF.

The applicant has provided extensive detail on the spill prevention and containment plan proposed for the onshore cable route during the construction phase of the project, and APCC recommends similar information be provided concerning the applicant's spill response plan at the substation for the operational phase of the project.

According to the DEIR, the substation's electrical equipment will include "hermetically sealed gas-insulated switchgear, which is designed to be gas-tight and sealed for the life of the equipment." APCC seeks clarification about whether this equipment contains hazardous materials and if so, whether it is also included within the 110 percent leak containment plan described in the DEIR.

Stormwater

The proposed stormwater management system for the project substation site is described as incorporating low impact development (LID) strategies that include grass swales, sediment forebays, a deep sump catch basin and an infiltration basin that will result in peak runoff rates that are no greater than what is generated from the existing undeveloped site. Since the substation is located with a Zone II, it is critically important that an approved stormwater management plan include full containment and control of stormwater around the transformers and any equipment that contains dielectric fluid or other liquids or substances that could potentially contaminate groundwater if allowed to escape.

On May 10, 2018, the U.S. EPA Region 1 announced that the 2016 MS4 permit will become effective on July 1, 2018. The towns of Yarmouth and Barnstable are communities that are subject to MS4 requirements. The site of the proposed substation in Barnstable is located in an industrial zoned area and the Preferred Route landing site in Yarmouth is in a developed area on Lewis Bay, a Category 5 impaired water.

The applicant should review the requirements of the 2016 MS4 permit and evaluate whether it applies to any of the landside project components (e.g., does any runoff from the site reach wetlands or water bodies or discharge onto town roads that are subject to MS4 requirements). If so, then the relevant MS4 requirements (e.g., illicit discharge detection and elimination, construction site runoff control, post-construction stormwater management, good housekeeping and pollution prevention, and additional requirements for impaired waters) should be described and addressed. The Final EIR should describe how the project's stormwater management plan addresses MS4 requirements, and whether additional measures are needed. The impaired status of Lewis Bay should also be described within the stormwater management

plan, including the pollutant(s) causing the impairment and what will be done to address the pollutants in runoff from the project landing site.

Rare Species

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) has identified four species of migratory birds and two species of invertebrates—all state-listed—that are known to occur within the vicinity of the project. The applicant has indicated that it is consulting with NHESP to ensure that impacts to rare species are avoided or minimized. APCC looks to future additional information about the avoidance of impacts to rare species.

Avian Species

The primary potential impact to birds from the project is mortality or injury from collision with the wind turbine generators. The Massachusetts Office of Coastal Zone Management states that the Vineyard Wind lease area is habitat for fulmars, northern gannet, razorbill, several species of shearwater and Wilson's storm petrel. NHESP has also expressed concern about the potential for impacts to rare and endangered shorebirds, including roseate tern, common tern and least tern in relation to their spring and fall migrations, as well as impacts to their nesting and foraging habitats from the construction and operation of the project. NHESP's concerns also include potential construction impacts to sand lance, which are a primary food source for tern species. At the request of NHESP, Vineyard Wind is conducting additional field studies of avian species, which will supplement the data collected by the Massachusetts Clean Energy Center and U.S. Bureau of Ocean Energy Management (BOEM). APCC supports the need for a vigorous study of potential avian impacts. APCC also supports NHESP's recommendation for a portion of the project mitigation fee to go towards benefitting roseate terns and other bird species impacted by the project.

Additionally, the Installation Corridor Boundary shown in Figure 9-4, which shows the potential variance area width in the eventual placement of the offshore underground cable, appears to overlap onto Egg Island in Lewis Bay. This low-lying spit of sand is habitat that is utilized by several shorebird species. The applicant should clarify that routing of the cable will not impact Egg Island or associated shorebird habitat.

Marine Mammal Species

As described in the DEIR, twenty-six species of marine mammals are known to occur within the project's proposed Offshore Export Cable Corridors and adjacent waters, including whales, porpoises, dolphins and seals. Four of the large whale species identified, North Atlantic right whale, fin whale, sei whale and sperm whale, are listed as endangered, with the North Atlantic right whale being a critically endangered species. The DEIR does specify that the Offshore Export Cable Corridors avoid mapped whale core habitat, including North Atlantic right whale core habitat. Nevertheless, the DEIR states that for all phases of the project, impacts to marine mammals may result from noise and increases in boat traffic. This would include noise in the federal lease area from project construction and the possibility of boat vessel collision. The applicant is consulting with BOEM, the National Marine Fisheries Service and others on appropriate mitigation. APCC recommends that this mitigation information, or at least a greater

discussion of proposed mitigation in addition to what is briefly discussed in the DEIR, be included in the Final EIR.

