



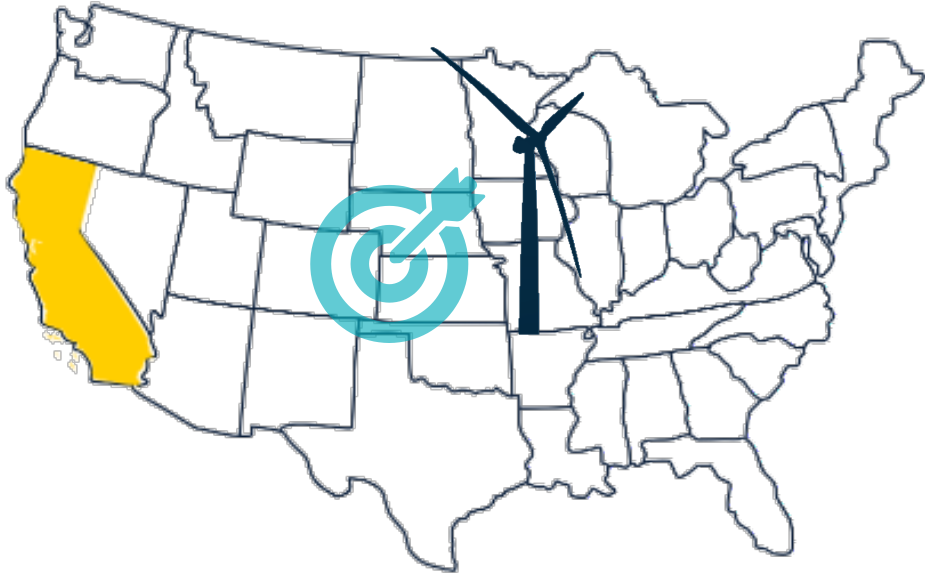
PIER WIND CONCEPT

SEAN GAMETTE, P.E.

