



VINEYARD WIND

BOEM Inter-Agency Task Force
Project Update
April 24, 2018

Permitting Status

	Federal Permitting	State Permitting
December 2017	Draft COP submitted <ul style="list-style-type: none"> • Ongoing updates to COP until deemed sufficient • Available for review before finalizing 	ENF (MEPA) & EFSB Applications
January/February 2018		<ul style="list-style-type: none"> • MEPA hearing and scoping for Environmental Impact Report (DEIR). • MEPA Certificate released
April 2018	EIS Scoping Hearings (April 16-19)	EFSB Hearing (April 24 th) DEIR to be submitted April 30 th

Permitting Process (general overview)

Begun

Complete

Federal

State

- ACOE
- EPA
- BOEM**
- USCG
- NMFS
- FAA

MEPA

EFSB

COP

NEPA Scoping

DEIS

FEIS

Record of Decision

Facilities Design Report & Fabrication Installation Report

- National Environmental Policy Act
- Endangered Species Act
- National Historic Preservation Act
- Migratory Bird Treaty Act
- Magnuson-Stevens Fishery Conservation Management Act
- Marine Mammal Protection Act
- Coastal Zone Management Act
- Clean Air Act

ENF

CZM / CRMC

Scoping

MEPA Cert.

DEIR

DEIR Cert.

FEIR

Final MEPA Cert.

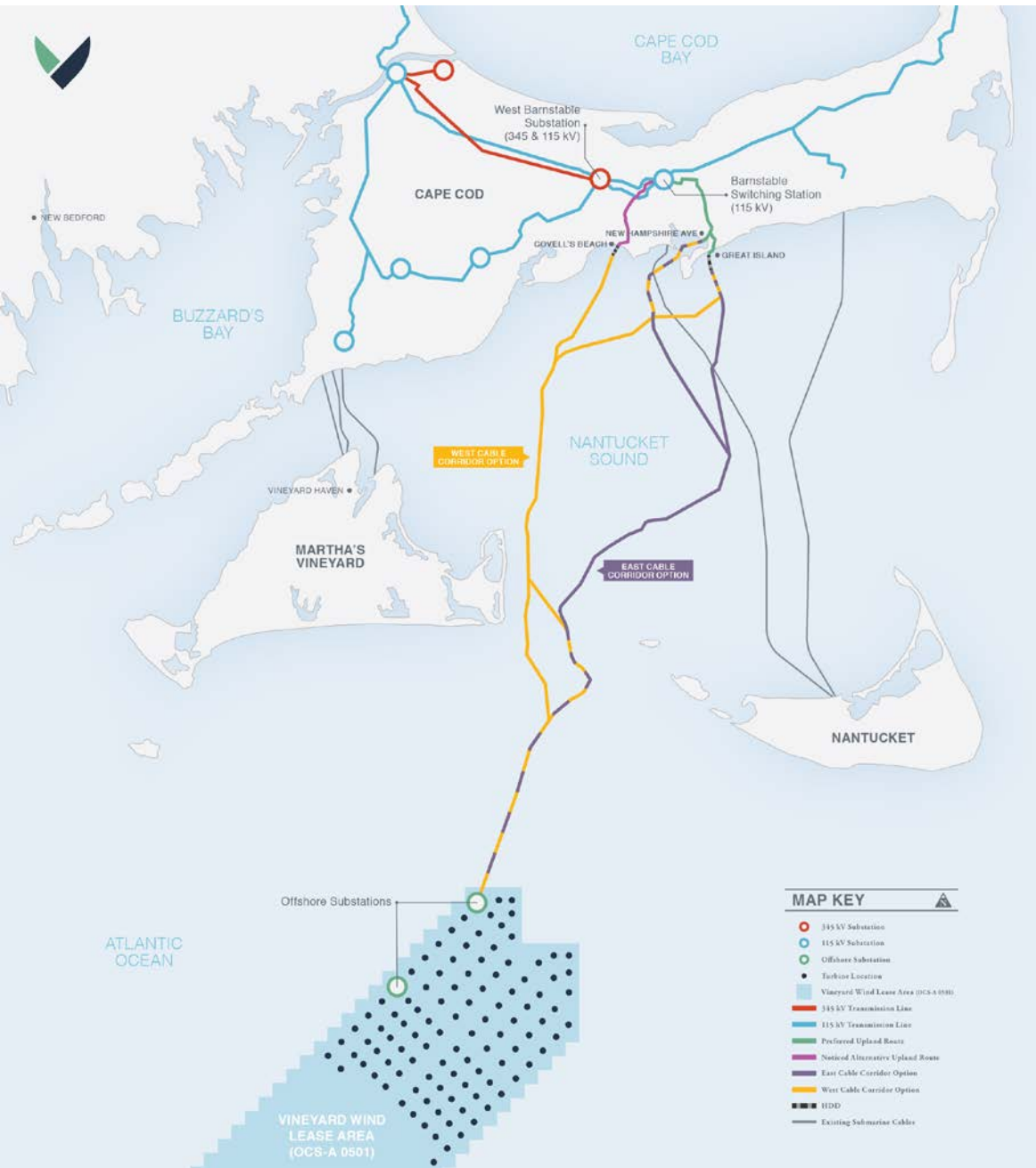
State Permits (including):
Chapter 91
401 WQC
Highway
Railroad

