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CAPE COD COMMISSION

Date: April 26, 2019
Project: Vineyard Wind Connector (CCC FILE NO. 17026)
Project Applicant: Vineyard Wind LLC
From: Jonathon Idman, Chief Regulatory Officer
Re: DRI REVIEW
Draft Decision- Hearing Officer Report And Recommendations

The attached draft decision constitutes my report and recommendations for consideration by the Cape Cod Commission in its Development of Regional Impact review of the above-referenced Project. I served as Commission staff Hearing Officer at the April 9, 2019 hearing on the Project, and have continued the hearing on the Project to the Commission's meeting of May 2, 2019.

The draft decision is based on oral and written public testimony received; oral and written direct testimony from the Applicant and Town of Barnstable; Commission staff analysis; and my own observations as Hearing Officer.

I have filed a copy of the attached draft decision with the Commission c/o Commission Clerk Gail Hanley; have provided a copy to the Applicant and to the Town of Barnstable; and have had posted a copy on the Cape Cod Commission's website for public viewing.

Draft Decision received by Commission Clerk this 26th day of April, 2019

Gail Hanley

Gail Hanley, Commission Clerk

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CAPE COD COMMISSION

DEVELOPMENT OF REGIONAL IMPACT DECISION

Project:	Vineyard Wind Connector (Cape Cod Commission File No. 17026)
Project Applicant:	Vineyard Wind LLC ("Applicant")
Location:	Town of Barnstable, with offshore export cable landing at Covell's Beach and onshore export cable terminus at substation in Independence Park, Hyannis
Date:	May ____, 2019

SUMMARY

Vineyard Wind LLC proposes a Vineyard Wind Connector Project which is intended to connect to and serve the proposed Vineyard Wind offshore wind energy generation project located in federal jurisdictional waters. The elements of the Vineyard Wind Connector Project located within Barnstable County are subject to Development of Regional Impact review by the Cape Cod Commission, including approximately 6.9 miles of the offshore export cables, the cable landfall site, the onshore ductbank and associated onshore underground cables located primarily within existing public roadway layouts, the proposed onshore substation, and the grid interconnection.

The Cape Cod Commission hereby grants Development of Regional Impact approval, with Conditions, for the proposed project described herein pursuant to Sections 12 and 13 of the Cape Cod Commission Act. This decision is rendered pursuant to a vote of the Cape Cod Commission on _____ , 2019.

FINDINGS/STATEMENT OF REASONS

The Cape Cod Commission ("Commission") finds and determines as follows:

Commission Jurisdiction

1. The Vineyard Wind offshore wind energy generation project's wind turbine array ("WTA") will be sited in federal waters within the federally designated Wind Energy Area ("WEA"), which is under the jurisdiction of the Department of the Interior's Bureau of Ocean Energy Management ("BOEM") and situated approximately 27 miles from the nearest land within Barnstable County.
2. The electricity generated by the WTA will be transported to the existing land-based transmission system via two new 220 kV three-core AC offshore export cables that will travel north from the WTA in federal waters, cross into state waters, pass into federal waters in a portion of Nantucket Sound, and then re-enter state waters and make landfall on Cape Cod.
3. The Vineyard Wind Connector Project is defined as the Massachusetts-jurisdictional elements of the Vineyard Wind offshore wind energy generation project.

4. The elements of the Vineyard Wind Connector Project located within Barnstable County ("Project") are subject to Development of Regional Impact ("DRI") review by the Commission, which Project is intended to connect to and serve the proposed Vineyard Wind offshore wind energy generation project.

5. For purposes of the Commission's jurisdiction and DRI review, the Project includes: the approximately 6.9 miles of offshore export cables located within Barnstable County waters; the cable landfall site; the onshore ductbank and associated onshore underground cables located within the existing public roadway layouts; the proposed onshore substation; and the grid interconnection. The onshore cable route is located primarily within the Town of Barnstable ("Town"). The Project is further depicted and described in the plan set submitted in the DRI application materials.

Procedural Background

6. The Project is a mandatory DRI pursuant to Sections 2 and 3 of the Commission's *Chapter A: Enabling Regulations Governing Review of Developments of Regional Impact ("Enabling Regulations")* (revised April 19, 2018).

7. The Secretary of the Office of Energy and Environmental Affairs issued a Certificate on the Project's Final Environmental Impact Report under the Massachusetts Environmental Policy Act ("MEPA") on 2/1/19 (EEA No. 15787).

8. The Project is also subject to the jurisdiction of the Commonwealth's Energy Facilities Siting Board ("EFSB"). The Commission is conducting DRI review of the Project pursuant to Section 7 of the *Enabling Regulations*, including without limitation Subsection 7(d) therein.

9. The Applicant submitted a DRI application to the Commission on 2/11/19 and supplemental application materials in March and April 2019. A list of these application materials and other documents the Commission considered in its review is attached hereto and incorporated herein as Exhibit A.

10. The DRI hearing period was opened for procedural purposes by a Commission staff Hearing Officer on 3/18/19 at the Commission offices in Barnstable, MA. The first substantive public hearing on the DRI was held on 4/9/19 at 5:00 p.m. in the East Wing Conference Room of the Barnstable County Complex (3195 Main Street, Barnstable, MA) by Commission staff Hearing Officer. Commission staff prepared a memo, dated 4/5/19, for the 4/9/19 public hearing.

11. The public hearing was continued to 5/2/19 at 3:00 p.m. in the East Wing Conference Room, where, among other things, the Commission staff Hearing Officer gave a report of the 4/9/19 hearing to the full Commission and presented a draft DRI decision for the project to the full Commission containing the recommendations of the Hearing Officer and Commission staff. In advance of the 5/2/19, the Hearing Officer filed a copy of said draft DRI decision with the Commission in care of the Commission Clerk, and provided a copy to the Applicant and Town of Barnstable. At its 5/2/19 meeting, the Commission held a continued hearing on the Project and... A list of public comments received during the hearing period is attached as Exhibit C.

12. The entire Vineyard Wind offshore wind energy generation project, including the offshore wind turbine generators, inter-array cables, electrical service platforms, and offshore cables in federal waters, has been undergoing National Environmental Policy Act ("NEPA") review by BOEM. The Record of Decision on the Final Environmental Impact Statement is expected in July 2019.

13. The Applicant filed executed Power Purchase Agreements with the Massachusetts Department of Public Utilities ("DPU") on 7/31/18, which were approved by DPU in April 2019.

14. The EFSB Final Decision on the Vineyard Wind offshore wind energy generation project is anticipated in May 2019 (see consolidated docket number EFSB 17-05/DPU 18-18/18-19).

15. The Applicant provided the Commission a copy of its recorded Notice of Option to Lease for the substation site, evidencing the Applicant's legal interest in the property (see Deed Book 31050 Page 189).

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16. The Applicant and the Town of Barnstable entered into a Host Community Agreement ("HCA") dated 10/3/18, the Town's participation authorized by vote and resolution of the Town Council in October 2018. The Applicant included the HCA as Attachment C of the DRI application materials submitted 2/11/19.

17. The Barnstable Town Council voted and resolved unanimously to grant Vineyard Wind an easement across Covell's Beach, a residents-only public beach owned and managed by the Town, and the adjacent Town-owned parking lot on 10/18/18.

18. The Project will require an Order of Conditions from the Barnstable Conservation Commission, specifically, for those activities proposed at Covell's Beach.

19. The Applicant is seeking individual and comprehensive zoning determinations and exemptions from DPU pursuant to MGL Ch. 40A, Sec. 3 for the entirety of the Project, including the onshore export cable and the substation. This zoning-related petition has been consolidated with the Applicant's two other EFSB petitions made pursuant to MGL Ch. 164, Sec. 69J, 72 relating to construction, operation, and maintenance of the Project. Under the HCA, the Town has agreed to publicly support such zoning request.

20. The Project will also require administrative, construction-type permits, licenses, and approvals from the Town, including road opening permits.

21. The Applicant maintains that it will coordinate construction schedules and construction plans with the requisite Town departments, in accordance with existing Town policies, practices, and procedures.

22. These filings, local permits, and approvals; grants of location; coordination; and the like are also addressed in the HCA. Pursuant to the HCA, the Town has agreed to support the Applicant in these efforts.

23. The Town Council passed resolutions in January 2019 to establish a Water Stabilization Fund, pursuant to MGL Ch. 40, Sec. 5B, and to direct all future proceeds under the HCA to said Water Stabilization Fund.

DRI Review Standards

24. Section 13(d) of the Cape Cod Commission Act and section 7(c)(viii) of the Commission's *Enabling Regulations* contains the standards to be met for DRI approval, which include consistency with the Cape Cod Commission Act, the Cape Cod Regional Policy Plan ("RPP"), Districts of Critical Planning Concern (as applicable), Municipal Development Bylaws, and any Commission certified Local Comprehensive Plan (as applicable). The Commission must also find that the probable benefit from the proposed DRI is greater than the probable detriment.

25. DRI review of the Project is subject to the 2019 RPP, which was the version of the RPP in effect at the time of the first substantive public hearing on the DRI.

Cape Cod Regional Policy Plan

Applicable and Material Goals and Objectives

26. Section 9 of the 2019 RPP provides that for purposes of DRI review, consistency with the applicable and material goals and objectives of the RPP constitutes consistency with the RPP. The following goals and objectives from the 2019 RPP are those applicable and material to the Project and subject to RPP consistency review: Water Resources goal and objectives WR1 and WR4; Ocean Resources goal and objectives OR1, OR2, and OR3; Wetland Resources goal and objective WT1; Wildlife and Plant Habitat goal and objectives WP1, WP3, and WP5; Open Space goal and objectives OS1, OS2, and OS3; Community Design goal and objectives CD1, CD2, and CD3; Coastal Resiliency goal and objectives CR1, CR2, and CR3; Capital Facilities and Infrastructure goal and objectives CF1 and CF2; Transportation goal and objective TR1; Energy goal and objectives EN1 and EN2; Cultural Heritage goal and objectives CH2 and CH3; and Economy goal and objectives EC2 and EC4. A summary of the applicable and material RPP Goals and Objectives is included as Exhibit B attached hereto and incorporated herein.

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Water Resources

27. The Water Resources goal of the RPP is to maintain a sustainable supply of high-quality untreated drinking water and protect, preserve, or restore the ecological integrity of Cape Cod's fresh and marine surface water resources. The Water Resources objectives that are applicable and material to the Project are: to protect and preserve groundwater quality (WR1) and to manage and treat stormwater to protect and preserve water quality (WR4).

28. As it is articulated in the RPP, Objectives WR2, WR3, and WR5 are not applicable and material to the Project. The Project does not involve or impact freshwater recharge areas or marine water recharge areas. The Applicant does not propose any groundwater withdrawals or discharges.

29. One of the ways the RPP sets out to achieve objective WR1 is through a limitation on the volume of materials that have the potential to contaminate drinking water. Potential threats to drinking water include storage, transport, and use of fuel and other materials during construction and coolants and lubricants associated with the proposed substation.

30. The proposed substation site is located within a Wellhead Protection Area (Zone II) and approximately 4.2 miles of the onshore cable route extends through Wellhead Protection Areas (Zone II).

31. For purposes of the Water Resources goal and applicable objectives, the dielectric fluid proposed for use at the substation, in the volumes proposed, constitutes a "hazardous material." The Applicant estimates that the quantity of dielectric fluid will be on the order of 60,000 gallons or more; the actual volume will be contingent on final design.

32. In the HCA agreement, the Applicant acknowledged that dielectric fluid, if not properly managed, could pose a risk to groundwater and public water supplies, and the parties agreed that a release of dielectric fluid and other hazardous materials from the Applicant's substation must be avoided.