Safety and exclusion zones, which will be established and monitored to ensure that marine mammals do not enter the zones during project activity, are proposed for areas surrounding offshore cable installation in order to mitigate the impacts of noise on marine mammals as well as fish and sea turtles. APCC would like to see more information regarding scientific determinations about the minimum safe distance that will protect vulnerable marine species from noise impacts. For example, what is the minimum safe distance for whales, and how does that compare to the exclusion zones proposed for this project?

Other Marine Resources

Although the proposed cable routing corridors for both the Preferred New Hampshire Ave. landfall site and the Noticed Alternative Covell's Beach landfall site avoid mapped eelgrass habitat, there is still some uncertainty about potential eelgrass bed locations relative to the proposed offshore cable routing. The DEIR states that additional field investigations will be conducted in 2018, and APCC looks for more definitive information in the Final EIR.

Impacts to shellfish and shellfish habitat are expected to be greatest within the six-foot-wide disturbed sediment area resulting from the jet-plow or other cable installation equipment. The DEIR states that the applicant is in consultation with Yarmouth and Barnstable shellfish constables, the Division of Marine Fisheries and commercial shellfishermen. APCC looks for more information in the Final EIR about proposed mitigation, including mitigation for shellfish habitat impacts in Lewis Bay.

Lewis Bay

With regard to Lewis Bay, the Division of Marine Fisheries' (DMF) written comments in response to the project's ENF identify the many resources and sensitive habitats present in Lewis Bay, including mapped habitats for horseshoe crab spawning, eelgrass, soft shell clam, American oyster, bay scallop, quahog and winter flounder. DMF therefore recommends a narrow time of year restriction on project construction activity within Lewis Bay and also suggests that the applicant consider use of HDD instead of open trenching in order to minimize natural resource impacts. APCC reiterates our previously-stated recommendation that the applicant be required to include further analysis of both cable laying options in the FEIR, and in light of DMF's recommendations, explain why HDD should not be the preferred method used.

In APCC's comment letter on the ENF, we said that, "Given that Lewis Bay has a TMDL for nitrogen, the DEIR should discuss measures to avoid, minimize or mitigate potential water quality impacts and impacts on aquatic species due to resuspension of sediments and remobilization of nitrogen during offshore trenching and horizontal direct drilling. Documentation of the use of these measures using video monitoring or other means should be provided."

The applicant's response stated that, "The submarine cable installation will result in temporarily elevated turbidity resuspension of nitrogen-rich sediments in the affected portion of Lewis Bay. Sediment dispersion is discussed in Section 4.3.5."

Our review of Section 4.3.5 of the DEIR indicates that the potential impacts of sediment dispersion were described based on modeling of sediment dispersion and areas expected to be affected. However, Section 4.3.5 does not mention nitrogen. Since the applicant's response in the ENF indicates that there will be resuspension of nitrogen-rich sediments, albeit temporarily, this response seems to be deficient.

To reiterate our concern about nitrogen being released during resuspension of sediments, the Massachusetts Estuaries Project (MEP) study of Lewis Bay (2008) stated that the Lewis Bay embayment system is at risk of eutrophication (over enrichment) from enhanced nitrogen loads primarily from wastewater but also other sources. Nitrogen enrichment is the primary cause of impairment of eelgrass, according to the MEP report.

APCC recommends that in the Final EIR, the applicant should provide a better description of the potential for nitrogen remobilization in Lewis Bay and describe measures to avoid, minimize or mitigate potential water quality impacts due to remobilized nitrogen. This should be addressed through subsequent permitting (i.e., water quality certification, DRI, Army Corps of Engineers, etc.).

Project Decommissioning

The DEIR provides some information on the decommissioning of the project after its anticipated 30-year lifespan, including possible removal of offshore and onshore cables and some associated equipment. APCC recommends that the FEIR discuss the costs of decommissioning and the commitment of funds by Vineyard Wind for the decommissioning process.

APCC thanks the Secretary for this opportunity to provide comments.

Sincerely,



Andrew Gottlieb
Executive Director