Cape Cod Commission & MV Commission

Town Conservation Commissions

Town Road Opening

PROJECT OVERVIEW



- **Generation Capacity: 800 MW**
 - Enough energy for over 400,000 homes and businesses
 - Could be built in phases
- **Turbine area: 14 miles from Martha's Vineyard and Nantucket**
 - 106 positions being permitted, all with scour protection
- **Turbines: Between 8 - 10 MW**
- **Construction, staging and deployment base: New Bedford**
 - Support from other nearby ports
- **Operations & Maintenance: Routine from Martha's Vineyard**
 - Long-term from New Bedford or other nearby port
- **Electrical interconnection: Barnstable Switch Substation**
 - Cable landfall in Barnstable or Yarmouth
 - Up to 3 cables, in one corridor

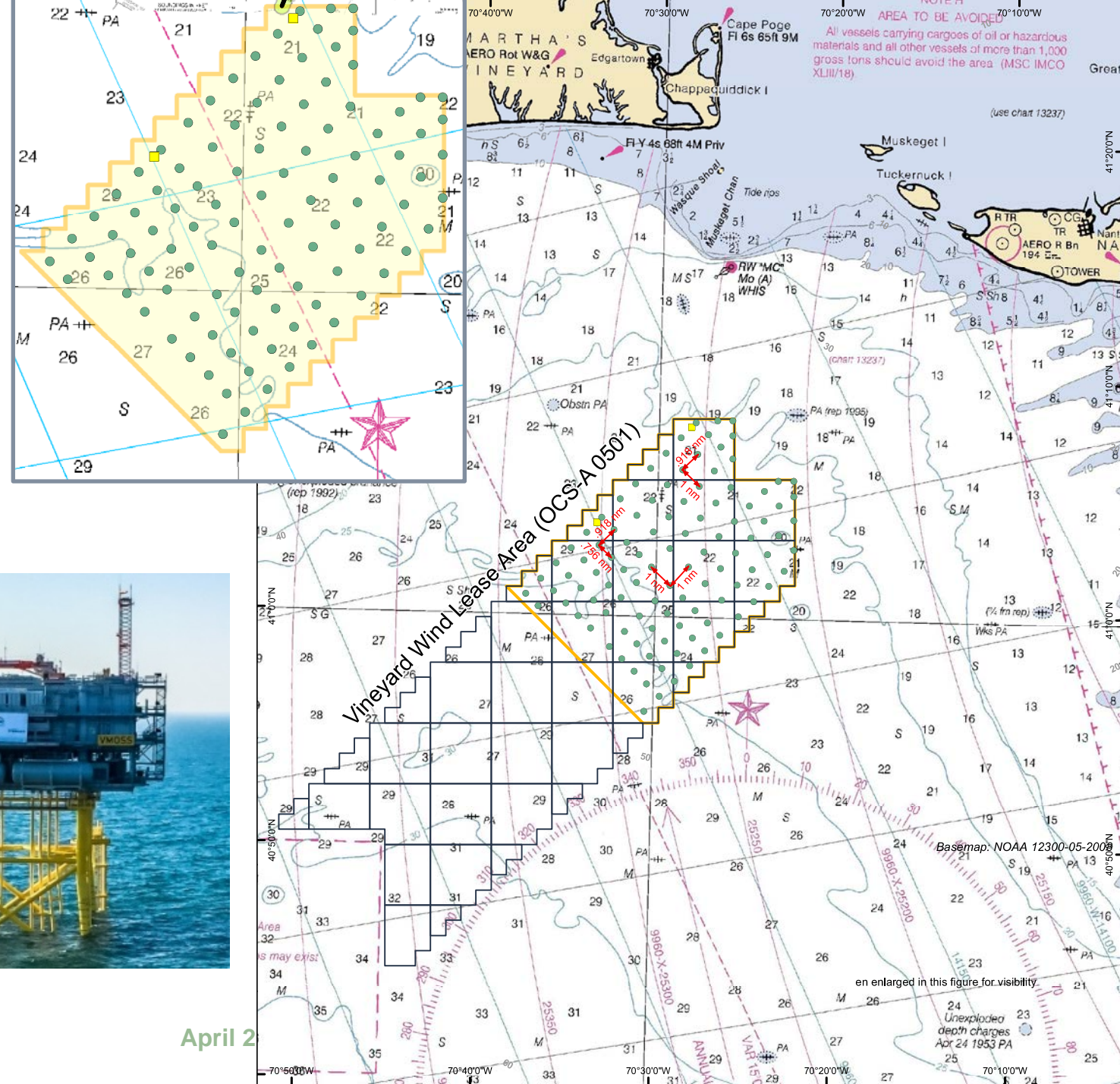
PROJECT LAYOUT

Turbines

- Fixed locations
- Spare locations
- Micro-siting expected
- 106 total (including spares)

Electric Service Platforms (ESP)

