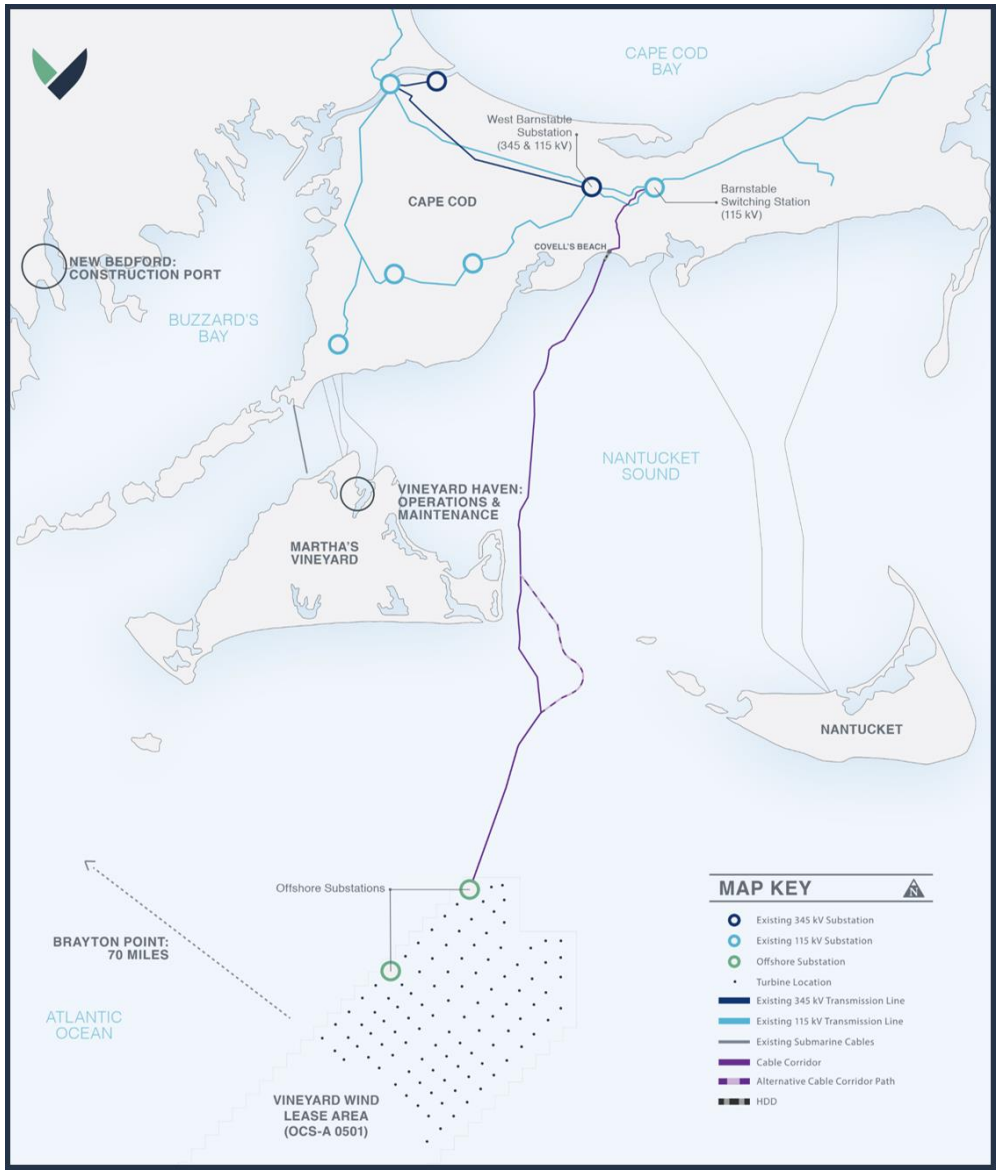
OCS-A
0501

MASS
USA

VINEYARD WIND

PROJECT OVERVIEW



Generation Capacity: 800 MW

Enough energy for over 400,000 homes and businesses

