



VINEYARD WIND

CABLE CORRIDOR FACT SHEET & FAQs

Geophysical and geotechnical data was collected along the cable corridor in the summer of 2017 and 2018.

The width of the cable corridor sampled was 2,657- 3,280 feet. The cable will be monitored after installation and at regular intervals over the life of the project.

Geophysical data are collected using remote sensing systems that include:

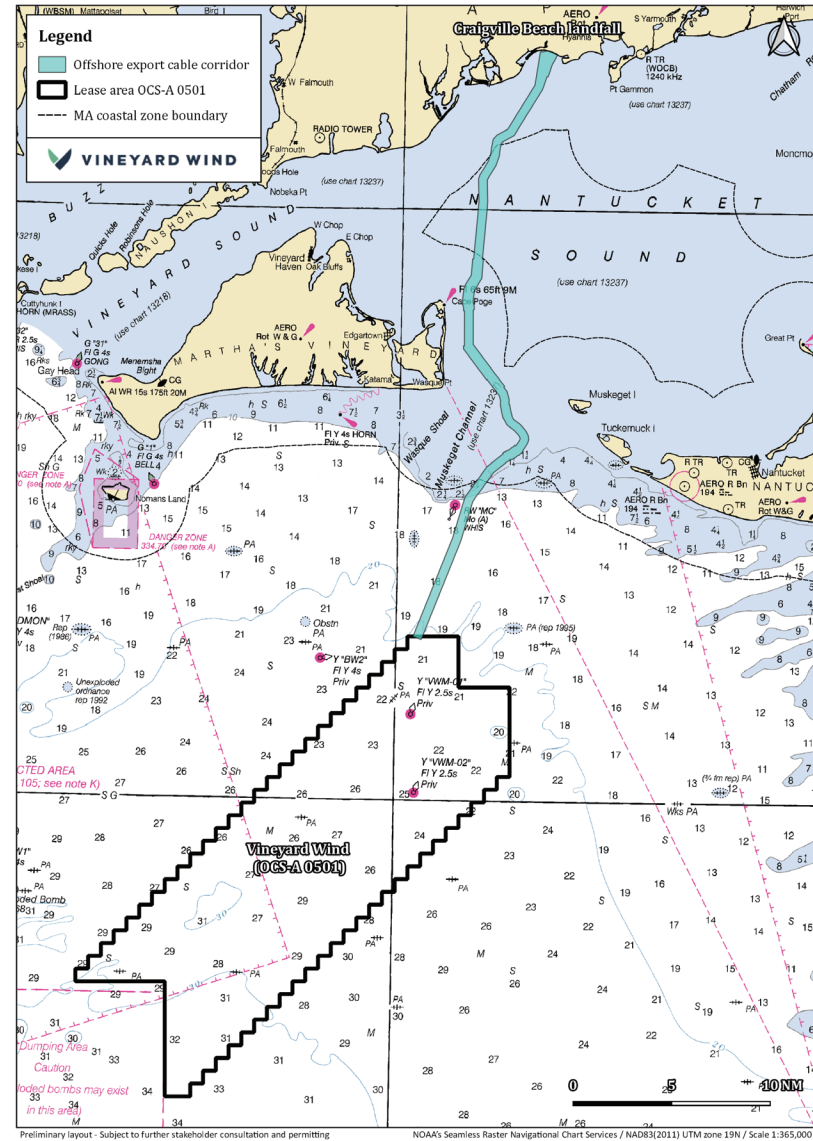
- Side scan sonar** – high frequency sonar to obtain acoustic images of the seafloor only
- Bathymetry** – multibeam sonar - provides a swath of water depth (bathymetry) data
- Magnetometer** – sensor that detects ferrous (iron) objects on and below the seafloor
- Sub bottom profilers** – lower frequency sonar that penetrates below the seafloor to look at sediment layers in the upper 30-250 feet

Geotechnical data are acquired from physical sampling devices that include:

- Cone penetration testing (CPT)** – a 1.6 inch diameter probe that measures sediment properties as it is pushed into the sub-surface at 10-16 feet, or up to 115 feet
- Benthic grabs** – a small bucket that retrieves sediment from the surface layer of the seafloor and is used to analyze sediment grain size and benthic organisms
- Vibrocure** – takes a core sample 3-4 inches in diameter through sediment up to 15 feet

Visual Imagery is also collected along the cable corridor and includes:

- Underwater cameras** – records continuous video transects and/or still photos of the seafloor



Please contact Crista Bank, Fisheries Liaison, for latest information.
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What type of cable is it?

The offshore export cable which brings the electricity from the Electrical Service Platform in the wind farm to shore is a 220 kV AC cable. The inter-array cable – which connects each turbine to each other - is a 66 kV AC cable.



What is the diameter of the cable?

The offshore export cable is 10-10.5 inches in diameter. The inter-array cables are 5-6 inches in diameter.

Why are there two offshore export cables?

Two cables, 400 MW each, are needed to transmit the power generated by an 800 MW Project.

Why can't they be buried together?

Both offshore export cables will be buried in the same corridor but a reasonable distance (around 330 feet) between the cables must be maintained for installation and in case any repairs are necessary.

How wide an area will be disturbed during burial?

Trench width is expected to be approximately 3.5 feet for each cable. Cable installation equipment can temporarily disturb a 3.5-6.5 foot wide area on the seafloor.

How deep will they be buried?

The offshore export cables, and the inter-array cables will be buried beneath the seafloor at a target depth of up to 5-8 feet.

What happens if it can't be buried?

Cable burial is a top priority, however if sufficient depth cannot be reached there are different cable protection methods that can be used:

Rock placement - Laying rocks on top of the cable to provide protection.

Concrete mattresses - Prefabricated flexible concrete coverings that are laid on top of the cable.

Half-shell pipes - Two halves are fixed around the cable to provide mechanical protection. They are made with composite materials (e.g., Subsea Uraduct) or cast iron with corrosion protection.

What effect will the cables have with respect to electromagnetic (EMF) fields?

AC subsea power cables have the potential to emit a low-level (less than a common magnet) localized EMF, within a few feet of a buried cable. At the target depth of 5-8 feet, EMF levels are greatly reduced.

How long does it take to install the cable?

With the simultaneous lay-and-bury technique, each cable could be installed in about one month. An additional two days per cable is required for installation at the Landfall Site and six days is required for any cable splice or joint operations (splicing will occur onboard a vessel and out of the water).

When will the cables be installed?

Export cables will be installed in accordance with time of year restrictions to reduce conflict with commercial fishing activity. In the northern portion of Nantucket Sound cables are scheduled to be installed in the fall of 2020. The remaining cable in the southern portion of Nantucket Sound to the wind farm is scheduled to be installed in the late winter / early spring of 2021.

How will the benthic habitat be impacted during cable installation?

Sediment dispersion along the cable route was modeled and results indicate the impacts from cable burial are temporary, short-term, and confined to the immediate vicinity of the cable route. For example, the maximum depth of potential resettled sediment is less than ½ inch.