33. The Project is not possible without the use of dielectric fluid at the proposed substation due to the specific equipment required (and the dielectric fluid required for such equipment) at the substation and the substation's role in the Project's intended purpose. While the proposed substation must include equipment containing dielectric fluid, which has properties similar to mineral oil, extensive protective measures will be implemented to eliminate and minimize any associated risks to groundwater; and substantial financial support has been committed through the HCA to fund water supply development and protection efforts in the Town.

34. The Applicant proposes to provide 110% containment for all substation equipment containing dielectric fluid under the HCA and, at the Town of Barnstable's request, the Applicant has committed to adding additional containment volume, adjusting the 110% containment volume up to accommodate a simultaneous 100-year, 24-hour rainfall event, which is an alternative method proffered by the Applicant to meet Objective WR1 relative to protecting and preserving groundwater quality. Some specific details of dielectric fluid containment are under discussion between the Town of Barnstable and the Applicant and subject to final design. The substation design will include a common drain system that routes each individual containment area, after passing through an oil inhibition device, to an oil/water separator before draining to the infiltration basin.

35. The Applicant will work closely with Town officials in developing an emergency response plan, which will include spill response.

36. In response to input from the Town, the Applicant explored the possibility of using biodegradable dielectric fluid at the substation site, with biodegradable dielectric fluid in this context meaning fluid with more biodegradable properties than traditional dielectric fluids. The Applicant did not guarantee that this technology would be available or practical. The Town subsequently requested that the Applicant not use biodegradable dielectric fluid and that accordingly, the Applicant has agreed not to use it.

37. Based on the DRI application materials submitted, management of stormwater at the proposed substation is consistent with the Massachusetts Stormwater Policy. With adequate pretreatment, the stormwater management system is anticipated to provide the necessary water quality treatment and recharge volumes.

38. Gravel will be placed in the areas within the substation site not occupied by Project equipment and associated development, thereby reducing the amount of impervious surface. No new impervious area will be created along the onshore ductbank route.

39. The onshore export cable will be installed by open trenching, primarily within public roadway layouts and utility easements along the preferred route between Covell's Beach and the proposed substation.

40. The onshore export cables, as well as the offshore export cables, will not contain any fluids or other materials that might constitute "hazardous materials" within the meaning of the Water Resources goal and applicable objectives.

41. The Applicant proposes to refuel light vehicles at commercial fueling stations. Heavy equipment will be refueled in place, outside of wetland and other buffer areas.

42. The Host Community Agreement between the Applicant and the Town of Barnstable will support public water supply development and protection projects through capital expenditures under the Water Stabilization Fund.

43. The Commission recognizes the collaborative effort between the Town and the Applicant to address water quality concerns through the HCA due to the substation site's location in an Industrial Activity Center that is situated within a Wellhead Protection Area. The Town has expressed its support for the Project through the HCA, related Town resolutions, and comments submitted by the Town during the Commission's DRI public hearing process.

44. The Project is consistent with the applicable and material Water Resources goal and objectives of the RPP, subject to the Conditions herein. The substation site and associated containment system has been and will continue to be designed to ensure that the presence and use of dielectric fluid does not pose a threat to groundwater. The Project does not generate wastewater and is not otherwise a significant source of nitrogen loading. The Town plans to direct all future funds the Applicant will be contributing through the HCA to a Water Stabilization Fund for public water supply development and protection efforts. The offshore and onshore export cables do not contain any liquids, oils, or other substances that could potentially leak and cause detrimental impacts to water quality. The Applicant is developing plans for emergency spill response, refueling, and sediment and erosion control to ensure water quality protection. *(WR1)* Based on the information provided, with adequate pretreatment the stormwater management system will protect and preserve water quality. *(WR4)*

Ocean Resources

45. The Ocean Resources goal of the RPP is to protect, preserve, or restore the quality and natural values and functions of ocean resources. The Ocean Resources objectives that are applicable and material to the Project are to: locate development away from sensitive resource areas and habitats (OR1); preserve and protect ocean habitat and the species it supports (OR2); and protect significant human use areas and vistas (OR3).

46. While the Project proposes to install two offshore export cables that will result in alterations to the seafloor within Cape Cod's ocean environment, the Applicant has made many route, design, and construction choices and adjustments through the MEPA and other State review processes that should serve to minimize impacts to ocean resources.

47. The offshore export cables are not located within designated prohibited areas for ocean species or exclusionary areas as identified in the Cape Cod Ocean Management Plan.

48. Portions of the offshore export cables are located within rare species habitat areas.

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49. Installation of the cables by Horizontal Directional Drill ("HDD") from the cable landfall site out to 1,000 feet from shore (with installation to a depth of approximately 30 feet at the Covell's Beach tideline) will ensure that impacts to piping plovers and other shorebirds will be avoided within the nearshore area. The HDD cable installation as proposed will also avoid other significant habitat areas, including eelgrass beds and areas of hard or complex bottom.

50. The DRI Application states that from the ocean floor exit point of the HDD-installed section of cable, the remaining offshore export cable is anticipated to be installed primarily by jetplowing. However, the Applicant indicates that mechanical plow, mechanical trenching, or trailing suction hopper dredge may be used in some areas. The Applicant also identifies other methodologies – shallow-water cable installation tractor, pre-trenching, boulder relocation, precision installation, and jetting – that may be used in specialized situations. If and to the extent necessary, boulders will be relocated from the offshore export cable route and placed in another location within the installation corridor. Dense areas of boulders will be avoided. Preparatory/advance activities (i.e., a grapnel run to provide clearance for installation and sand wave dredging) will take place prior to cable installation.

51. The installation of the offshore export cable for the Vineyard Wind offshore wind energy generation project requires permitting and oversight at the state and federal level, including review under MEPA for the portions of the offshore export cable within state jurisdiction.

52. The 810- to 1,000-meter width of the surveyed Offshore Export Cable Corridor, within which the two offshore export cables will be laid, provides flexibility to avoid and minimize impacts.

53. The DRI Application l states that the primary and preferred method of offshore cable installation is jetplow which, when conditions allow for its utilization, will minimize impacts to the seafloor to a narrow band of installation. Displaced sediment will fall back to fill the trench and temporarily suspended finer sediments will settle back to the seafloor at depths which are relatively harmless to shellfish and other benthic organisms, and within the natural variability of sediment movement within Nantucket Sound.

54. Given the proposed burial of the majority of the offshore export cables to a target depth of approximately 5-8 feet below the ocean floor, the post-construction impacts from cable installation on ocean resources and pre-existing human activities are anticipated to be temporary and minor.

55. The Applicant is considering cable installation tools with greater achievable burial depths, which would further minimize sand wave dredging but might require anchoring along the entire cable route. The spacing of each anchor set and the number of anchoring points has been reduced from that originally proposed.

56. In cases where burial is not possible due to subsurface conditions, the offshore export cable will be laid on the ocean floor and covered by rock or concrete mattresses. The Applicant plans to select the final route to avoid these methods to the maximum extent practicable within the screened Offshore Export Cable Corridor.

57. The Applicant is working with the Massachusetts Division of Marine Fisheries ("DMF") and Natural Heritage and Endangered Species Program ("NHESP") to identify best management practices ("BMPs") and time-of-year ("TOY") restrictions to avoid, minimize, or mitigate potential impacts to marine mammals, fish, shellfish, sea duck, and shorebird habitat.

58. Whales, including the endangered North Atlantic Right Whales, have a very limited presence within the Project area and no core habitat for North Atlantic Right Whales is present in the Project area. The Applicant entered into an agreement with certain Non-Governmental Organizations ("NGOs") on 1/22/19 to implement additional mitigation measures to protect the North Atlantic Right Whales, and potentially other marine mammals, during construction and operation of the Vineyard Wind offshore wind energy project overall. Mitigation strategies will include engaging environmental monitors and on-board sensor devices to alert boat operators to the presence of whales and/or sea turtles, so they can take appropriate avoidance action. The NGO agreement includes a funding commitment directed towards advancing understanding of

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the effects of wind development on resources and mitigation measure effectiveness. The Applicant maintains that it will commit $3 million to a Marine Mammal Innovation Fund (aka "Wind and Whales Fund") to support development and demonstration of innovative methods and technologies to enhance protections for marine mammals as the Massachusetts and U.S. offshore wind industry continues to grow.

59. Noise impacts to marine mammals and fish are not anticipated from the offshore export cable installation portion of the Project.

60. According to the Applicant, during installation the cable-laying ship will move at a speed of less than 1 nm/hr, greatly reducing the threat of whale/sea turtle interaction or strike, and the service boats will move to and from shore at speeds of less than 10 nm/hr during certain time periods and in certain locations in accordance with the 1/22/19 agreement it entered into with certain NGOs.

61. The cable laying vessel and guard vessels will follow a pre-identified route at a speed of less than 1 nm/hr during installation and will maintain a moving safety exclusion zone of approximately 0.6-mile radius (unless modified in consultation with, or at the direction of, the United States Coast Guard). There will be no long-term navigational impacts due to the buried offshore export cables within the Project area.

62. The Applicant is working with the University of Massachusetts Dartmouth School for Marine Science and Technology to develop a framework for, and finalize the scope and duration of, pre- and post-construction fisheries monitoring, in consultation with state agencies and local stakeholders.

63. Given the temporary nature of the impacts associated with installing the offshore export cables and the limited permanent footprint of the Project on the ocean floor should cable protection be required within Barnstable County waters, the Project is not anticipated to interfere substantially with human use areas post-construction.

64. Taking into consideration Project impacts in conjunction with other ocean-based development in this area, together with design considerations, construction practices, and mitigation actions proposed by the Applicant, it seems unlikely that the cumulative impacts of development will degrade ocean habitats and human use areas within the Project area post-construction.

65. The Project is consistent with the applicable and material Ocean Resources goal and objectives of the RPP, subject to the Conditions herein. The Applicant has made many route, design, and construction choices that should serve to minimize impacts to ocean resources. Through offshore cable route selection, cable installation methods, TOY restrictions, and the use of HDD from the Covell's Beach landfall site out to 1,000 feet from shore, the Project locates development away from sensitive resource areas and habitats and preserves and protects ocean habitat and the species it supports. *(OR1, OR2)* The combination of HDD at the Covell's Beach landfall site and the installation of the transition vaults underground beneath the Covell's Beach parking lot, scenic vistas towards Covell's Beach from both land and water, and recreational access to the beach, will be preserved. The temporary nature of offshore export cable installation impacts and the limited permanent footprint due to any necessary cable protection serves to protect offshore human use areas. *(OR3)*

Wetland Resources

66. The Wetland Resources goal of the RPP is to protect, preserve, or restore the quality and natural values and functions of inland and coastal wetlands and their buffers. The Wetland Resources objective that is applicable and material to the Project is to: protect wetlands and their buffers from vegetation and grade changes (WT1).

67. As it is articulated in the RPP, Objectives WT2, WT3, and WT4 are not applicable and material to the Project. The Project will not result in any changes in hydrology or any increased stormwater discharges to wetlands. The Project does not involve restoration of degraded wetland resource areas.

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68. The only elements of the Project that will impact wetland resources are the cable installation in Land Under the Ocean, a temporary impact to Coastal Dune at the corner of the existing parking lot during cable installation, and a temporary impact to Land Subject to Coastal Storm Flowage ("LSCSF") that is within existing parking lot and roadway, also during cable installation.