MANAGING DIRECTOR, ENGINEERING SERVICES BUREAU

CMANC
MAY 18, 2023

KEY GOVERNMENT ACTIONS



UNITED STATES

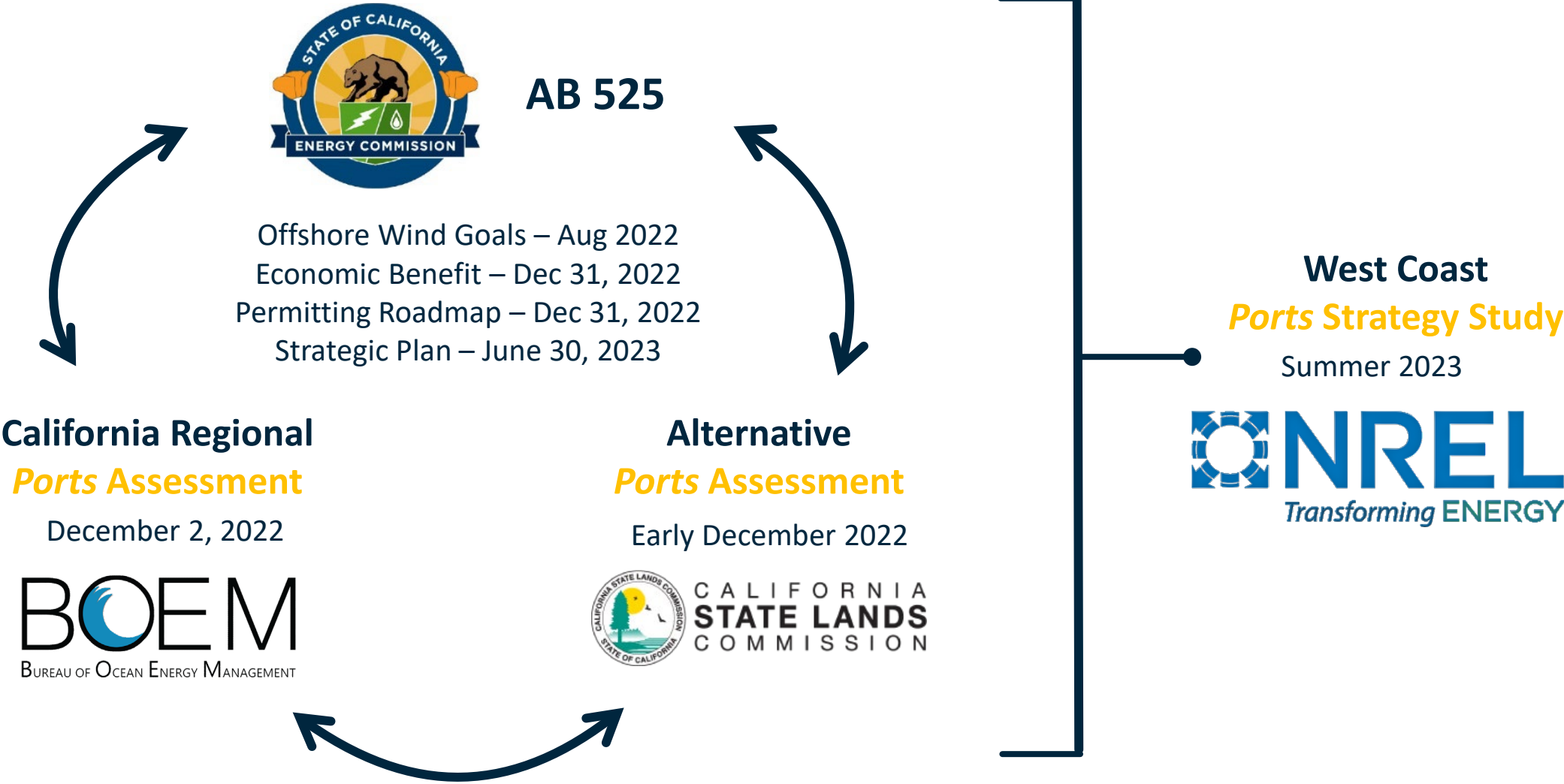
- Jan 2021 – Executive Order on Tackling the Climate Crisis