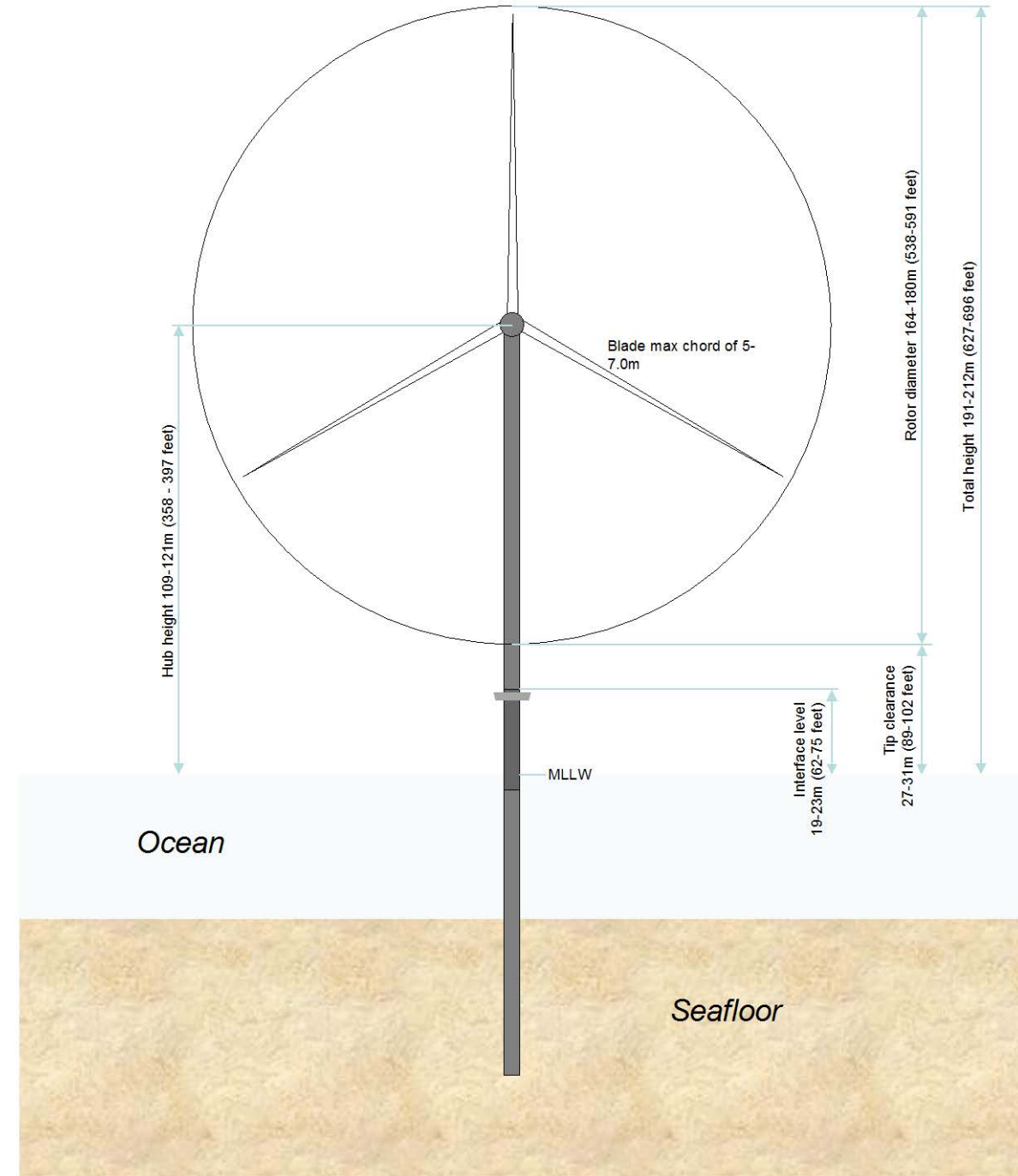
- Per 400 MW:
 - 1 traditional ESP
 - Or two lightweight ESPs
- 2 locations total
- Lightweight ESPs will be co-located