69. There are no impacts to wetland resource areas within the land-based portion of the Project other than a temporary impact to a small area of Coastal Dune and LSCSF within existing parking lot and roadway in the vicinity of the Covell's Beach landfall, which will be restored to their existing condition after construction; the cable connection at the Covell's Beach landfall site will occur within a previously disturbed parking lot and will proceed primarily within previously disturbed roadway layouts or utility easements.

70. Construction activity in Coastal Dune and LSCSF will require review and permitting by the Town's Conservation Commission.

71. The RPP allows for utility installation in wetlands where the Applicant can show that there is a public benefit, there is no feasible alternative to alteration, and the impacts from the alteration are minimized and mitigated.

72. As a water-dependent project providing a connection between offshore wind turbine generators and the land-based electrical grid, there is no feasible alternative to the cable location within Land Under the Ocean and the affected areas of Coastal Dune and LSCSF.

73. The Applicant has taken steps to select a route, design installation and construction, and accommodate needed TOY restrictions to protect ocean resources, such that the impacts from the installation will be minimized and mitigated.

74. The Project will facilitate several public benefits, including reduced energy costs, improved electricity reliability, and generation of a large quantity of renewable energy.

75. The Project is consistent with the applicable and material Wetland Resources goal and objective of the RPP. There will be no permanent impacts to wetland resource areas within the land-based portion of the Project and there will no temporary, construction-related impacts to wetland resource areas within the land-based portion of the Project other than the temporary impacts within a small area described in the Findings above, which will be restored to existing condition after construction. *(WT1)*

Wildlife and Plant Habitat

76. The Wildlife and Plant Habitat goal of the RPP is to protect, preserve, or restore wildlife and plant habitat to maintain the region's natural diversity. The Wildlife and Plant Habitat objectives that are applicable and material to the Project are to: maintain existing plant and wildlife populations and species diversity (WP1); protect and preserve rare species habitat, vernal pools, 350-foot buffers to vernal pools (WP3); and promote best management practices to protect wildlife and plant habitat from the adverse impacts of development (WP5).

77. As it is articulated in the RPP, Objectives WP2 and WP4 are not applicable and material to the Project. There are no previously degraded habitats on the substation site and the Project does not involve the restoration of degraded habitats. No invasive species have been identified at the substation site.

78. The Applicant proposes substantial clearing of a 6.3-acre mostly wooded and partially developed site in Independence Park to build a new substation.

79. The site is not mapped for rare species habitat, BioMap2 Core Habitat, or Critical Natural Landscape.

80. According to the Natural Resource Inventory of the substation site submitted by the Applicant, the area is naturally vegetated (typical pitch pine/oak mix with shrub understory), the site does not appear to support any unusual or sensitive habitats, and there are no vernal pools on the site.

81. No invasive species were identified in the Applicant's assessment of the substation site.

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82. The substation site is reasonably well-chosen within an Industrial Zoning District and Industrial Activity Center Placetype, in close proximity to other existing energy infrastructure. The substation site is isolated from other undeveloped land, with a commercial building to the west, the Barnstable Switching Station to the north, an existing utility easement and multi-family residential development to the east, and Independence Drive to the south.

83. To the south of the substation site (and separated by roads and other development) is a large, contiguous network of mostly undeveloped land mapped as rare species habitat and BioMap2 Core Habitat, identified collectively as the Hyannis Coastal Plain Ponds Complex, which is not anticipated to be impacted by the substation or onshore export cable installation.

84. The Applicant has minimized fragmentation of habitats and maximized the protection of large unfragmented areas through substation site selection.

85. The Applicant proposes that construction fencing and erosion control barriers will be installed at the substation site before initiation of construction activities, which should serve to protect wildlife and plant habitat located outside the construction envelope.

86. The onshore export cable route is located within existing paved roadways or established utility easements; provided BMPs are employed during construction, adverse impacts to wildlife and plant habitat are not anticipated.

87. As described in further detail in the Ocean Resources section above, while portions of the offshore export cables are located within rare species habitat areas, installation of the cables by HDD from the existing Covell's Beach parking lot out to 1,000 feet from shore (with installation to a depth of approximately 30 feet at the Covell's Beach tideline) will avoid impacts to piping plovers and other shorebirds within the nearshore area to the maximum extent feasible. The HDD cable installation as proposed at the landfall site will also avoid other nearshore significant habitat areas, including eelgrass beds and areas of hard or complex bottom.

88. The Project is consistent with the applicable and material Wildlife and Plant Habitat Resources goal and objectives of the RPP, subject to the Conditions outlined herein. The Applicant has minimized fragmentation of habitats and maximized the protection of large unfragmented areas through site selection. *(WP1)* As there are no vernal pools on the substation site and the site is not mapped for rare species, BioMap2Core Habitat, or Critical Natural Landscape, there will be no impacts on these resource areas. *(WP3)* The Applicant has indicated that construction tasks at the substation site will start with installation of construction fencing and erosion control barriers, which should serve to protect wildlife and plant habitat from the adverse impacts of development. *(WP5)*

Open Space

89. The Open Space goal of the RPP is to conserve, preserve, or enhance a network of open space that contributes to the region's natural and community resources and systems. The Open Space objectives that are applicable and material to the Project are to: protect and preserve natural, cultural, and recreational resources (OS1); maintain or increase the connectivity of open space (OS2); and protect or provide open space appropriate to context (OS3).

90. Installation of the cables by HDD from the cable landfall site in the existing Covell's Beach parking lot out to 1,000 feet from shore (with installation to a depth of approximately 30 feet at the Covell's Beach tideline) will avoid impacts to undisturbed land, protect piping plovers and other shorebirds, and avoid other significant habitat areas, including eelgrass beds and areas of hard or complex bottom, within the coastal and nearshore area.

91. The proposed onshore export cable route in the Covell's Beach area could constitute an Article 97 conversion and require corresponding mitigation and approval from the Commonwealth to allow for such conversion.

92. At the Covell's Beach landfall site, the physical connection between the offshore and onshore export cables will be made in one or more underground concrete transition vaults within the

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existing paved Covell's Beach parking lot. The only stated permanent visible change will be the installation of manhole covers to access the transition vaults.

93. Covell's Beach is a Town beach that is part of the regional matrix of shorefront recreational opportunities. There will be no post-construction impacts on recreational access, scenic views, and community character at the Covell's Beach landfall site.

94. The ductbanks for the onshore export cables will be buried underground within existing roadway layouts or utility easements.

95. The substation site is located within the Industrial Activity Center Placetype and within an area zoned Industrial by the Town.

96. The Open Space Technical Bulletin states that "development in Industrial Activity Centers is strongly encouraged."

97. The substation site is located within a Wellhead Protection Area (Zone II).

98. According to the Natural Resource Inventory of the substation site submitted by the Applicant, the area is naturally vegetated (typical pitch pine/oak mix with shrub understory), the site does not appear to support any unusual or sensitive habitats, and there are no wetlands or vernal pools on the site.

99. The substation is appropriately sited outside of more sensitive habitat areas to the south.

100. The substation site is surrounded by existing development and infrastructure. It is bordered to the north by the Barnstable Switching Station, to the west by the former Cape Cod Times building (currently an office supply distribution center), to the south by Independence Drive, and to the east by an existing approximately 150- to 200-foot-wide electric transmission corridor (Eversource ROW #344) with 115 kV overhead lines on H-frame and single pole support structures.

101. The 6.3-acre substation site which will be leased by the Applicant is mostly wooded but also includes some existing developed area, including existing parking areas, an access drive, and a small building.

102. As described in the Open Space Technical Bulletin, the Area of Development Impact for a project is the total undeveloped area anticipated to be impacted by the proposed development.

103. Some of the previously developed land on the substation site, including .14 acres of gravel or stone roadways and .28 acres of other altered areas, will be redeveloped for substation use.

104. The footprint of the existing onsite buildings will be reduced by .02 acres and the amount of parking and other paved areas will be reduced by .43 acres.

105. Substation construction involves development of approximately 5.9 acres of the 6.3-acre substation lease site.

106. A 50-foot vegetated buffer will be retained along the southern substation site border, and a 30-foot vegetated buffer will be retained on the eastern border of the substation site to the greatest extent practicable (where the utility easement layout allows).

107. The Open Space Technical Bulletin states that within Industrial Activity Centers, "if high-value natural resource areas are impacted, open space onsite, or open space of equal or higher ecological value offsite, should be permanently conserved. A cash contribution may also be used to meet the open space requirement."

108. The Open Space Technical Bulletin states that areas of high natural resource value include Wellhead Protection Areas.

109. The Open Space Technical Bulletin identifies the protection of current and potential future drinking water supply sites as a priority.

110. The Open Space Technical Bulletin requires open space mitigation in a ratio of 1:1 in Industrial Activity Centers to meet Objective OS3.

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111. Through the HCA with the Town of Barnstable, the Applicant has committed to a cash contribution to the Town in the amount of $16 million.

112. In January 2019, the Town indicated its intention to direct future HCA funds towards planning, investigation, and new wellhead development for public drinking water supplies and any potential associated land/open space restrictions for wellhead protection purposes.

113. The Applicant suggests in the DRI application submitted on 2/11/19 that the HCA addresses and satisfies the open space requirement for the Project, noting that the amount far exceeds the open space cash contribution that would be required to mitigate substation construction impacts per the Open Space Technical Bulletin.

114. The Applicant has committed to fund reconstruction of the bathhouse and to repave the public beach parking lot at Covell's Beach, a Town beach that is part of the regional matrix of shorefront recreational opportunities.

115. The Project is consistent with the applicable and material Open Space goal and objectives Os1, OS2, and OS3 of the RPP, subject to the Conditions contained herein. The Project locates development away from high value resource areas and unfragmented blocks of open space; sites the substation close to existing development, roadways, and infrastructure (including in close proximity to the Barnstable Switching Station); preserves public access to resource-dependent recreational activities by using HDD at the Covell's Beach landfall site, burying all Project elements underground, and repaving the parking area; and enhances recreational amenities by reconstructing the bathhouse at Covell's Beach. *(OS1)* The Project sites the substation in an Industrial Activity Center away from significant wildlife habitat areas and does not fragment large, previously undisturbed blocks of unfragmented open space. *(OS2)*. To meet objective OS3, the Applicant has committed to provide through land restriction or payment in lieu 5.9 acres of high value open space, which is at the mitigation ratio of 1:1 in Industrial Activity Centers set out in the Open Space Technical Bulletin. *(OS3)*

Community Design

116. The Community Design goal of the RPP is to protect and enhance the unique character of the region's built and natural environment based on the local context. The Community Design objectives that are applicable and material to the Project are to: promote context sensitive building and site design (CD1); minimize the amount of newly disturbed land and impervious surfaces (CD2); and avoid adverse visual impacts from infrastructure to scenic resources (CD3).

117. At the Covell's Beach landfall site, the physical connection between the offshore and onshore export cables will be made in one or more underground concrete transition vaults. The only stated permanent visible change will be the installation of manhole covers in the existing Covell's Beach parking lot to access the transition vaults.

118. The onshore export cables will run underground through existing, developed road layouts or utility easements.

119. The proposed substation will be located on the eastern portion of a 13.1-acre parcel. The approximately 6.3-acre substation site, which will be leased by the Applicant, is mostly wooded but also includes some existing developed area inclusive of existing parking areas, an access drive, and a small building. Most of the substation site will require clearing. Some of the previously developed land, including the access drive, will be reused.

120. The substation is located within an Industrial Activity Center, near other existing similar infrastructure. The substation site is bordered to the north by the Barnstable Switching Station, to the west by the former Cape Cod Times building (currently a distribution center for an office supply delivery company), to the south by Independence Drive, and to the east by an existing approximately 150- to 200-foot-wide electric transmission corridor (Eversource ROW #344) with 115 kV overhead lines on H-frame and single pole support structures.