- Mar 2021 – 30 GW offshore by 2030
- Sep 2022 – 15 GW floating offshore by 2035

CALIFORNIA

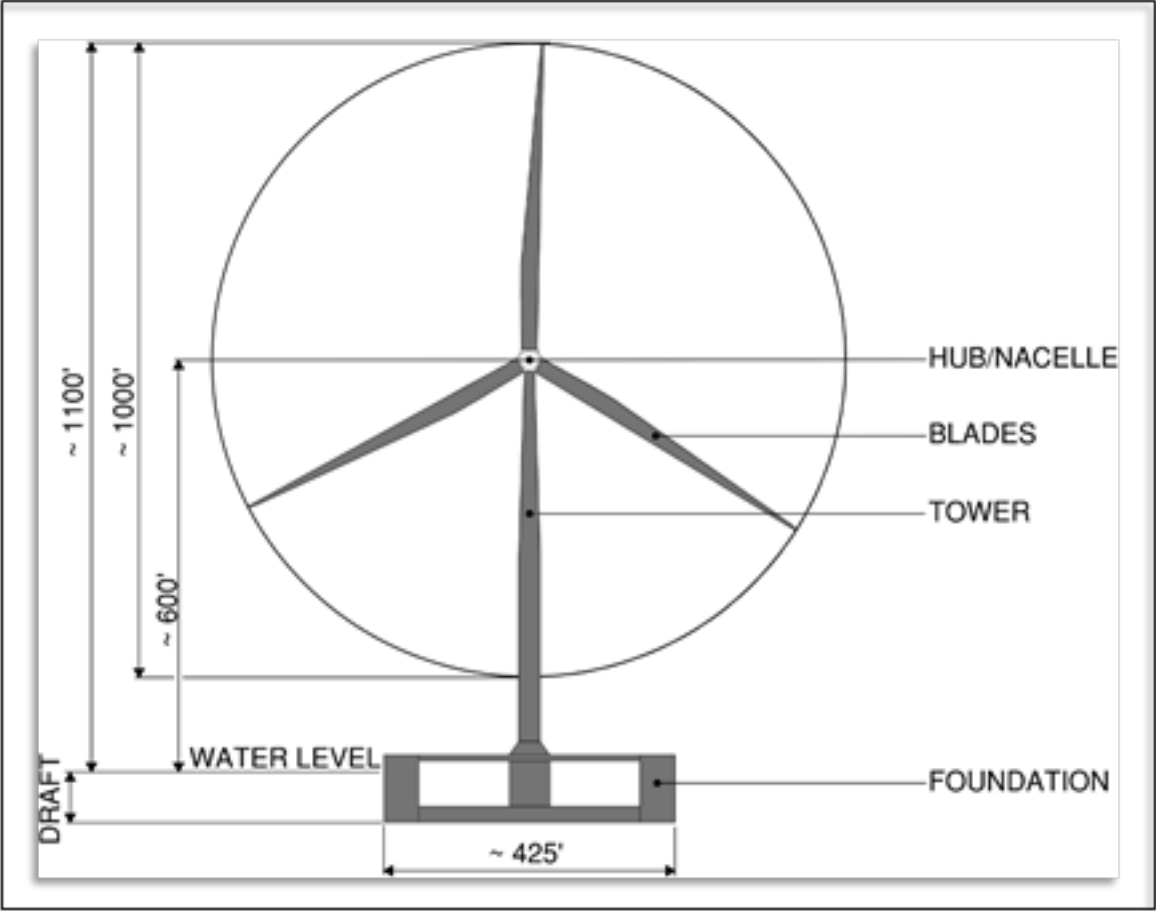
- Sep 2018 – SB 100 – 100 Percent Clean Energy Act
- Sep 2021 – AB 525 – Strategic Plan for Offshore Wind