Turbine area: 14 miles from Martha's Vineyard and Nantucket

Turbines: 9.5 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

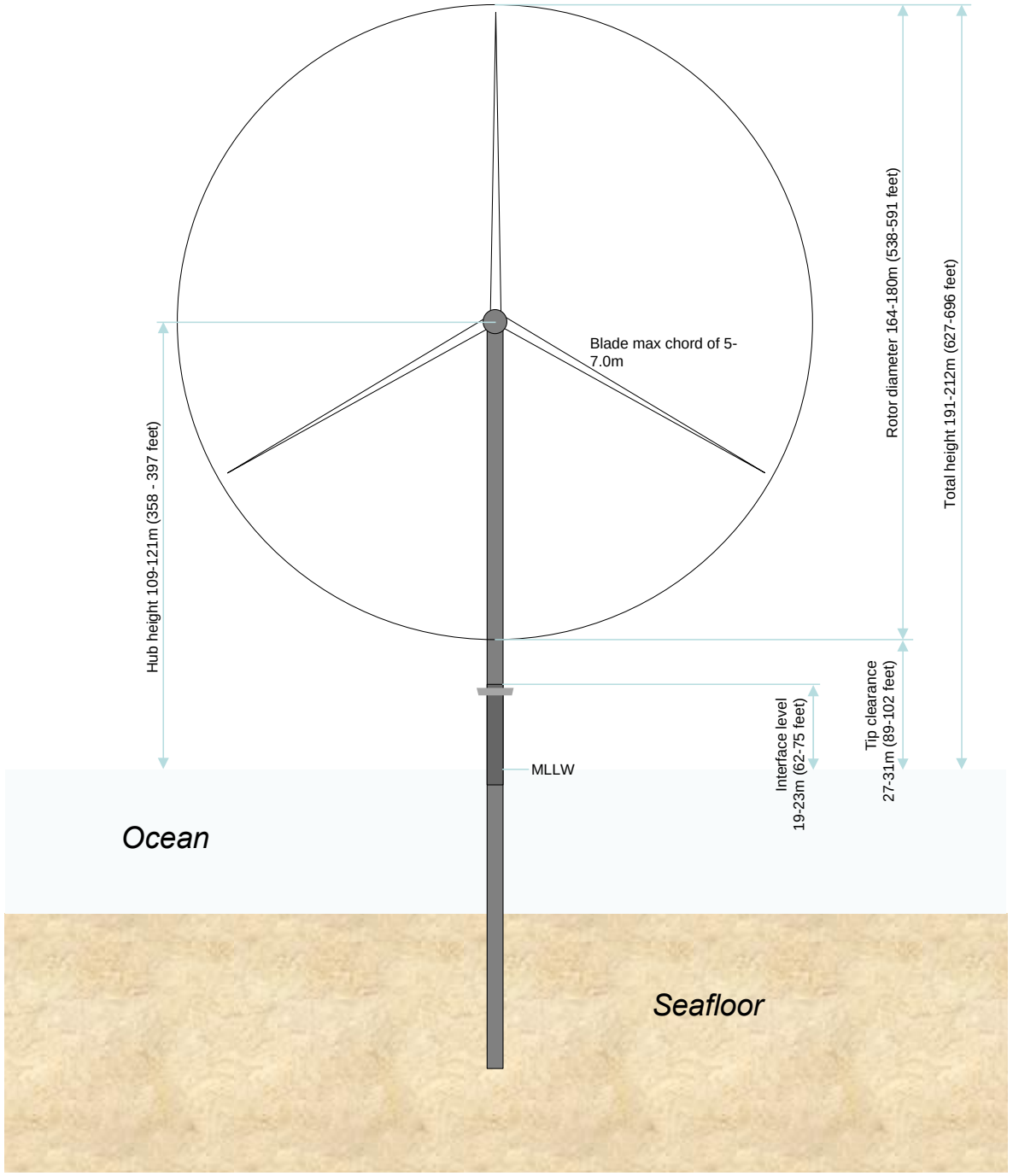
Electrical interconnection: Barnstable Switch Substation