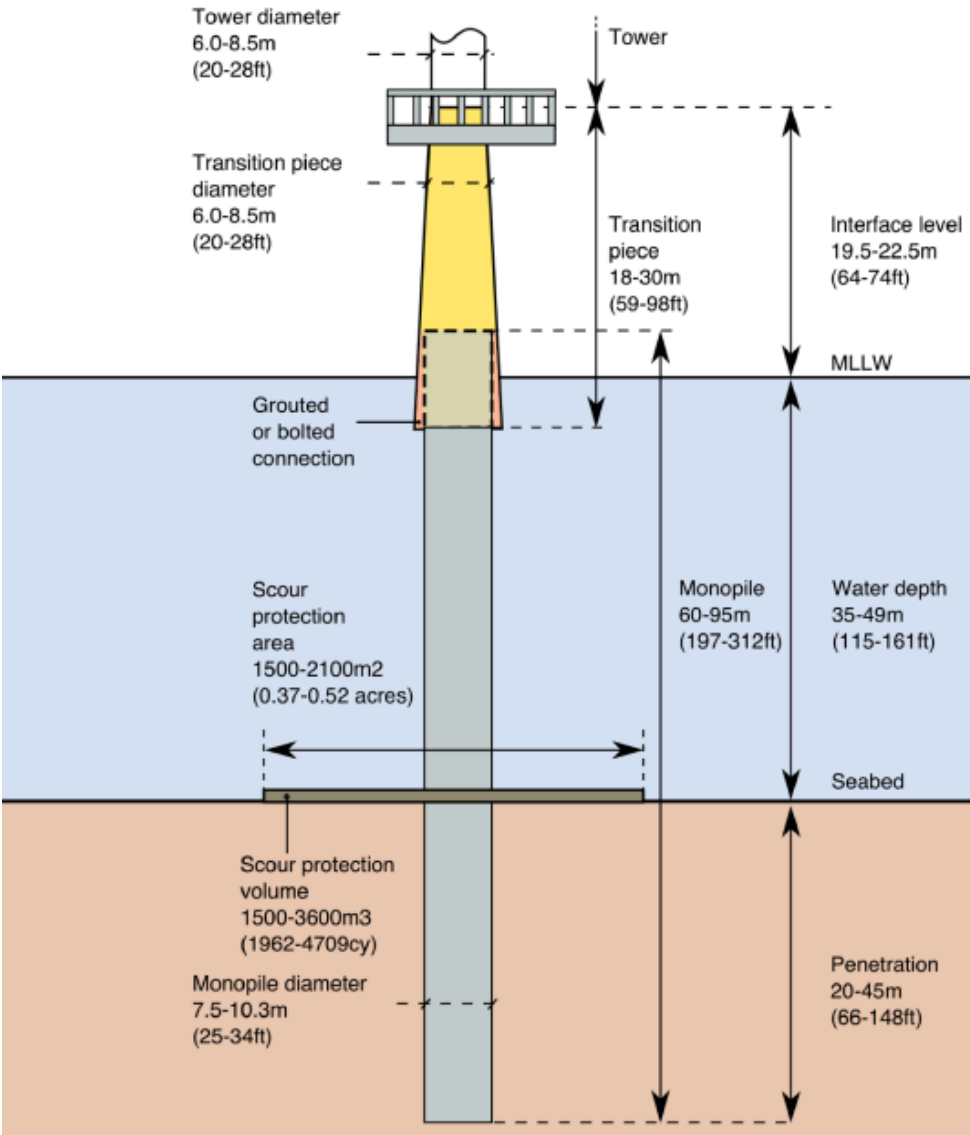
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WIND TURBINE GENERATORS

- 8 – 10MW WTG
- Rotor size of 164-180 m (538-591 ft)
- Hub height of 109-121 m (358-397 ft)