WHOLE OF GOVERNMENT APPROACH



PLANNING FOR FUTURE INNOVATION



FLOATING OFFSHORE WIND TURBINE	APPROXIMATE DIMENSION
Foundation Beam / Width	Up to 425 ft x 425 ft
Foundation Draft (Before Integration)	15 – 25 ft
Foundation Draft (After integration)	20 – 50 ft
Hub/Nacelle Height (from Water Level)	Up to 600 ft
Tip Height (from Water Level)	Up to 1,100 ft
Rotor Diameter	Up to 1,000 ft

Source: BOEM OCS Study 2022-073

20-25 MW FLOATING OFFSHORE WIND TURBINE SYSTEM DIMENSIONS



NACELLES

Source: Vestas



TOWER

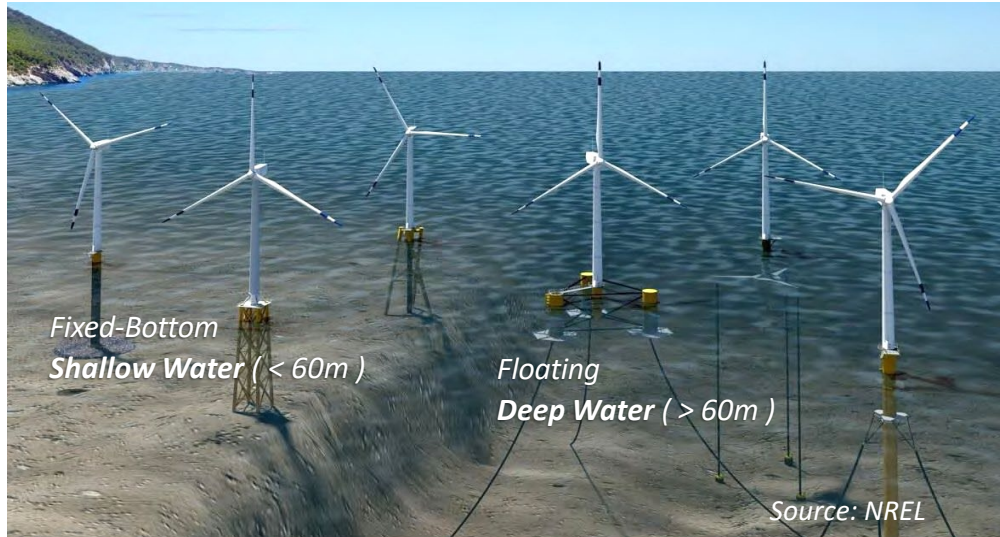
Source: Steelwind Nordenham



BLADE

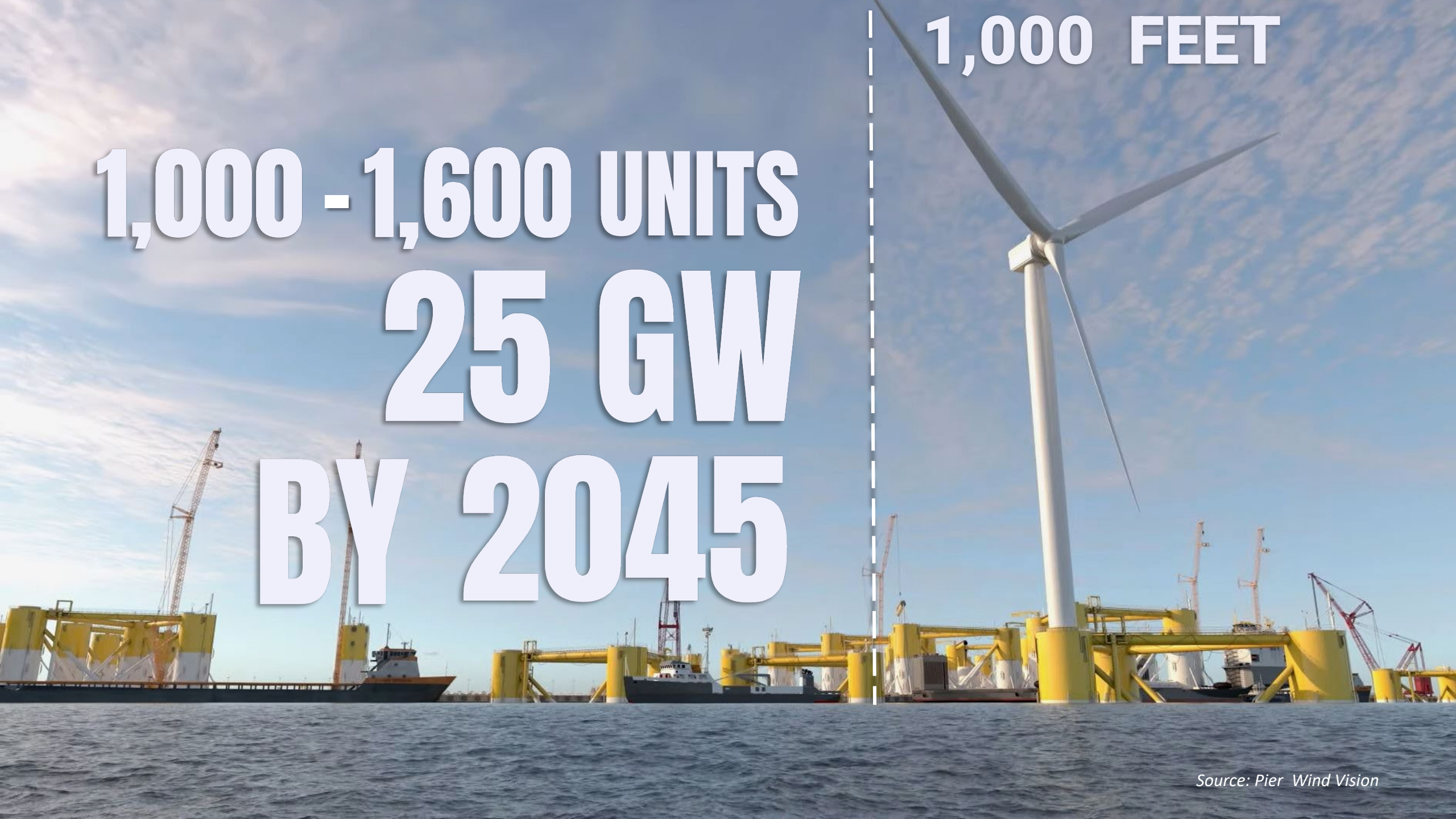
Source: LM Wind Power

FLOATING TURBINE INTEGRATION



**1,000 - 1,600 UNITS
25 GW
BY 2045**

1,000 FEET



Source: Pier Wind Vision



Port of
LONG BEACH
THE GREEN PORT

HARBOR DISTRICT

HOW CAN THE PORT OF LONG BEACH HELP SUPPORT?