Cable landfall in Barnstable

Two export cables

WIND TURBINE GENERATORS

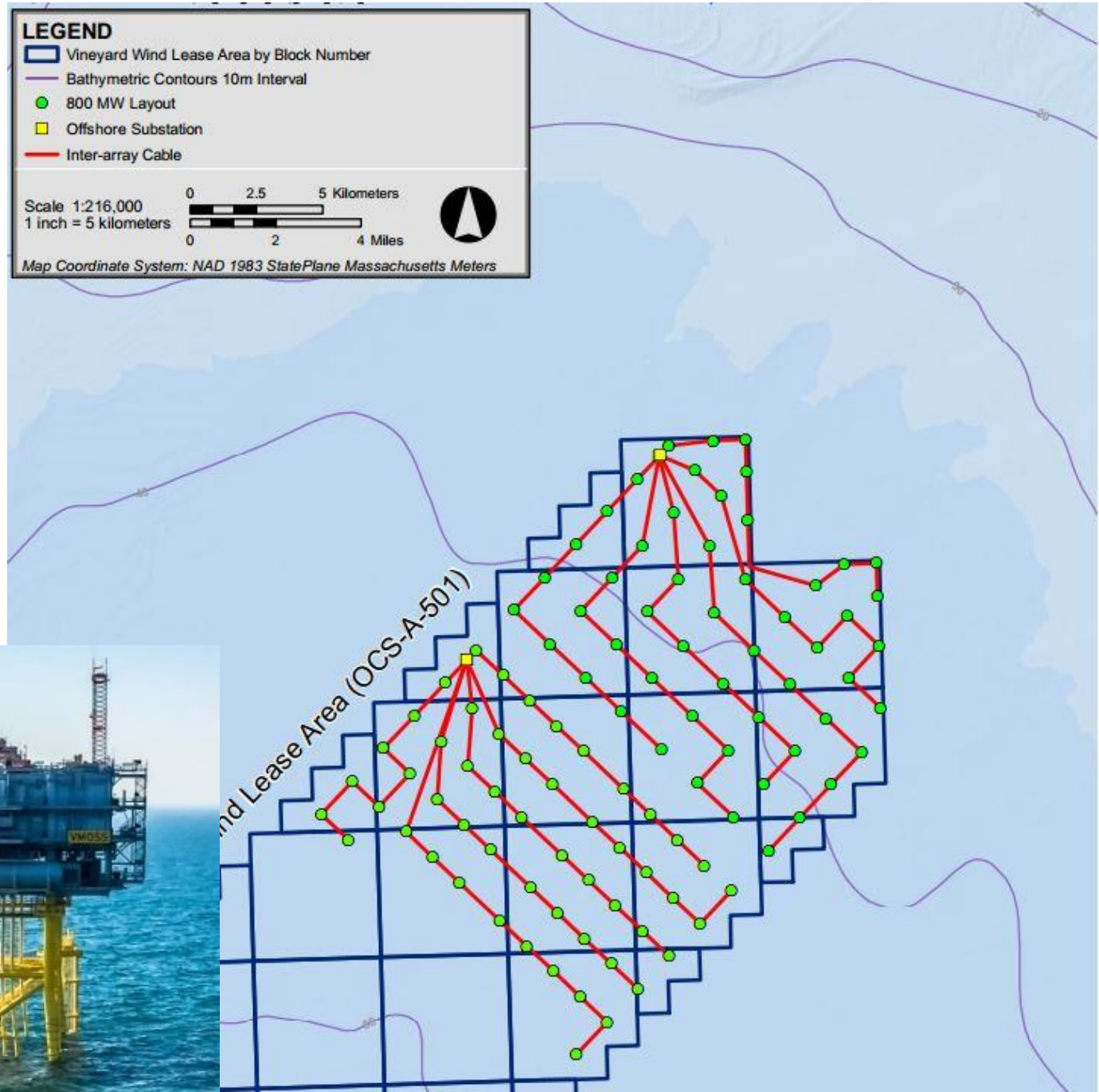
- Rotor size of 164-180 m (538-591 ft)
- Hub height of 109-121 m (358-397 ft)