121. The substation site is located several hundred feet from the nearest existing multi-family residential development to the northeast. Multi-family residential developments are not

permitted uses in certain of the Industrial zoning districts in the Independence Park area. Some multi-family residential developments have been permitted in this area through the provisions of MGL Ch. 40B, Sec. 21-23 including the development northeast of the utility easement.

122. The substation equipment/infrastructure will be adequately buffered or screened from view from all directions by existing development, vegetated buffers, landscaping, and/or a visual and acoustic barrier. In particular, the substation is proposed to be well-screened to the south by a 50-foot vegetated buffer, limiting visual impacts on the roadway. The substation is also proposed to be screened to the east to the greatest extent practicable by retaining existing vegetation (where the utility easement layout allows), with the goal of retaining a minimum 30-foot vegetated buffer along much of this boundary.

123. The Applicant has proposed to incorporate a visual and acoustic barrier in the northeast corner of the Project site. The substation visual and acoustic barrier will screen substation equipment from view from the multi-use residential property to the northeast of the site. This is in contrast to the existing Barnstable Switching Station, which does not incorporate visual or noise mitigation features, and abuts multi-family residential development to the east.

124. Along the northeast corner of the existing substation site, which is the corner nearest the existing multi-family residential development to the east, the substation visual and acoustic barrier abuts the utility easement; due to space constraints in this location, only limited vegetative screening of the substation visual and acoustic barrier is proposed.

125. Based on Commission staff consultation with the Applicant, the Applicant explained that alternative site layouts that would increase the distance between the substation visual and acoustic barrier and the utility easement in the northeast corner, providing space for additional vegetative screening, are not feasible due to site constraints and substation equipment requirements. The Applicant also explained that it is not feasible to shift the Project closer to Independence Drive, as the gravel area on the south side of the site is part of the stormwater management system.

126. The proposed substation is sited away from existing scenic resources and the design, inclusive of the vegetated buffer, avoids adverse visual impacts to the Hyannis Coastal Plain Ponds Complex natural area to the south of Independence Drive.

127. The Project is consistent with the applicable and material Community Design goal and objectives of the RPP, subject to the Conditions outlined herein. The Project promotes context-sensitive building and site design at the substation site through siting within an Industrial Activity Center and site design that provides a visual buffer to substation equipment through vegetated buffers, a visual barrier, and landscaping. The acoustic barriers proposed will minimize potential noise impacts on nearby multi-family residential developments. *(CD1)* The amount of land disturbed is necessary for substation construction; impervious surfaces will be minimized to the greatest extent possible and vegetated buffers will be retained. *(CD2)* There will be no post-construction visual impacts from the onshore export cables, as they will be buried underground beneath existing roadways and utility easements. The HDD cable installation at Covell's Beach and the burial of the transition vaults beneath the existing parking lot will also avoid adverse visual impacts from infrastructure to scenic resources, namely Covell's Beach and the surrounding Cape Cod shoreline. *(CD3)*

Coastal Resiliency

128. The Coastal Resiliency goal of the RPP is to prevent or minimize human suffering and loss of life and property or environmental damage resulting from storms, flooding, erosion, and relative sea level rise. The Coastal Resiliency objectives that are applicable and material to the Project are to: minimize development in the floodplain (CR1); plan for sea level rise, erosion, and floods (CR2); and reduce vulnerability of built environment to coastal hazards (CR3).

129. The Applicant has selected Covell's Beach in Barnstable as the preferred offshore export cable landfall site. This preferred landfall site and associated preferred offshore and onshore cable

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routes were supported by Commission staff in a MEPA comment letter on the Project's Supplemental Draft Environmental Impact Report dated 10/4/18.

130. The Project makes landfall within coastal resource areas, including the VE zone. The offshore export cable is a water-dependent project and as such may be allowed within the VE zone because there is no feasible alternative to its siting and associated development impacts are minimized and mitigated in order to protect the beneficial function of the coastal resource.

131. The Applicant proposes to use HDD at the landfall site at Covell's Beach, with the offshore export cable rising to a subsurface vault within the existing parking lot for transition to onshore underground cables to the substation. Disturbance within the V zone will be limited to subsurface cable conduit installation in proximity to the existing parking lot.

132. The Applicant has accounted for potential sea level rise by reviewing historic shoreline data which indicates that shorelines in this area have accreted approximately 150 ft since 1846, indicating that threats from sea level rise are not imminent at the landfall site.

133. Project elements within the floodplain will be buried in vaults and ductbanks designed to withstand water infiltration and flood exposure.

134. The Project will not impact the ability of coastal resources to migrate and to provide their natural beneficial functions.

135. Additional development within the floodplain (A zone) will occur within existing roadway layouts and will not expand existing development footprints.

136. The Project is consistent with the applicable and material Coastal Resiliency goal and objectives of the RPP. The water-dependent elements of the Project are designed to minimize development within the floodplain and impacts to coastal resources to the maximum extent practicable through the proposed use of HDD at the landfall site at Covell's Beach, with the offshore export cable rising to a subsurface vault within the existing parking lot for transition to onshore underground cables to the substation. *(CR1)* Project elements within the floodplain will be buried in vaults and ductbanks designed to withstand water infiltration and flood exposure and reducing the vulnerability of the built environment to coastal hazards. *(CR2 and CR3)*

Capital Facilities and Infrastructure

137. The Capital Facilities and Infrastructure goal of the RPP is to guide the development of capital facilities and infrastructure necessary to meet the region's needs while protecting regional resources. The Capital Facilities and Infrastructure objectives that are applicable and material to the Project are to: ensure capital facilities and infrastructure promote long-term sustainability and resiliency (CF1) and coordinate the siting of capital facilities and infrastructure to enhance the efficient provision of services and facilities that respond to the needs of the region (CF2).

138. Each three-core offshore export cable will transition to three separate single-core cables at the landfall site at Covell's Beach. Each onshore cable will be installed within its own separate conduit contained within a single concrete ductbank that will be sited underground and extend from the landfall site to the proposed substation site within existing public roadway layouts.

139. The substation is sited within an Industrial Activity Center Placetype on a parcel contiguous to the existing Barnstable Switching Station; at the substation, voltage will step down from 220 kV to 115 kV in preparation for interconnecting with the existing transmission grid at the Barnstable Switching Station.

140. No transmission system upgrades are required to accommodate the interconnection for an 800-MW project at the Barnstable Switching Station.

141. The Barnstable Switching Station presently has two spare bays available for breakers needed to interconnect the Project, significantly reducing the amount of work required by the transmission owner for the proposed interconnection.

142. No bus extensions or substation reconfigurations will be necessary for the proposed interconnection, only installation of the 115kV breakers, associated switches, and relaying.

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143. The Project is consistent with the applicable and material Capital Facilities and Infrastructure goal and objectives of the RPP. The Project under review by the Commission provides a conduit for renewable energy generated by the Vineyard Wind offshore wind energy project to the New England energy grid, at a point in the transmission infrastructure which will improve long-term energy sustainability and resiliency for Cape Cod. *(CF1)* The siting of the Project in an Industrial Activity Center on a parcel contiguous to the existing Barnstable Switching Station with surplus capacity supports the efficient provision of services and facilities that respond to the needs of the region. The Project also uses resources and infrastructure efficiently in terms of the use of the Covell's Beach parking lot as a base/staging area for the HDD operation and the selection of an onshore route that follows existing roadway layouts. Additionally, there are opportunities for the Applicant and Town to coordinate infrastructure efforts under the HCA. *(CF2)*

Transportation

144. The Transportation goal of the RPP is to provide and promote a safe, reliable, and multi-modal transportation system. The Transportation objective that is applicable and material to the Project is to: improve safety and eliminate hazards for all users of Cape Cod's transportation system (TR1).

145. As it is articulated in the RPP, Objectives TR2 and TR3 are not applicable and material to the Project as they are designed for developments that will have some permanent effect on the regional traffic network and the Project, once constructed, will have no permanent effect on the transportation network per the Findings above.

146. The information the Applicant provided in the DRI Application relative to transportation issues, particularly in section 4.7.1 therein, constitutes an appropriate Transportation Impact Assessment for the Project. The Project does not create any appreciable amount of new vehicle trips, new curb-cuts or new vehicle drives. There will only be sporadic trips to and from the substation under its regular operation and no new vehicular access to the substation site is proposed. Given the nature of the substation and the security required for the substation, pedestrian connections and public access is neither proposed to be provided nor appropriate at the substation site.

147. The total length of the onshore cable route is 5.3 miles, all or substantially all of which is within existing roadway or utility layout.

148. Temporary construction impacts associated with the offshore cable installation will be mitigated through the use of Traffic Management Plans ("TMPs") developed by the Applicant and approved by state and local officials for the affected roadways. TMPs will be finalized through coordination with the Town of Barnstable and MassDOT to avoid and minimize temporary traffic-related impacts and to avoid any regional impacts during construction.

149. The proposed lane and road closures will be managed by police details and other appropriate traffic management measures to maintain traffic flow.

150. The Applicant expects ductbank construction to proceed at an average speed of approximately 100 – 200 feet of installation completed per day.

151. The Project does not involve or generate permanent motor vehicle trips; once constructed, it will have no permanent effect on the regional traffic network.

152. The Project is consistent with the applicable and material Transportation goal and objectives of the RPP, subject to the Conditions contained herein. Temporary construction impacts associated with the Project will be mitigated through the use of TMPs. The onshore export cable will be buried underground. The Project will not have a permanent, long-term effect on the regional transportation network. *(TR1)*

Energy

153. The Energy goal of the RPP is to provide an adequate, reliable, and diverse supply of energy to serve the communities and economies of Cape Cod. The Energy objectives that are applicable

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and material to the Project are to: support renewable energy development that is context-sensitive (EN1) and increase resiliency of energy generation and delivery (EN2).

154. As it is articulated in the RPP, Objective EN3 is not applicable and material to the Project because the project does not propose any building construction.

155. The Vineyard Wind offshore wind energy generation project is proposed in response to Section 83C of Chapter 169 of the Acts of 2008, as amended by Chapter 188 of the Acts of 2016, An Act to Promote Energy Diversity.

156. The Vineyard Wind offshore wind energy project will assist the Commonwealth in meeting its Global Warming Solutions Act ("GWSA") goals.

157. The Applicant maintains that the Vineyard Wind offshore wind energy generation project will enhance the reliability and diversity of the regional and statewide energy supply while reducing greenhouse gas emissions from the regional power generation grid.

158. Cape Cod is at the outer edge of the regional transmission system. The Applicant states that while recent significant investments in transmission reliability have strengthened the electricity supply to Cape Cod, the Project will further improve reliability by feeding power into the center of the Cape Cod transmission system.

159. The Applicant has sufficiently described how the project incorporates renewable energy generation and supports Massachusetts' approach to a Clean Energy future.

160. The Vineyard Wind offshore wind energy project will increase the reliability of the electric grid, including during times of peak demand. Summer offshore wind patterns will allow the wind turbine generators to produce substantial power during summer afternoons/early evenings, typical peak power demand periods on the Cape and the Islands.

161. The Vineyard Wind offshore wind energy project is intended to reduce reliance on fossil fuel generation and help to alleviate price volatility, reducing winter electricity price spikes. It will enhance energy supply diversity and as a wind project won't be affected by possible cold weather gas limitations or supply shortages, helping to promote price stability and energy security.

162. The Applicant suggests that the Vineyard Wind offshore wind energy project could reduce reliance on the need for the gas- and oil-burning Canal Units 1 and 2 to run, especially during winter peak events when winds are high and conditions ideal for wind energy generation.