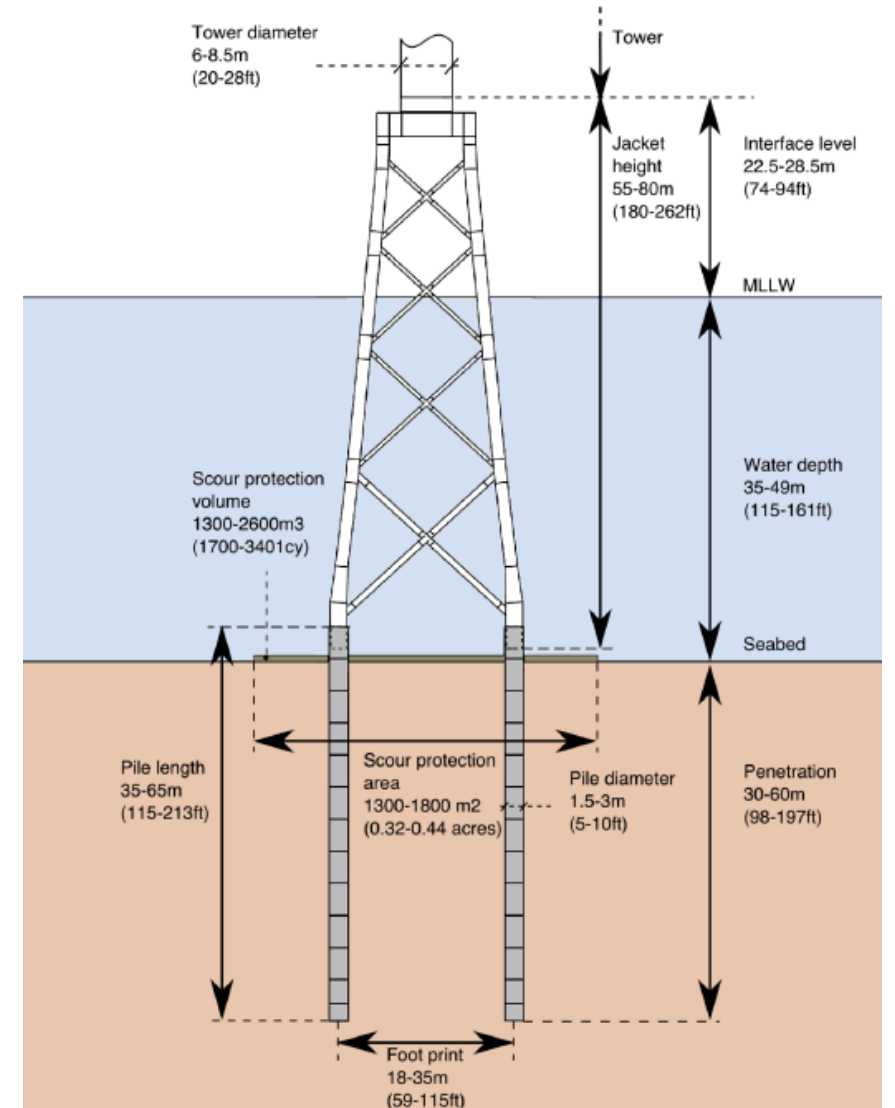


FOUNDATIONS



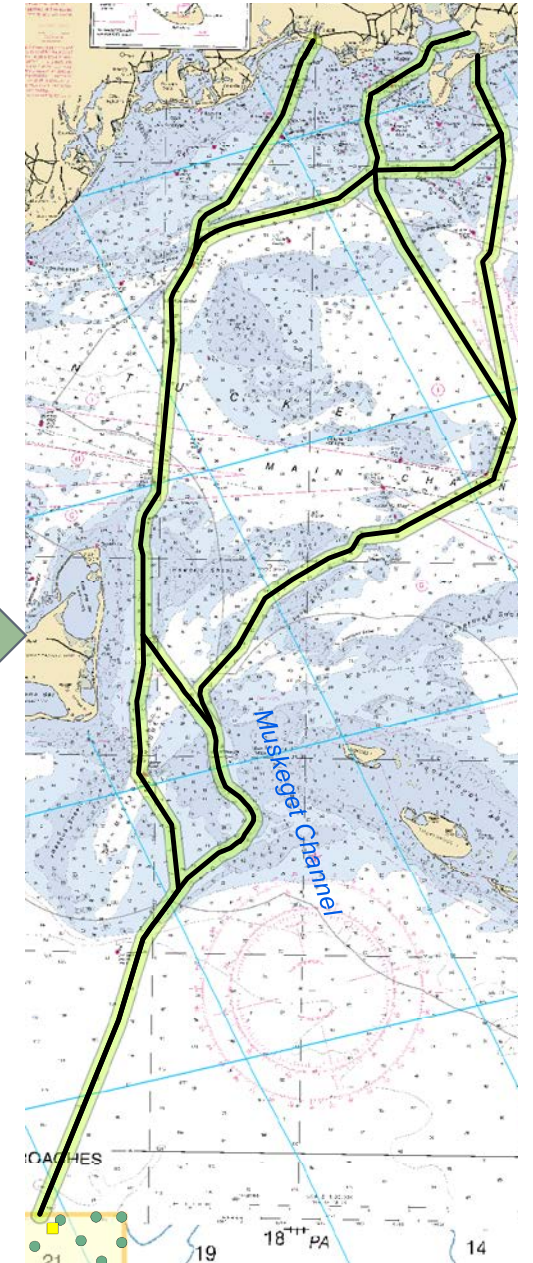
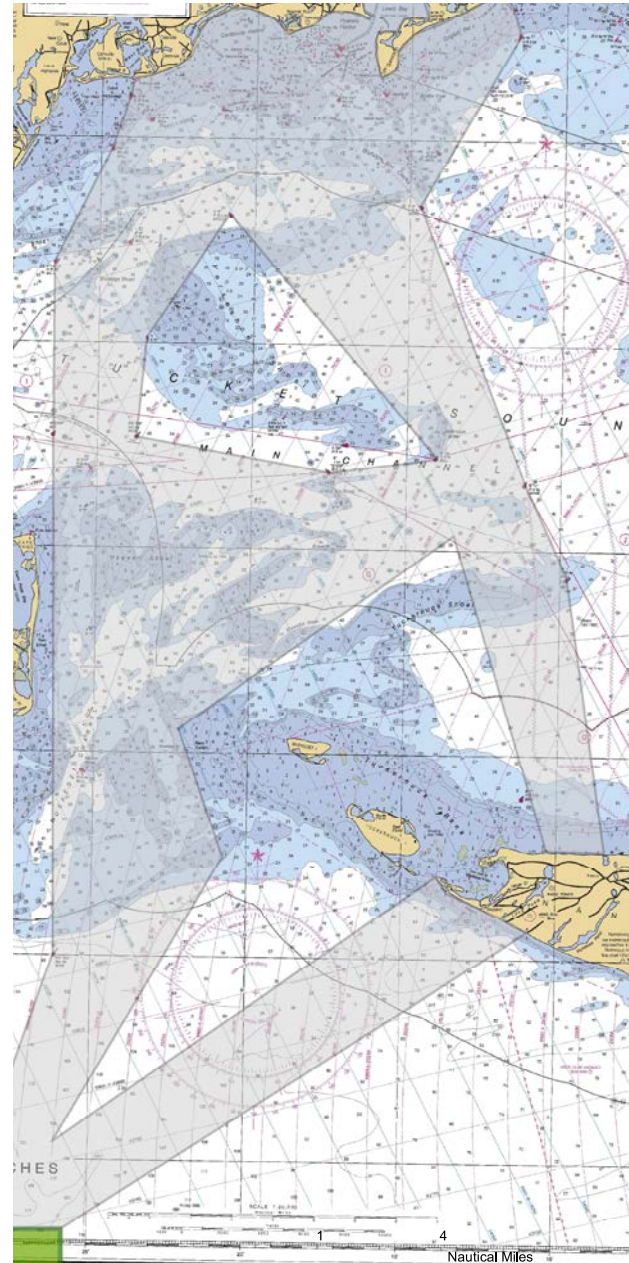
- 100% Monopiles or 50% Monopiles & 50% Jacket
- Scour protection at each location
 - Total footprint in wind farm area 0.4%
- Noise mitigation during pile driving
- Protected marine species (marine mammals & sea turtles)
 - Clear exclusion zone before initiation of pile driving

April 2018



OFFSHORE CABLE CORRIDORS

- Two possible corridors: only one will be used
 - Multiple options through Muskeget Channel
 - Landfall location
 - 2017 & 2018 offshore studies inform selection
- Routing
 - Considerations include water depth, bathymetry, sensitive habitat areas, etc.
 - Avoidance of mapped eelgrass beds
 - Minimization of potential impacts to hard/complex bottom areas
- Installation via jet-plow, plow, or mechanical trenching
 - Up to three cables in single 810m corridor
 - Target burial depth = 5 to 8 feet (1.5 to 2.5 m)
 - 6-foot-wide swath affected by trenching
 - Where sand waves are present, dredging will be used to achieve target burial depth