VINEYARD WIND

INTER-ARRAY CABLES

- Cables will transmit energy from turbines
- Turbines will be connected in series into strings
- Strings will be combined at the ESP
- Project design accommodating navigation and fisheries considerations are ongoing

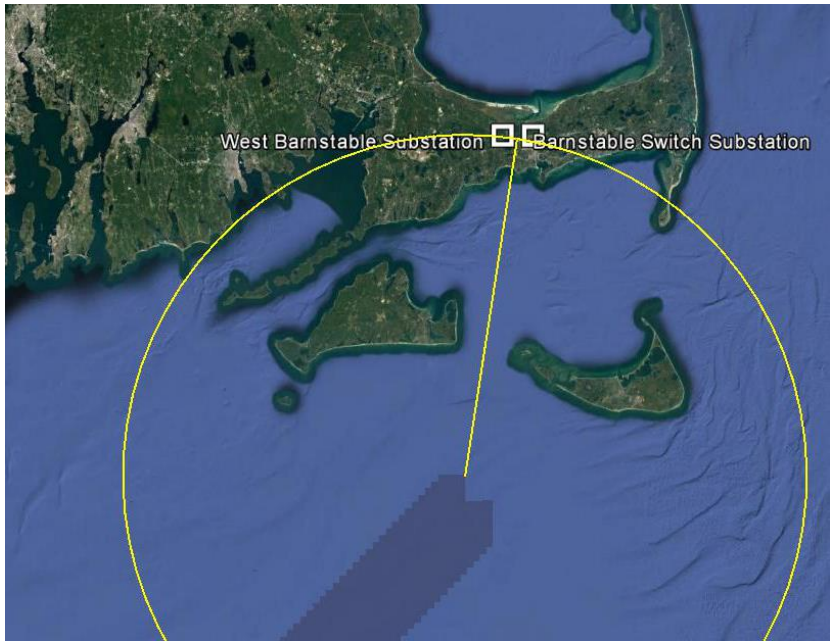


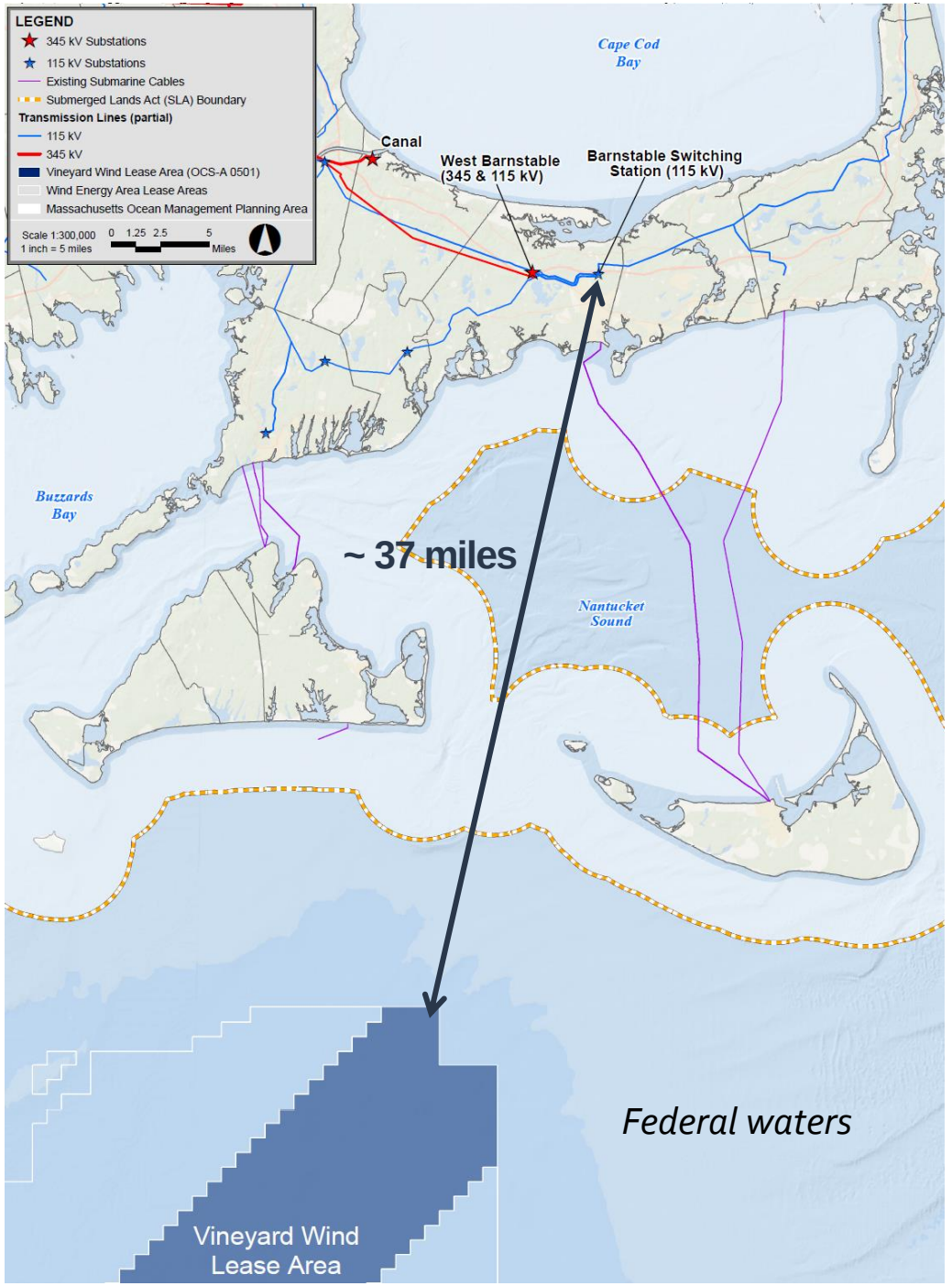
Electric Service Platforms (ESP)

VINEYARD WIND

GRID CONNECTION

- Nearest suitable existing substations are in Barnstable
- Minimizes amount of cable installed
- No changes to existing transmission system will be required
- Connection location enhances grid reliability by providing power at edge of grid system





PROJECT BENEFITS

Reduced Emissions

- Reduction of ISO NE CO_2 emissions by approximately **1,630,000 tons per year (tpy)**
- Equivalent of removing approximately **325,000 automobiles**
- Reduces nitrogen oxides (NOx) emissions across the New England grid by **~1,050 tpy**
- SO_2 emissions by **860 tpy**

Reduced Electricity Costs

- Total net savings **~$1.4 billion** to electricity customers over the life of the contract
- Total energy economic benefits of **~$3.7 billion**

Peak generation coincides with peak heating (natural gas usage)