163. Siting of the onshore and offshore elements of the Vineyard Wind offshore wind energy project within Commission jurisdiction, as proposed by the Applicant, is context-sensitive, inclusive of substation siting, cable route and landfall site selection, and cable-laying methods, as described in the Findings in the sections above.

164. The Vineyard Wind offshore wind energy generation project, inclusive of the elements located in federal waters, provides an opportunity to significantly advance the Commonwealth's renewable energy and greenhouse gas emissions reduction goals and policies. The Project facilitates the overall energy generation project.

165. The Vineyard Wind offshore wind energy project is anticipated to deliver up to 800 MW of wind energy, providing renewable energy for an estimated 400,000 homes and businesses, thereby increasing the resiliency of energy generation and delivery.

166. Because of its interconnect location and generation type, adding an additional 800 MW of offshore wind generation to the current MA power generation portfolio will provide fuel diversification and enhance the overall reliability of power generation and transmission in the region and in particular in southeast MA, which has seen, and will continue to see, substantial changes in generation capacity due to significant recent and planned generation unit retirements, mitigating future costs for ensuring reliable service for MA customers.

167. The Applicant states that the wind turbine generators selected for the Vineyard Wind offshore wind energy generation project will be among the most efficient currently available for offshore use, reducing ISO NE CO2 emissions by approximately 1,630,000 tons/year, nitrogen oxides

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emissions across the New England grid by 1,050 tons/year, and SO2 emissions by approximately 860 tons/year.

168. The Applicant states that according to DOER, the Vineyard Wind offshore wind energy generation project will reduce costs for electricity customers in Massachusetts, with total net benefits at approximately $1.4 billion over the life of the contract.

169. The Applicant proposes to establish a Resiliency and Affordability Fund in the amount of $1 million annually for 15 years ($15 million total) to support low-income rate-payers through energy security funding and to fund distributed energy storage projects that will enhance the resiliency of coastal communities. The Applicant maintains that the details of fund distribution are still being developed.

170. There is a level of infrastructure resilience associated with the Project due to placing the onshore export cables and associated infrastructure underground.

171. The Project is consistent with the applicable and material Energy goal and objectives of the RPP, subject to the Conditions contained herein. The Project supports renewable energy development by providing a connection between the Vineyard Wind offshore renewable energy generation project's WTA and the New England power grid. The offshore and onshore cable routes were significantly refined through the MEPA permitting process to avoid or minimize resource impacts to the extent practicable while still meeting the needs of the Project to connect the WTA to the on-land substation, which is appropriately sited in an Industrial Activity Center adjacent to the Barnstable Switching Station as per the Findings above. *(EN1)* The Project, which is a necessary component of the Vineyard Wind offshore renewable energy generation project, will increase the resiliency of energy generation and delivery as outlined in the Findings above. *(EN2)*

Cultural Heritage

172. The Cultural Heritage goal of the RPP is to protect and preserve the significant cultural, historic, and archeological values and resources of Cape Cod. The Cultural Heritage objectives that are applicable and material to the Project are to: protect and preserve archaeological resources and assets from alteration or relocation (CH2) and preserve and enhance public access and rights to and along the shore (CH3).

173. As it is articulated in the RPP, Objectives CH1 and CH4 are not applicable and material to the Project. The Project will not impact land-based historic resources or development patterns of villages and neighborhoods. The Project does not propose to permanently displace traditional agricultural or maritime uses.

174. The Project is subject to review by the Massachusetts Historical Commission ("MHC") and the Massachusetts Board of Underwater Archaeological Resources ("MBUAR").

175. The Applicant undertook a cultural resources investigation to identify historic and archaeological resources along the onshore export cable route and at the substation site, including properties listed or eligible for listing on the National Register of Historic Places, properties on the Massachusetts State Register of Historic Places, and properties included in the MHC Inventory of Historic and Archaeological Assets of the Commonwealth ("Inventory").

176. A reconnaissance-level survey final report was provided to MHC on 9/18/18. MHC also issued an archaeological permit for an intensive-level survey on 9/28/18 which was completed for the substation site on 11/2/18.

177. An archaeological sensitivity assessment performed by the Applicant's archaeology consultant determined that most of the upland route has been classified as having moderate sensitivity for archaeological resources along with isolated sections of low and high sensitivity. However, the roadbeds are thought to have less sensitivity due to disturbance.

178. The Applicant maintains that construction and operation of the Project will not affect historic buildings or structures. The onshore export cable route follows existing roadway layouts. The Applicant maintains that the public roadway has been modified by construction of the road, as

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well as by above- and below-grade utilities, such that it is unlikely that natural/undisturbed soils or potentially significant archaeological deposits would be located below or immediately adjacent to the roadway layout.

179. As the onshore export cables will be buried underground, they will have no visual impacts on historic properties. The Applicant also maintains that the proposed substation will not create an adverse visual impact on historic properties due to distance and visual buffering by vegetation/structures.

180. The Project will utilize HDD at Covell's Beach to avoid interference with public access to the shore.

181. The Applicant hired a consultant to provide archaeological support for high-resolution geophysical marine surveys and subsequent geotechnical activities along the Offshore Export Cable Corridor. As part of the cultural resource examination, archival and document research and field investigations were conducted including, but not limited to, review of historic documents, previous research reports, shipwreck inventories, historic maps, and MBUAR archival materials. According to the Applicant, the technical and environmental constraints that have factored into the delineation of the proposed Offshore Export Cable Corridor include avoiding or minimizing areas with mapped shipwrecks.

182. The Applicant maintains that the marine archaeology analysis is ongoing; when a draft archaeological report for the marine aspects of the Project are complete, it will be submitted to MBUAR for review and comment.

183. The Project is consistent with the applicable and material Cultural Heritage goal and objectives of the RPP, subject to the Conditions contained herein. Through completed and continuing investigations, surveys, and studies subject to review by MHC and MBUAR, the Applicant has selected and continues to refine a route for the onshore and offshore export cables that avoids or minimizes to the greatest extent practicable impacts to cultural resources. *(CH2)* The use of HDD at the Covell's Beach landfall site, the underground burial of the transition vaults and cables beneath the existing Covell's Beach parking lot, the provisions in the HCA regarding continued access to Covell's Beach and associated parking during construction, and the avoidance of any long-term visual or recreational impacts at Covell's Beach will preserve public access and rights to and along the shore. *(CH3)*

Economy

184. The Economy goal of the RPP is to promote a sustainable regional economy comprised of a broad range of businesses providing employment opportunities to a diverse workforce. The Economy objectives that are applicable and material to the Project are to: use resources and infrastructure efficiently (EC2) and to encourage industries that provide living wage jobs to a diverse workforce (EC4).

185. As it is articulated in the RPP, Objectives EC1, EC3, and EC5 are not applicable and material to the Project. The Project elements under Commission jurisdiction (cable and substation) are not the types of development associated with the direct production of goods and services that these objectives are designed to address.

186. The substation is within the Industrial Activity Center Placetype on a parcel contiguous to the Barnstable Switching Station. The substation site utilizes some existing developed area, is located near other existing similar infrastructure, and may reuse an existing building. The onshore cable route will follow previously disturbed existing roadways or utility easements.

187. As suggested in the HCA, the Town is working with the Applicant in an attempt to plan Town infrastructure projects to coincide with the timing of road work for Project cable ductbank installation, which would achieve economies of scale and efficiencies and assist in minimizing the extent of disruption to businesses and the public.

188. The Applicant maintains that the necessary work at the Covell's Beach landfall site will not be performed between Memorial Day and Labor Day, or as otherwise limited by the relevant

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permitting agencies and Town of Barnstable officials, and that access to a portion of the parking area will be maintained throughout construction for accessing the beach.

189. Onshore construction activities in roadways will take place off-season, or as otherwise permitted by the Town of Barnstable and/or MassDOT. Onshore construction at the proposed substation site will not be limited to the off-season.

190. The Applicant's $2 million Windward Workforce Fund will recruit, mentor, and train MA residents for careers in the offshore wind industry. The Applicant maintains that it will continue with its efforts to work cooperatively with southeastern Massachusetts educational institutions, including Cape Cod Community College and Mass Maritime Academy, relative to planning and implementation of the Windward Workforce initiative.

191. The Applicant maintains that it will provide living wage jobs to a diverse workforce through job training and employment opportunities in the emerging offshore wind energy industry.

192. The Applicant did not provide specific data on how many Project positions will likely be filled by Cape Cod residents.

193. A University of Massachusetts Dartmouth study determined that the Vineyard Wind offshore wind energy generation project will create approximately 3,600 Full-Time Equivalent (FTE) jobs in Massachusetts (FTE is a term used in the economic development profession to refer to a full-time employee for one year).

194. The Applicant maintains that the Applicant and all major contractors will actively seek MA residents as candidates for positions. The Applicant also maintains that construction of the Vineyard Wind offshore wind energy generation project intends to provide economic benefits to maritime industries and that the Project's contractors intends to utilize local companies for portions of the offshore and onshore work.

195. The Applicant proposes to establish a Resiliency and Affordability Fund ($1 million annually for 15 years) to support low-income rate-payers through energy security funding, promote clean energy projects on Cape Cod and the Islands, and fund distributed energy storage projects that will enhance the resiliency of coastal communities. The Applicant maintains that the details of fund distribution are still being developed.

196. The Applicant proposed to establish an Offshore Wind Industry Energy Accelerator Fund ($10 million) to support the state's goals to rebuild and update ports and harbors, encourage and attract additional investments in local infrastructure, and create jobs in critical coastal communities.

197. The HCA provides significant fiscal and economic benefits to the Town of Barnstable. In addition to taxes, the HCA will provide the Town with $16 million. In January 2019, the Town dedicated future HCA payments to a Water Stabilization Fund that will support water resources protection and new water wells within the Town.

198. The Applicant has coordinated with the fishing community to design the Vineyard Wind offshore wind energy generation project to help address concerns raised. The Applicant will implement a Fisheries Communications Plan to avoid and minimize disruptions to commercial and recreational fishing activities, in collaboration with port authorities; federal, state, and local authorities; and other key stakeholders, including recreational fishermen and boaters, commercial fishermen, harbormasters, marine pilots, and other port operators.

199. The Applicant is working with the University of Massachusetts Dartmouth School for Marine Science and Technology; DMF, NOAA, BOEM, and other state and federal agencies; and regional stakeholders on developing the framework, duration, and scope of pre-and post-construction fisheries monitoring. Monitoring should include impacts to commercial and recreational fishing and species migration patterns within the Vineyard Wind offshore wind energy generation project area overall.

200. The Project is consistent with the applicable and material Economy goal and objectives of the RPP, subject to the Conditions outlined herein. The Project uses resources and infrastructure

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efficiently in terms of substation siting, onshore cable route, and coordination with the Town through the HCA. *(EC2)* The Project encourages industries that provide living wage jobs to a diverse workforce through job training and employment opportunities. *(EC4)*

Waste Management

201. As it is articulated in the RPP, the Waste Management Goal and Objectives WM1 and WM2 are not applicable and material to the Project as the Project is not anticipated to generate hazardous waste or significant amounts of solid waste.

Housing

202. As it is articulated in the RPP, the Housing Goal and Objectives HO1, HO2, HO3, and HO4 are not applicable and material to the Project as the Project does not propose housing development.