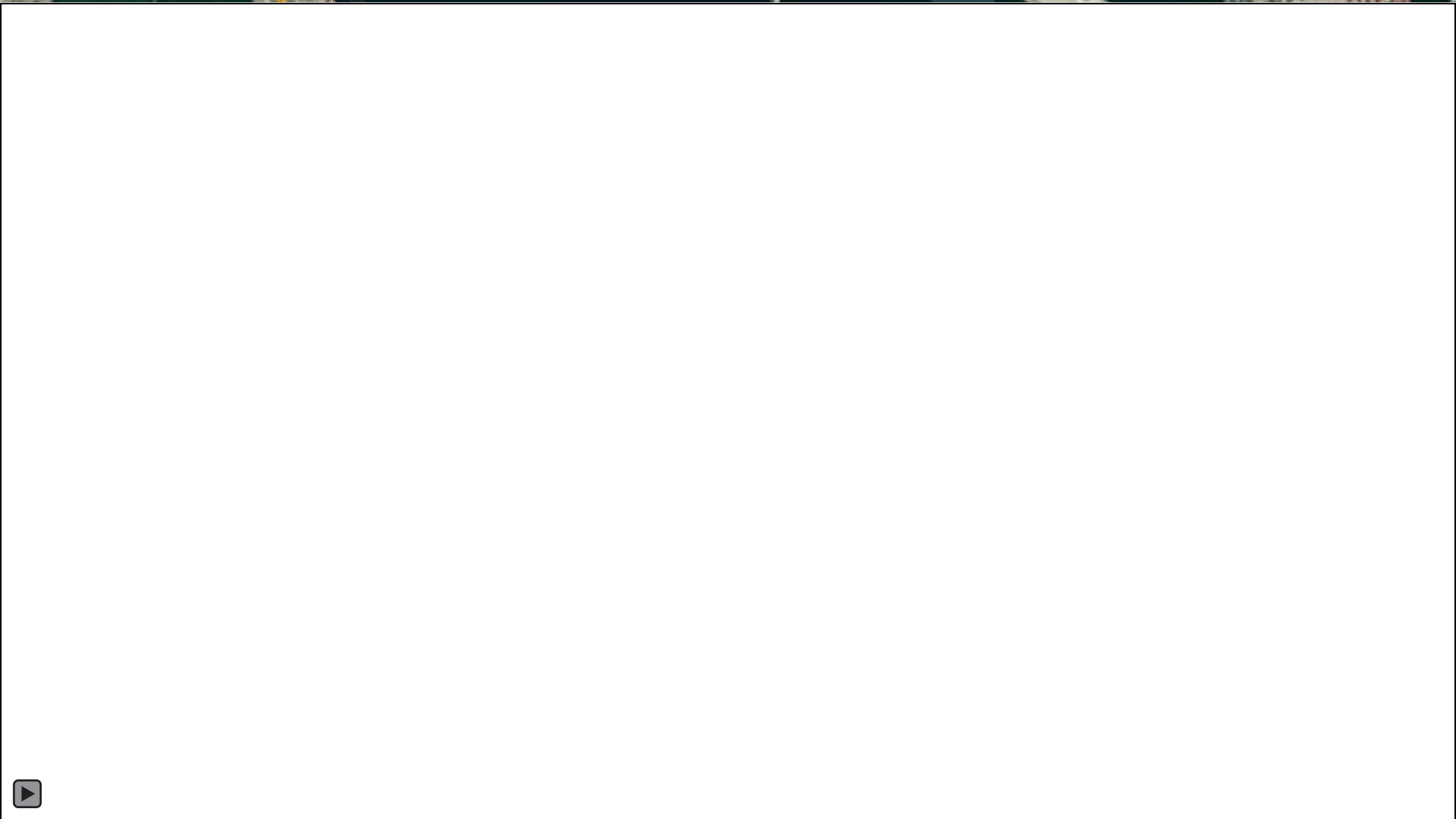
**NO AIR HEIGHT
RESTRICTIONS**

1500 ACRES
-40' to -70'
DEEP

MAIN CHANNEL

*COMPLETED
CONCEPT REPORT IN
5 MONTHS*





FLEXIBLE, ADAPTABLE



**STAGING AND
INTEGRATION**

**FOUNDATION
ASSEMBLY**

**STAGING AND
INTEGRATION**

**FOUNDATION
ASSEMBLY**

**BLADE
MANUFACTURING**

400 ACRES

80 ACRES

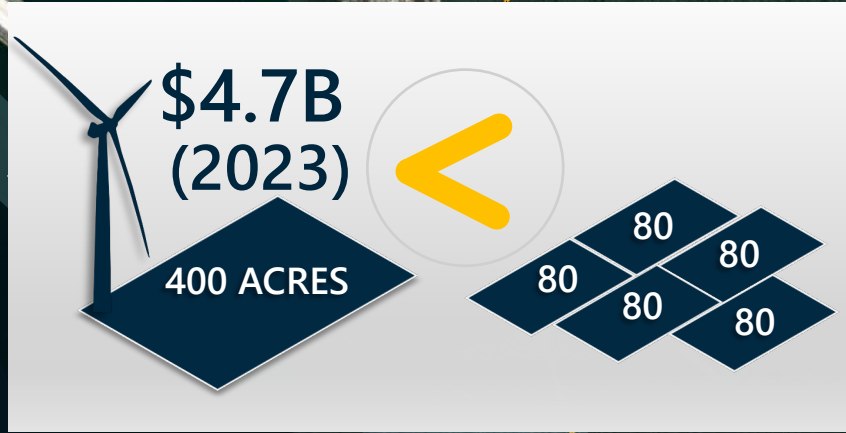
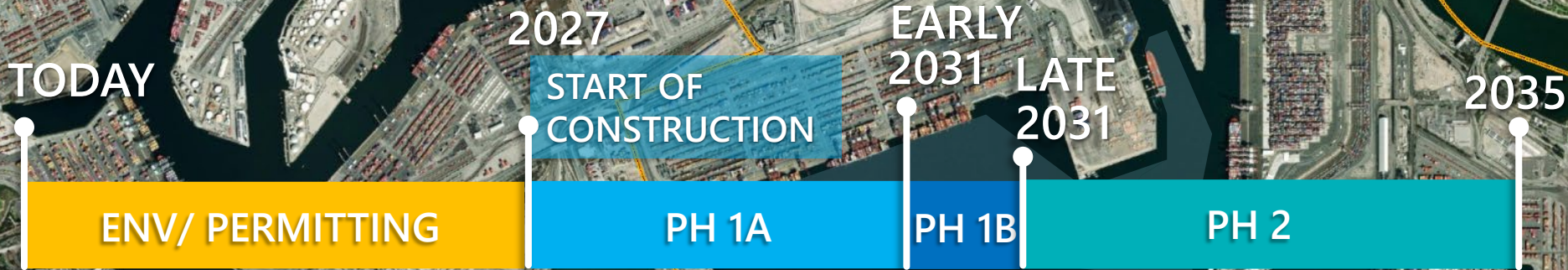
80 ACRES

80 ACRES

80 ACRES

80 ACRES

SCHEDULE AND COST



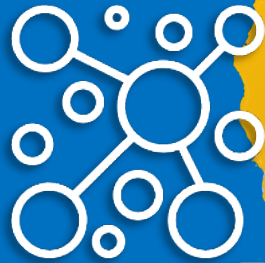
ECONOMIC BENEFIT

\$39.7 billion total state GDP
construction + **\$7.9** billion O&M

(NREL/BOEM 16 GW scenario)

17,500 full-time **CA** jobs
in **2045** using cluster-based
strategies

(The American Jobs Project, 18 GW scenario)



*AB525: Preliminary Assessment of Economic
Benefits of Offshore Wind*





Port of
LONG BEACH
THE GREEN PORT