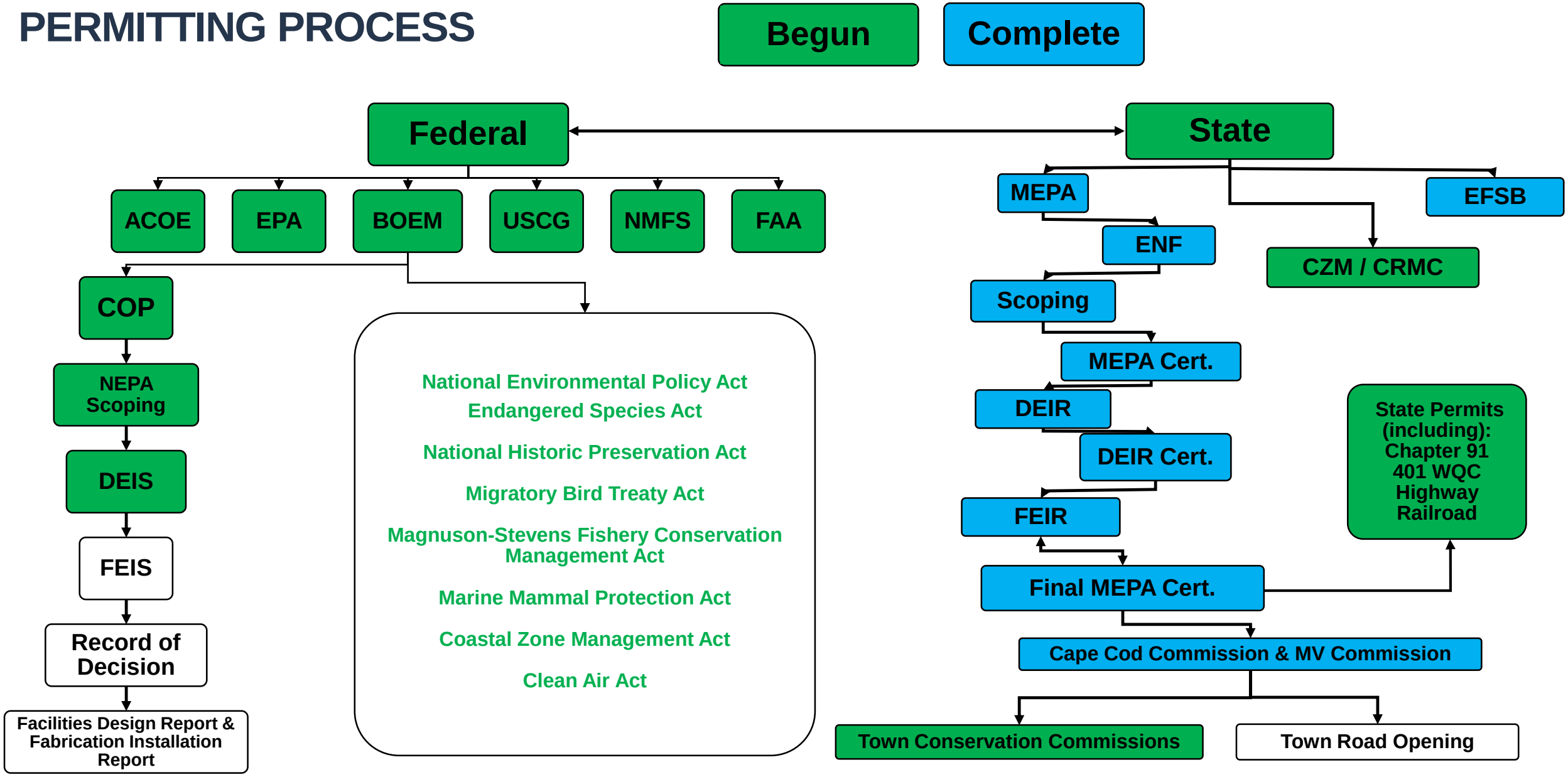
- Reduces use of dirtiest "peaker" plants
- Reduces price spikes resulting from natural gas supply constraints

Sets stage for rapid, large scale deployment of offshore wind

Centers offshore wind industry in southern New England

- Large project attracting European companies to region
- 3600 jobs for this first project