LCP/DCPC Implementing Regulations/Municipal Development Bylaws

203. The Town's Local Comprehensive Plan ("LCP") was originally certified by the Commission in 1998. The Town's LCP update (Barnstable Comprehensive Plan) was adopted by the Town in 2010. The updated LCP received preliminary certification by the Commission on 9/27/10 but has not received final certification and so is not currently considered "certified" by the Commission pursuant to the Commission's LCP regulations, and thus a determination of consistency with such LCP is not required for or technically applicable to the Project during DRI review. Notwithstanding, according to the Town of Barnstable Planning and Development Department *(see below)*, the Project is consistent with the Town's adopted LCP.

204. In a letter dated April 9, 2019 and submitted during the public hearing for the record, the Town of Barnstable Planning and Development Department provided comments relative to the Project's consistency with the Town's adopted LCP and municipal development ordinances. The letter states that the Project broadly supports renewable energy, economic growth and diversification, and infrastructure investment consistent with the Town's LCP. It also states that the obligations and commitments set forth in the HCA, when implemented, "will sufficiently address any Town concerns regarding environmental risks, the Town's public drinking water supplies, and minimization of impacts to the environment and to the public."

205. The Applicant also maintains that the Project is consistent with said LCP in that the LCP is intended to work for positive economic change, promote sustainable development, encourage new economic sectors, and build and maintain appropriate infrastructure to support the LCP.

206. The offshore export cables will be installed within Land Under the Ocean and, as such, will be subject to the jurisdiction of the Barnstable Conservation Commission. The Project work proposed at and immediately adjacent to the Covell's Beach Landfall Site (within LSCSF and Coastal Dune) is the only onshore portion of the Project located within Conservation Commission/wetlands protection jurisdiction. The Project is water-dependent and does not require any special relief from the Conservation Commission. No other Project work is located within Conservation Commission/wetlands protection jurisdiction.

207. To the extent zoning applies to certain portions of the Project, the Project is broadly consistent with zoning uses: the landfall site is a water dependent use, located in a shorefront area, and the substation is located in an Industrial District (proposed containment and stormwater management addresses Groundwater Protection Overlay zoning issues).

208. The Project is located in areas subject to the following DCPC Implementing Regulations: Craigville Beach zoning district (Zoning Code Section 240-131); "Growth Management" (Zoning Code Section 240-110 et seq); and the Town's Fertilizer Management Ordinance (Barnstable Code Chapter 78). The latter two regulations do not apply because the Project, respectively, is not a residential project and does not propose or involve turf fertilization.

209. The Applicant has petitioned, and the Town has agreed to support, EFSB/DPU jurisdiction under GL Ch. 40A Section 3 over determinations about zoning applicability or exemptions relative to the Project, including those concerning the Craigville Beach DCPC zoning code

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provisions/implementing regulations. It is anticipated that the EFSB will grant the requisite zoning exemptions requested by the Applicant, as part of its consolidated docket and ruling on the Project expected in May 2019.

210. Elizabeth Jenkins, Director of the Town of Barnstable Planning and Development Department, submitted a letter on behalf of the Town dated April 9, 2019, which speaks broadly to the Town's support for the Project and the Project's consistency with the Barnstable LCP and municipal development by-laws.

Benefits/Detriments

211. The following are probable benefits of the Project:

- Provides an opportunity to significantly advance the Commonwealth's renewable energy and greenhouse gas emissions reduction goals and policies;
- Will deliver up to 800 MW of wind-generated power to the New England energy grid, providing clean energy for an estimated 400,000 homes and businesses;
- Provides fuel diversification and enhances the overall reliability of power generation and transmission in the region and in particular in southeast MA, which has seen, and will continue to see, substantial changes in generation capacity due to significant recent and planned generation unit retirements;
- Mitigates future costs for ensuring reliable service for MA customers, including during times of peak demand;
- Resiliency and Affordability Fund ($1 million annually for 15 years (total of $15 million)) – to support low-income rate-payers through energy security funding, promote clean energy projects on Cape Cod and the Islands, and fund distributed energy storage projects that will enhance the resiliency of coastal communities;
- Windward Workforce Fund ($2 million) – to recruit, mentor, and train MA residents for careers in the emerging offshore wind industry;
- Offshore Wind Industry Energy Accelerator Fund ($10 million) – to support the state's goals to rebuild and update ports and harbors, encourage and attract additional investments in local infrastructure, and create jobs in critical coastal communities;
- Host Community Agreement ($16 million) – Provides significant fiscal and economic benefits to the Town of Barnstable, in addition to taxes. In January 2019, the Town dedicated future HCA payments to a Water Stabilization Fund that will support water resources protection and new water wells within the Town;
- The Applicant and all major contractors will actively seek MA residents as candidates for positions;
- Construction of the Vineyard Wind offshore wind energy generation project will provide economic benefits to maritime industries and that the Project's contractors will utilize local companies for portions of the offshore and onshore work;
- Renewable energy is an emerging industry sector with the potential for economic expansion of the Cape Cod economy; and
- Marine Mammal Innovation Fund (aka "Wind and Whales Fund") ($3 million) – to support development and demonstration of innovative methods and technologies to enhance protections for marine mammals as the MA and U.S. offshore wind industry continues to grow.

212. The following are probable detriments of the Project:

- Potential impacts to water quality from the Project's substation proposed hazardous materials use within a Wellhead Protection Area, however the Project addresses this issue through the HCA agreement with the Town focused on water supply development and water

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resource protection and significant commitments to containment systems at the substation site and spill prevention measures;

- Clearing of several acres of forested upland for substation construction at Independence Park site, however the Applicant has committed to permanently protect high resource value land and/or to contribute funds for open space protection to mitigate this impact;
- Temporary traffic and other impacts at Covell's Beach and along land-based route during Project construction, however the Applicant proposes to minimize these impacts through strategies inclusive of seasonal restrictions established in the HCA on use of the Covell's Beach parking lot (limited to the off-season) and the maintenance of access to portions of the parking lot even during construction, and Traffic Management Plans and other construction protocols developed in consultation with the Town;
- Potential visual impact of new substation on its neighboring residential development, however the Applicant proposes to minimize visual and noise impacts from the new substation with vegetated buffers and other landscaping, and an acoustic/visual barrier and its corresponding design;
- Potential for impact to marine mammals and fisheries, however the Applicant has attempted to minimize, mitigate or avoid harm to such resources through Project routing, time of year restrictions on work, and proposed construction methods. The Applicant is also is working with the University of Massachusetts Dartmouth School for Marine Science and Technology; DMF, NOAA, BOEM, and other state and federal agencies; and regional stakeholders on developing the framework, duration, and scope of pre-and post-construction fisheries monitoring and the implementation of a Fisheries Communications Plan to avoid and minimize disruptions to commercial and recreational fishing activities, in collaboration with port authorities; federal, state, and local authorities; and other key stakeholders.

CONCLUSION

Based on the Findings above, and subject to the following Conditions, the Cape Cod Commission hereby grants DRI approval for the Vineyard Wind Connector Project as described herein, further finding and determining that:

A. The Project is consistent with the Cape Cod Commission Act and the 2019 Cape Cod Regional Policy Plan.

B. The Project is consistent with the Town of Barnstable's Local Comprehensive Plan, as applicable.

C. The Project is consistent with municipal development bylaws, subject to the Applicant obtaining all required local approvals, licenses, and permits for the Project, and the requisite zoning exemptions from the EFSB.

D. The Project is consistent with DCPC Implementing Regulations, as applicable, subject to the Applicant obtaining all required local approvals, licenses, and permits for the Project, and the requisite zoning exemptions from the EFSB.

E. The probable benefit of the proposed Project is greater than the probable detriment of the proposed Project.

CONDITIONS

Condition 1: When final, this Decision shall be valid and effective, and municipal development permits may be issued for the Project, pursuant to this Decision for a period of up to seven years following the date of this Decision (the Applicant may request and the Commission may grant an extension to such period in accordance with the relevant provisions of the Code of Cape Cod Commission Regulations of General Application). This Decision shall be final when the appeal period set out in Section 17 of the Cape Cod Commission Act has elapsed without appeal (or if such

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an appeal has been filed, when the appeal has been finally settled, dismissed, adjudicated, or otherwise disposed of in favor of the Applicant), and a copy of this Decision has been recorded with the Barnstable Registry of Deeds. The Applicant shall bear the costs of so recording this Decision.

Condition 2: This Decision shall bind and be enforceable against, and inure to the benefit of, the Applicant, its successors, and assigns.

Condition 3: The Project shall be undertaken, constructed, operated, and maintained in accordance with the "Approved Project Plans" referenced in Exhibit D attached hereto and incorporated herein, except as certain of such constituent Plans are conceptual in nature and are otherwise anticipated to be submitted in final, amended or updated form post-Decision pursuant to these Conditions. When and as any plans and documents required to be submitted as Conditions of this Decision are reviewed and determined by Commission staff to be consistent with this Decision, such plans and documents shall be deemed incorporated into the Approved Project Plans, and the Project shall similarly be undertaken, constructed, operated, and maintained in accordance with the same.

Condition 4: Prior to commencement of the relative phase or component of the Project, the Applicant shall provide the following plans or documents for Commission staff review and a determination that said plans or documents are consistent with this Decision:

- The Applicant shall prepare and submit a construction and demolition waste plan and construction-period erosion and sediment control plan for the Covell's Beach parking lot.
- The Applicant shall provide a final substation equipment inventory, including expected types and volumes of all hazardous materials associated with equipment in the final substation design plans.
- To the extent the inventory reveals use or storage of significant volumes of hazardous materials at the substation over and above the dielectric fluid and equipment lube which was contemplated at the time of this Decision, then the Applicant shall provide a management plan for storage and use of such hazardous materials with the purpose of minimizing, mitigating, or avoiding potential harm to drinking water wells in the event of a spill or release of such materials, which plan may require that the Applicant provide additional containment capacity at the substation.
- The Applicant shall provide final site and containment design details for the substation that demonstrate, consistent with the HCA, containment equal to a minimum of 110% of the dielectric fluid volume contained in the associated equipment plus an additional volume to include the 100-year storm event over a 24-hour period. Final site plans and containment design details for the substation site should also demonstrate full containment under any oil-containing ancillary equipment (e.g., lube oil system) required for the synchronous condensers; and provide the final design plans and sizing for the common drain system
- The Applicant shall provide a copy of the final substation spill prevention and response plan, inclusive of descriptions of spill/leak detection instrumentation, plans for remote monitoring, staffing, and spill/leak response equipment.
- The Applicant shall provide final stormwater management plans for the substation site, including pre-treatment, sizing, and cross-sections for the proposed grass swales and infiltration basin.
- The Applicant shall provide a spill prevention and countermeasures plan for all construction activities, including a construction refueling plan and identification of laydown and staging areas. The refueling plan should direct refueling activities to areas outside of Wellhead Protection Areas to the maximum extent practicable.
- The Applicant shall finalize the Erosion and Sediment Control Plan, which shall apply to construction elements beyond the proposed substation, e.g. along the proposed onshore export cable route, and provide a Stormwater Pollution Prevention Plan (as approved with the NPDES).