ONSHORE CABLE ROUTE OPTIONS

- **Preferred Route and Good Alternative**
 - Variants also under consideration
- **Cables entirely underground**
 - Installed in concrete duct bank
 - Predominantly beneath existing roadways
 - Some existing railroad and utility ROW
 - No mapped rare species habitat
 - Only inland wetland resource areas are Land Subject to Coastal Storm Flowage and Riverfront Area
 - Installed via open trenching
 - Possible HDD at cable landfall
- **Onshore substation:**
 - Stepdown (220/115 kV) transformers
 - Located immediately south of existing substation in industrial park
 - No rare species habitat or wetlands
 - Full dielectric fluid containment



CONSTRUCTION AND OPERATIONS PLAN (COP) CONTENTS

VOLUME I	VOLUME II	VOLUME III
<p>Project Description</p> <ul style="list-style-type: none"> • Overview • Location • Structures • Activities (Installation) • Regulatory Framework • Agency Contacts and Stakeholder Coordination <p>Appendices</p> <ul style="list-style-type: none"> • Draft Oil Spill Response Plan • Draft Safety Management System • CVA Statement of Qualifications • CVA Scope of Work • Hierarchy of Standards 	<p>Survey Results</p> <ul style="list-style-type: none"> • Site Geology and Environmental Conditions • Shallow Hazards Assessment • Geological Results Relevant to Siting and Design • Results of Biological Surveys • Archaeological Resource Report <p>Appendices (Summarized)</p> <ul style="list-style-type: none"> • Geological Survey Results • Benthic Reports • Grab Sample and Grain Size Analysis • Vibracore Analysis 	<p>Impact Assessment and Analysis</p> <ul style="list-style-type: none"> • Applicant Purpose & Need • Project Summary • Project Evolution • Benefits, Impacts, & Mitigation • Physical Resources • Biological Resources • Socioeconomic Resources <p>Appendices (Summarized)</p> <ul style="list-style-type: none"> • Hydrodynamic / Sediment Dispersion • Air Emissions • Avian & EFH • Benthic Monitoring Plan • Fisheries Communication Plan • Archaeology and Visual Reports • Marine and Air Navigation Reports • Scour

CONSULTATIONS ON-GOING

- Federal, state, local, agencies
- Tribal
- Fishermen
- Environmental advocacy organizations
- Local towns
- Homeowners / abutters
- Direct public engagement (e.g. open houses, office hours)



THANK YOU

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For the latest project information and document access please visit:

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Fishermen can reach us at:

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ON-GOING FISHERIES CONSULTATIONS I: ACTIONS ALREADY TAKEN

- Align turbines (grid pattern) to facilitate transit
 - As opposed to random layout which produces more power
- 1nm transit corridors NW/SE
- Add Loran lines to all project charts (included in COP)
- Include AIS on all turbines
- Provide electronic chart of lease area for plotters
- Pre, during, and post construction studies
 - Agreement with SMAST to decide what to study (using expert/scientist input) and carry out study
 - Collecting recommendations for study (e.g. rock box and squid mops)
 - Make data public
- Input to Fisheries Communication Plan (current version always available on vineyardwind.com)
 - Implement a way to test how the communication is working
 - Plan for additional communication with recreational fishing
 - Communicate more through the Management Councils (and various subgroups)
 - Look for multiple avenues to reach fishermen
 - Ensure we reach both state and federally permitted fisheries
 - Continue to address and refine *how* each of the goals will be implemented and flexible to address feedback
 - Further development to add in details as communications, permitting, and construction plans evolve
- Input regarding better notification of survey work (also helps for construction communications and learning what works and what doesn't):
 - Fliers
 - Email lists (e.g. DMF, NMFS, RIDEM)
 - Newspaper ads
 - Meetings
 - Notification to fishing organizations (to reach membership)
 - Physical mailings
 - Electronic ads on frequently visited websites (e.g. fisherynation.com)
 - USCG Notice to Mariners
 - Special, continuously updated section of website