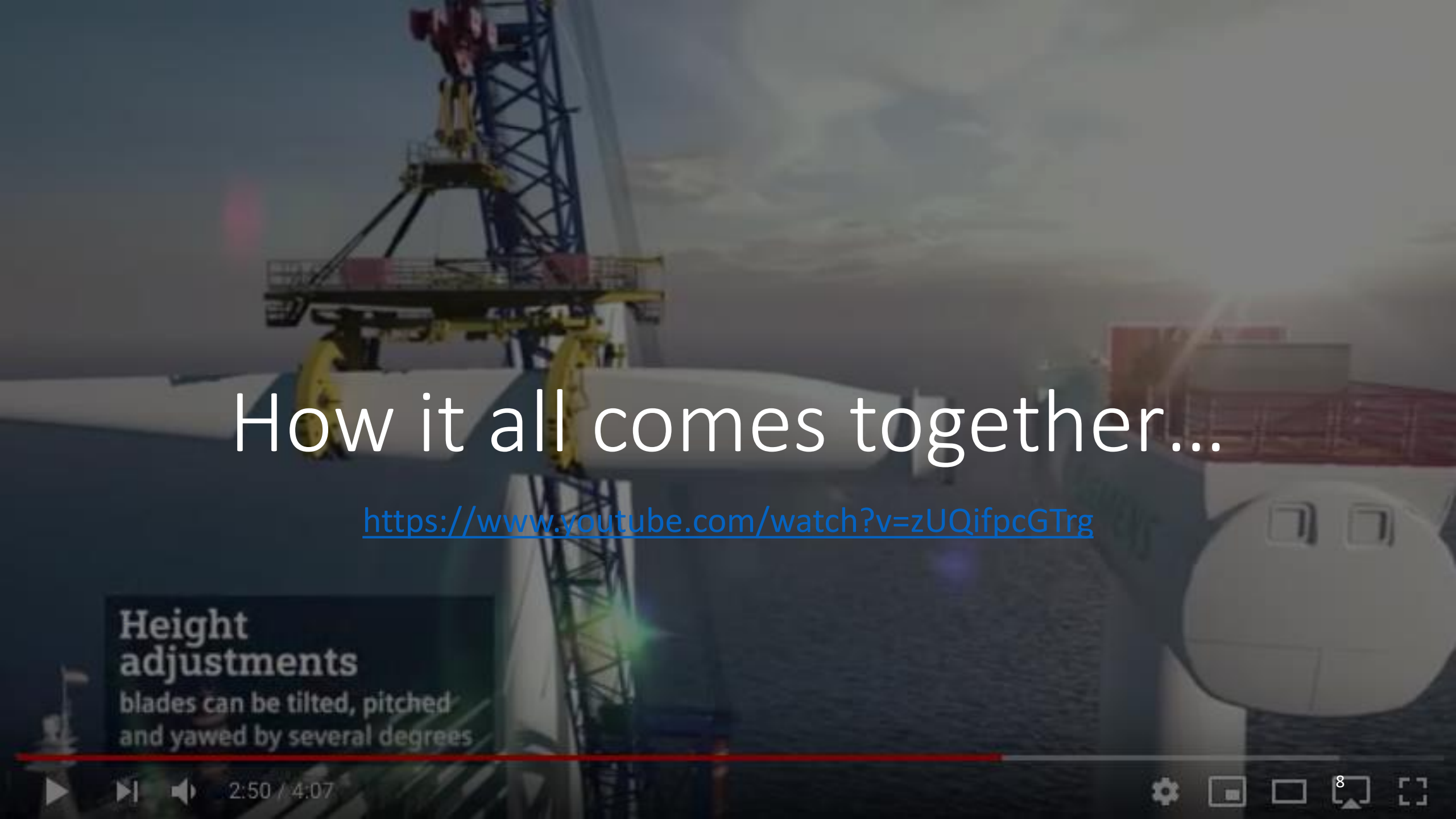
PERMITTING PROCESS



VINEYARD WIND

How it all comes together…

https://www.youtube.com/watch?v=zUQifpcGTrg



CAREERS

- Business Management and Accounting
- Communications
- Environmental Planning
- Public Affairs
- Public Policy
- Municipal Government
- Legal
- Project Management
- Marine Science
- Fisheries
- Coastal Ecology

CAREERS

- Electrical Engineering
- Civil Engineering
- Structural Engineering
- Geology
- Port Design and Operations
- Construction Management
- Marine Engineering
- Health and Safety
- Logistics
- GIS

QUESTIONS?

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