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- Should the Applicant pursue installation of the battery storage system at the new substation site as referenced in the DRI application materials, the Applicant shall provide a detailed plan of the same, inclusive of containment required for any associated hazardous materials.
- The Applicant shall provide final design plans for the substation, which shall include final: substation site plans; architectural/elevation plans; security fence and visual and acoustic buffer design; landscaping plan; and lighting plan.
    - The Applicant shall maintain a minimum 50-foot-wide buffer of vegetation between the substation and Independence Drive, and shall, so far as practicable given the utility easement layout to the east of the proposed substation, retain a minimum 30-foot-wide vegetated easterly sideline buffer. Existing natural vegetation at the substation site shall be retained and not cleared or removed within these buffers, except as necessary to construct the Project and in accordance with that clearing depicted in the Approved Project Plans. The Applicant shall replant the approximately 20-foot-wide strip of the southerly buffer of the substation site that will be temporarily disturbed during cable installation.
    - In developing the final design for the substation, the Applicant should work, in consultation with the Town, to minimize, to the maximum extent practicable given site constraints, visual impacts from the Project on nearby residential development to the east through approaches which may include, but are not limited to, site landscaping, security fence placement inside the vegetative buffer, and visual and acoustic barrier color/materials/design. The Applicant should investigate whether it might be practicable to retain and/or provide more effective vegetative screening in the northeast corner of the site outside of the substation's visual and acoustic barrier and if so, to incorporate the same into the final plans.
    - Any lighting proposed shall be designed, constructed, and maintained consistent with the RPP's Community Character lighting standards and with the Commission's Community Design Technical Bulletin.

Condition 5: Prior to undertaking the same, the Applicant shall apply to and obtain permission from the Commission for any Project changes or changes to this Decision, in accordance with the "Modification" section of the Commission's *Enabling Regulations* in effect at the time the permission is sought. The submission of plans and documents anticipated to be submitted in final, amended, or updated form post-Decision pursuant to these Conditions shall not be considered a "change" unless such plans and documents present substantially different circumstances than contemplated under this Decision.

Condition 6: Prior to commencement of the relative phase or component of the Project, the Applicant shall provide evidence to the Commission that a copy of this Decision has been provided to and received by the general contractor for the Project. Copies of this Decision and approved Project plans and documents referenced herein shall be maintained on premises during Project construction.

Condition 7: The Applicant shall obtain all required federal, state, and local permits, licenses, and approvals. The Project's consistency with required Municipal Development Bylaws shall be ratified and confirmed by the Applicant obtaining the required municipal development permits and the appropriate zoning waivers and determinations from the DPU/EFSB. The Applicant shall provide or otherwise ensure that the Commission is provided with copies of all final state and local permits, licenses, and approvals, for activities within the Commission's jurisdiction, including without limitation MassDOT access permit approvals.

Condition 8: Prior to and as a condition to final use and operation of the Project, the Applicant shall apply for and obtain a Certificate of Compliance for the Project from the Commission. Issuance of the Certificate of Compliance is contingent on Commission staff's review and determination that the Project has been undertaken in accordance with this Decision. Commission staff may make, and the Applicant hereby authorizes, site inspections upon reasonable notice to the Applicant as such visits are needed, to determine whether the Project has been constructed and is

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being maintained, used, and operated in accordance with this Decision, including the applicable Conditions hereof. Commission staff may require submission of further information from the Applicant to evidence compliance with this Decision, prior to and in support of issuance of such Certificate of Compliance.

Condition 9: The Applicant shall continue to pursue and meet its obligations under the HCA with the Town, including without limitation making all payments to the Town and providing substation containment as described in and required under said HCA.

Condition 10: The Applicant shall continue to work with applicable state and federal agencies to finalize and implement TOY restrictions and BMPs to avoid, minimize, and/or mitigate impacts to coastal and ocean resources, species, and habitats, and ocean-dependent human uses.

Condition 11:The Applicant shall continue to work with: University of Massachusetts Dartmouth School for Marine Science and Technology; DMF, NOAA, BOEM; and other state and federal agencies and regional stakeholders to finalize the framework, duration, and scope of the pre-and post-construction fisheries monitoring program. The Applicant shall provide the Commission a copy of the fisheries monitoring plan once finalized. Additionally, the Applicant shall provide a copy of the final Fisheries Communications Plan to the Commission.

Condition 12: The Applicant shall continue to develop TMPs in coordination with local and state agencies and Commission staff, with the goal of minimizing travel disruptions to the transportation system and with a preference for performing work at off-season and off-peak hours, including nighttime hours, for major regional roadways and intersections, such as Route 132. The Applicant will continue to focus on safety and minimizing impacts to the traveling public as it develops final TMPs and the Project implementation schedule, including location-specific TMPs for signalized intersections along the Project land route.

Condition 13: Construction within existing roadways shall conform to the Applicant's commitments in the HCA, specifically, that work will conform to MassDOT and Town specifications for new road construction, and that the Applicant will restore roadways to "like new" condition or a mutually acceptable alternative consistent with then-existing Town of Barnstable policies and procedures. Wherever existing sidewalks or multi-use paths are impacted by roadway construction activities, they should be repaired or replaced to same or better condition, in coordination with and at the direction of the Town of Barnstable under the HCA and applicable state agency review.

Condition 14: The Applicant shall coordinate with the Town and state agencies prior to the initiation of onshore export cable installation activities to determine if opportunities for infrastructure efficiencies relative to siting and scheduling exist, including but not limited to sidewalk and multi-use path installation, and if feasible, the Applicant should use reasonable efforts to pursue those opportunities.

Condition 15: The Applicant shall make reasonable efforts to publicize construction activities, detours or road closures utilizing various media outlets, such as media outreach and Variable Message Signs ("VMS") located at key points within the study area, in particular impacts to roadways that will span over an extended period of time and impacts that will occur on a major regional roadway.

Condition 16: The Applicant shall continue to work with MHC and MBUAR to establish and implement avoidance, minimization, and mitigation measures for both terrestrial and submarine historical and archaeological resources within the Project route.

Condition 17: The Applicant shall make payments to local funds as specified in the HCA, undertake training programs, and establish funding programs/initiatives (i.e., Offshore Wind Industry Energy Accelerator Fund, Windward Workforce Fund, Resiliency and Affordability Fund, and Marine Mammal Innovation Fund (aka "Wind and Whales Fund") as proposed.

Condition 18: Within 60 months from the date of this Decision, as final, the Applicant shall provide through any combination of the following a total of 5.9 acres of permanent open space protection of high resource value land on Cape Cod: (i) the Town of Barnstable approves the use of

funds provided through the Host Community Agreement to permanently protect land that could currently be developed; (ii) the Applicant pays to the Commission such payments considered to protect land as open space at a rate of $97,096 per acre (such that a sum of $572,866.40 would fully satisfy the commitment to provide for 5.9 acres of open space protection) to be held for the benefit and on behalf of a municipality or nonprofit (501(c)(3)) conservation organization or land trust to request for its use for open space protection purposes; (iii) the Applicant permanently protects land through a statutory Conservation Restriction or other equivalent mechanism; (iv) the Applicant donates land in fee for conservation purposes to a municipality or nonprofit (501(c)(3)) conservation organization or land trust; or (v) Vineyard Wind contributes to a municipality or nonprofit (501(c)(3)) conservation organization or land trust for the purpose of funding a specific identified open space land acquisition or conservation restriction by that entity, the amount of land considered protected by the Applicant to be the same proportion to the total area protected as is Applicant's contribution proportional to the total cost of the entire acquisition or conservation restriction. The Applicant will make an annual compliance filing with the Cape Cod Commission that informs the Commission of the status of progress towards satisfying this Condition until the Condition is fully satisfied.

SIGNATURE PAGE FOLLOWS

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SIGNATURE PAGE

Executed this _____ day of May 2019.

_____
Signature/ Title

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss May _____, 2019

Before me, the undersigned notary public, personally appeared _____, in his/her capacity as _____ of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that he/she signed such document voluntarily for its stated purpose on behalf of the Cape Cod Commission. The identity of such person was proved to me through satisfactory evidence of identification, which was [ ] photographic identification with signature issued by a federal or state governmental agency, [ ] oath or affirmation of a credible witness, or [X] personal knowledge of the undersigned.

_____
Notary Public:
SEAL My Commission Expires:

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EXHIBIT A

[Application Materials Submitted and Other Review Documents]

Certified 300' Abutters List for the Project from the Town of Barnstable Assessing Department

Copies of Barnstable Town Council resolutions/ meeting minutes from October 18, 2018 and January 3, 2019, and January 17, 2019

Copy of Applicant's Environmental Notification Form filed under MEPA and dated December 15, 2017, 2017 (EEA No. 15787)

Cape Cod Commission comment letter dated January 19, 2018 on Applicant's Environmental Notification

Copy of Commonwealth's Certificate dated February 9, 2018 on the Applicant's Environmental Notification Form

Copy of Applicant's Draft Environmental Impact Report filed under MEPA and dated April 30, 2018 (EEA No. 15787)

Copy of Commonwealth's Certificate dated June 15, 2018 on the Applicant's Draft Environmental Impact Report

Copy of Applicant's Supplemental Draft Environmental Impact Report filed under MEPA and dated August 31, 2018 (EEA No. 15787)

Cape Cod Commission comment letter dated October 4, 2018 on the Applicant's Supplemental Draft Environmental Impact Report

Copy of Commonwealth's Certificate dated October 12, 2018 on the Applicant's Supplemental Draft Environmental Impact Report

Copy of Applicant's Final Environmental Impact Report filed under MEPA and dated December 17, 2018 (EEA No. 15787)

Cape Cod Commission comment letter dated January 25, 2019 on the Applicant's Final Environmental Impact Report

Copy of Commonwealth's Certificate dated February 1, 2019 on the Applicant's Final Environmental Impact Report

Copies of Public Comments submitted to the MEPA Office on the Applicant's Final Environmental Impact Report

Applicant's DRI application to the Commission dated 2/8/19 received by the Commission 2/11/19, consisting of five (5) sections and including attachments A through M, with a revised table of comments to the Application submitted 2/25/19

Copy of Host Community Agreement between Applicant and Town of Barnstable with a 10/03/18 date of execution

Copy of Applicant's Agreement with certain NGO's re: North Atlantic Right Whale protections dated January 22, 2019

Draft 043019

April 2, 2019 correspondence from Applicant's Counsel to the Commission with the following enclosures, with certificate evidencing service to the Town of Barnstable for all of the same:

- Letter to the Cape Cod Commission c/o J. Idman, Commission staff, from Theodore A. Barten, Epsilon Associates, with attachments, dated April 2, 2019, re: request for a waiver with respect to RPP Water Resources Objective WR-1; a discussion of the Project's compliance with Open Space Objective OS-3; the provision of certain stormwater calculations and an updated Stormwater Management Plan; discussion of visual impacts and landscaping aspects of the project; and further discussion of how the Project meets the requirements of the Cape Cod Commission Act and merits approval, including a table of the relative project benefits and detriments suggested by the Applicant;
- Pre-filed Direct Testimony of Theodore A. Barten, dated April 1, 2019;
- Pre-filed Direct Testimony of Erich Stephens, dated April 1, 2019;
- Pre-filed Direct Testimony of John ("Jack") Arruda, dated April 1, 2019;
- Pre-filed Direct Testimony of Holly Carlson Johnston, dated April 1, 2019;
- Pre-filed Direct Testimony of Nathaniel Mayo, dated April 1, 2019;
- Pre-filed Direct Testimony of Kate McEneaney, dated April 1, 2019;
- Appearance of Counsel by Adam P. Kahn, dated April 2, 2019;
- Appearance of Counsel by Zachary Gerson, dated April 2, 2019;

Copy of Letter from Massachusetts DOER to Massachusetts DPU dated August 1, 2018 requesting that DPU approve long term contracts for the Project proposed between the Applicant and certain electric distribution companies

Copy of Zoning Exemptions Abstract from Applicant's Zoning Petition to the EFSB, dated November 2, 2018 (consolidated docket EFSB 17-05/ DPU 18-18 & 18-19)

Copy of Applicant's Initial Brief to the EFSB, dated November 28, 2018 (consolidated docket EFSB 17-05/ DPU 18-18 & 18-19)

April 5, 2019 correspondence from Applicant's Counsel to the Commission re: EFSB zoning exemptions and other matters, with certificate evidencing service to the Town of Barnstable

Recorded copy of Notice of Option to Lease between Flagship Storage Hyannis LLC (Landlord) and Vineyard Wind LLC (Tenant) re: proposed substation site/ property located at 40 Communication Way, Hyannis, with a December 14, 2017 date of execution (Deed Book 31050 Page 189)

Email correspondence dated April 5, 2019 from Kate McEneaney for the Applicant to J. Idman, Commission staff, re: hazardous materials

Copy of Easement re: Covell's Beach dated October 19, 2018, Town of Barnstable Grantor, Vineyard Wind LLC, Grantee

Applicant Power Point presentation for April 9, 2019 DRI hearing

Affirmation re: Applicant's representatives' oral testimony for April 9, 2019 DRI hearing, executed April 9, 2019

April 22, 2019 correspondence from Applicant's Counsel to the Commission re: comments on Commission staff memorandum dated April 5, 2019, with certificate evidencing service to the Town of Barnstable

April 24, 2019 correspondence from Applicant's Counsel to the Commission re: proposed Open Space Condition for draft DRI decision, with certificate evidencing service to the Town of Barnstable

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EXHIBIT B
[Summary of Applicable and Material RPP Goals and Objectives]

[Attached]

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EXHIBIT C
[List of Public Comments]

- Letter from Cape Cod Legislative Delegation (Sen. Cyr, Sen. deMacedo, Rep. Peake, Rep. Vieira, Rep. Crocker), dated April 9, 2019
- Letter from Elizabeth Jenkins, Director, Town of Barnstable, Planning and Development Department, dated April 9, 2019
- Letter from Mon Cochran, Executive Director, Cape Cod Climate Change Collaborative, dated April 9, 2019
- Letter from Don Keeran, Assistant Director, Association to Preserve Cape Cod (APCC) dated April 26, 2019
- Email from JoAnne Levesque dated April 29, 2019
- Email from Judith Worthington dated April 29, 2019
- Verbatim Transcript of April 9, 2019 DRI hearing on the Project, by Linda L. Wesson/ Canal Court Reporting

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EXHIBIT D
["Approved Project Plans"]

Stormwater Management Report, Attachment H to DRI Application as supplemented/ updated by Supplemental Stormwater Report for new substation prepared by Stantec dated 3/15/19, including corresponding civil site plan sheets for substation site individually titled "Cover," "General Notes," "Existing Conditions," "Proposed Equipment Layout (AIS)," "Proposed Grading and Drainage (AIS)," "Detail Sheet 1," "Detail Sheet 2," "Detail Sheet 3," and "Drainage Profile," all with revised date of 3/15/19 (Attachment 2 to Epsilon's Supplemental Letter Dated April 2, 2019)

Vineyard Wind Connector- Barnstable County Project Overview, Figure 1-2, Attachment A to DRI Application

Vineyard Wind Connector- Onshore Export Cable Routing, Figure 1-3, Attachment A to DRI Application

Vineyard Wind Connector- Offshore Export Cable Corridor/ Potential Dredging Locations (Maximum Design Scenario), Figure 2-3, DRI Application dated 2/8/19 Attachment A

Vineyard Wind Connector- Typical Duct Bank Cross Sections, Figure 2-4, Attachment A to DRI Application

Vineyard Wind Connector- Substation Draft Site Plan/ Layout, Figures 2-6, 2-7 & 2-8, Attachment A to DRI Application

Vineyard Wind Connector- Substation Rendering, Figures 2-10a, 2-10b, 2-10c, 2-10d, 2-10e, 2-10f & 2-10g, Attachment A to DRI Application

Vineyard Wind Connector- Jet Plow, Figure 3-1, Attachment A to DRI Application

Vineyard Wind Connector- Typical Offshore Export Cable Spacing, Figure 3-2, Attachment A to DRI Application

Vineyard Wind Connector- Covell's Beach HDD Schematic, Figure 3-3, Attachment A to DRI Application

Vineyard Wind Connector- Covell's Beach HDD Plan and Profile, Figure 4-7, Attachment A to DRI Application

Plan Set entitled "Vineyard Wind Upland 220kV Transmission Cable Duct Bank Route," consisting of a cover sheet and sheets 1 through 28, prepared by Stantec dated 11/15/2018, Attachment E to DRI Application

Traffic TMP's, See sheets 20 through 24 of Plan Set/ Attachment E to DRI Application and DRI Application section 4.7.1 and figure 4-3 in said section 4

Fisheries Communication Plan, rev. dated 6/28/2018, Attachment I to DRI Application

Benthic Habitat Monitoring Plan, dated August 2018, Attachment J to DRI Application

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Exhibit B

Cape Cod Regional Policy Plan
Applicable and Material Goals and Objectives

Project Name: Vineyard Wind Connector Project
Cape Cod Commission File #: 17026
Applicant: Vineyard Wind LLC

	Both Applicable and Material to the Project	Not Applicable/Material to the Project
NATURAL SYSTEMS		
WATER RESOURCES ("WR")		
GOAL – WR: To maintain a sustainable supply of high quality untreated drinking water and protect, preserve, or restore the ecological integrity of Cape Cod's fresh and marine surface water resources.	✓	
OBJECTIVE WR1: Protect and preserve groundwater quality	✓	
OBJECTIVE WR2: Protect, preserve and restore fresh water resources		✓
OBJECTIVE WR3: Protect, preserve and restore marine water resources		✓
OBJECTIVE WR4: Manage and treat stormwater to protect and preserve water quality	✓	
OBJECTIVE WR5: Manage groundwater withdrawals and discharges to maintain hydrologic balance and protect surface and groundwater resources		✓
OCEAN RESOURCES ("OR")		
GOAL – OR: To protect, preserve, or restore the quality and natural values and functions of ocean resources.	✓	
OBJECTIVE OR1: Locate development away from sensitive resource areas and habitats	✓	
OBJECTIVE OR2: Preserve and protect ocean habitat and the species it supports	✓	
OBJECTIVE OR3: Protect significant human use areas and vistas	✓	
WETLAND RESOURCES ("WT")		
GOAL – WT: To protect, preserve, or restore the quality and natural values and functions of inland and coastal wetlands and their buffers.	✓	
OBJECTIVE WT1: Protect wetlands and their buffers from vegetation and grade changes	✓	
OBJECTIVE WT2: Protect wetlands from changes in hydrology		✓
OBJECTIVE WT3: Protect wetlands from stormwater discharges		✓
OBJECTIVE WT4: Promote the restoration of degraded wetland resource areas		✓
WILDLIFE AND PLANT HABITAT ("WP")		
GOAL – WP: To protect, preserve, or restore wildlife and plant habitat to maintain the region's natural diversity.	✓	
OBJECTIVE WP1: Maintain existing plant and wildlife populations and species diversity	✓	
OBJECTIVE WP2: Restore degraded habitats through use of native plant communities		✓
OBJECTIVE WP3: Protect and preserve rare species habitat, vernal pools, 350-foot buffers to vernal pools	✓	
OBJECTIVE WP4: Manage invasive species		✓
OBJECTIVE WP5: Promote best management practices to protect wildlife and plant habitat from the adverse impacts of development	✓	
OPEN SPACE ("OS")		
GOAL – OS: To conserve, preserve, or enhance a network of open space that contributes to the region's natural and community resources and systems.	✓	
OBJECTIVE OS1: Protect and preserve natural, cultural, and recreational resources	✓	
OBJECTIVE OS2: Maintain or increase the connectivity of open space	✓	
OBJECTIVE OS3: Protect or provide open space appropriate to context	✓	
BUILT SYSTEMS		
COMMUNITY DESIGN ("CD")		
GOAL – CD: To protect and enhance the unique character of the region's built and natural environment based on the local context.	✓	
OBJECTIVE CD1: Promote context sensitive building and site design	✓	
OBJECTIVE CD2: Minimize the amount of newly disturbed land and impervious surfaces	✓	
OBJECTIVE CD3: Avoid adverse visual impacts from infrastructure to scenic resources	✓	

COASTAL RESILIENCY ("CR")		
GOAL – CR: To prevent or minimize human suffering and loss of life and property or environmental damage resulting from storms, flooding, erosion, and relative sea level rise.	✓	
OBJECTIVE CR1: Minimize development in the floodplain	✓	
OBJECTIVE CR2: Plan for sea level rise, erosion, and floods	✓	
OBJECTIVE CR3: Reduce vulnerability of built environment to coastal hazards	✓	
CAPITAL FACILITIES AND INFRASTRUCTURE ("CF")		
GOAL – CF: To guide the development of capital facilities and infrastructure necessary to meet the region's needs while protecting regional resources.	✓	
OBJECTIVE CF1: Ensure capital facilities and infrastructure promote long-term sustainability and resiliency	✓	
OBJECTIVE CF2: Coordinate the siting of capital facilities and infrastructure to enhance the efficient provision of services and facilities that respond to the needs of the region	✓	
TRANPORTATION ("TR")		
GOAL – TR: To provide and promote a safe, reliable, and multi-modal transportation system.	✓	
OBJECTIVE TR1: Improve safety and eliminate hazards for all users of Cape Cod's transportation system	✓	
OBJECTIVE TR2: Provide and promote a balanced and efficient transportation system that includes healthy transportation options and appropriate connections for all users		✓
OBJECTIVE TR3: Provide an efficient and reliable transportation system that will serve the current and future needs of the region and its people		✓
ENERGY ("EN")		
GOAL – EN: To provide an adequate, reliable, and diverse supply of energy to serve the communities and economies of Cape Cod.	✓	
OBJECTIVE EN1: Support renewable energy development that is context-sensitive	✓	
OBJECTIVE EN2: Increase resiliency of energy generation and delivery	✓	
OBJECTIVE EN3: Minimize energy consumption through planning and design (energy efficiency and conservation measures)		✓
COMMUNITY SYSTEMS		
CULTURAL HERITAGE ("CH")		
GOAL – CH: To protect and preserve the significant cultural, historic, and archeological values and resources of Cape Cod.	✓	
OBJECTIVE CH1: Protect and preserve forms, layouts, scale, massing, and key character defining features of historic resources, including traditional development patterns of villages and neighborhoods		✓
OBJECTIVE CH2: Protect and preserve archaeological resources and assets from alteration or relocation	✓	
OBJECTIVE CH3: Preserve and enhance public access and rights to and along the shore	✓	
OBJECTIVE CH4: Protect and preserve traditional agricultural and maritime development and uses		✓
ECONOMY ("EC")		
GOAL – EC: To promote a sustainable regional economy comprised of a broad range of businesses providing employment opportunities to a diverse workforce.	✓	
OBJECTIVE EC1: Protect and build on the Cape's competitive advantages		✓
OBJECTIVE EC2: Use resources and infrastructure efficiently	✓	
OBJECTIVE EC3: Foster a balanced and diverse mix of business and industry		✓
OBJECTIVE EC4: Encourage industries that provide living wage jobs to a diverse workforce	✓	
OBJECTIVE EC5: Expand economic activity and regional wealth through exports, value added, import substitution, and local ownership		✓

GOAL NOT APPLICABLE OR MATERIAL TO PROJECT		
WASTE MANAGEMENT ("WM")		
GOAL – WM: To promote a sustainable solid waste management system for the region that protects public health, safety, and the environment and supports the economy.		✓
HOUSING ("HO")		
GOAL – HO: To promote the production of an adequate supply of ownership and rental housing that is safe, healthy, and attainable for people with different income levels and diverse needs.		✓