

DOCKETED

Docket Number:	17-MISC-01
Project Title:	California Offshore Renewable Energy
TN #:	246362
Document Title:	Presentation - BOEM-Funded California Regional Ports Assessments
Description:	Presentation from the SLC "California Port Studies" for the Oct 6, 2022 CEC AB 525 Staff Workshop
Filer:	susan fleming
Organization:	State Lands Commission
Submitter Role:	Public Agency
Submission Date:	10/5/2022 4:40:04 PM
Docketed Date:	10/5/2022

Basis of Analysis: 10.6.22 Update

- Initial outreach to 17 ports to determine how many port sites are required to meet AB 525 deployment targets (low, med, high)—sites ranked
- Assess physical, operational, and regulatory capabilities and constraints of port facilities and infrastructure and potential port infrastructure upgrades
- Draft Report 11/4, Final Report 12/2

Year	Target Deployment				
	Low		Medium		High
Rate	0.5 GW/yr	1 GW/yr	1.5 GW/yr	2 GW/yr	2.5 GW/yr
2030	1 GW	2 GW	3 GW	4 GW	5 GW
2035	3.5 GW	7 GW	10.5 GW	14 GW	17.5 GW
2038	5 GW	10 GW	15 GW	20 GW	25 GW
2045	8.5 GW	17 GW	25.5 GW	34 GW	42.5 GW
2048	10 GW	20 GW	30 GW	40 GW	50 GW
2050	11 GW	23 GW	33 GW	44 GW	55 GW

Activities Considered:

- Staging and Integration Facility (S&I)
- Operations and Maintenance Facility (O&M)
- Construction Support Facility
- Manufacturing / Fabrication Site (MF)



Deployment Targets

› Step 1: Determine Deployment Targets

- Determine low, medium, high GW rates for 2030 and 2045
- This is the demand that the OSW industry and ports would have to meet
- Additional sources of deployment goals:
 - › **Governor Newsom's Letter to CARB (July 2022):**
 - 20 GW by 2045
 - › **CEC Updated AB 525 Report (August 2022):**
 - 2–5 GW by 2030
 - 25 GW by 2045
- **Takeaway** – BOEM TO2 GW deployment targets are generally in line with other published GW goals

Year	Target Deployment				
	Low		Medium	High	
Rate	0.5 GW/yr	1 GW/yr	1.5 GW/yr	2 GW/yr	2.5 GW/yr
2030	1 GW	2 GW	3 GW	4 GW	5 GW
2035	3.5 GW	7 GW	10.5 GW	14 GW	17.5 GW
2038	5 GW	10 GW	15 GW	20 GW	25 GW
2045	8.5 GW	17 GW	25.5 GW	34 GW	42.5 GW
2048	10 GW	20 GW	30 GW	40 GW	50 GW
2050	11 GW	23 GW	33 GW	44 GW	55 GW

Port Inventory

› Step 2: Determine Available Port Sites

- Conduct outreach to 17 ports to determine potentially available port sites for OSW development
- Categorize potentially available port sites based on requirements for each site type
 - Staging and Integration
 - Manufacturing / Fabrication
 - Operations & Maintenance
- This is the capacity that existing ports have to meet the state's GW goals / demands

› Step 3: Compare GW goals w/ Available Port Sites

- **Takeaway** - Determine how many port sites are required to meet AB 525 GW deployment targets (low, medium, high) for 2030 and 2045

Floating Offshore Wind Turbine	Approximate Criteria for Staging & Integration	Approximate Criteria for Component Manufacturing	Approximate Criteria for O&M
Acreage, minimum	30 – 100 acres	30 – 100 acres	5 – 10 acres
Wharf Length	1,500 ft	800 ft	300 ft
Minimum Draft at Berth	38 ft	38 ft	20 – 30 ft
Draft at Sinking Basin	40 – 100 ft		
Wharf Loading	> 6,000 psf	Up to 6,000 psf	100 – 500 psf
Uplands / Yard Loading (for WTG components)	> 2,000 – 3,000 psf		





ALTERNATIVE PORT ASSESSMENT

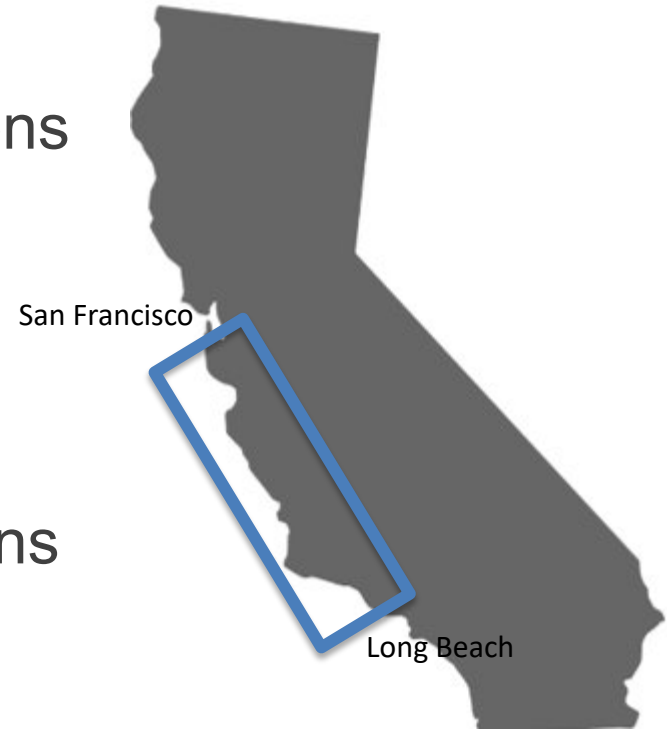
California State Lands Commission

AB 525 Offshore Wind Workshop | Oct 6, 2022



Objectives

- Identify potential waterfront locations between San Francisco and Long Beach to support offshore wind
- Screen and rank potential staging and integration (S&I) and operations and maintenance (O&M) sites for development



S&I Screening Criteria

Step 1: Preliminary Criteria

Exclude:

State Parks
National Forests
CA MPAs
Airspace Restrictions
Military Bases
Residential Areas
Islands

18 Sites



Step 2: Engineering Criteria

Consider:

Water Depth
Natural Coves
Protected Harbor
Prox. To Road/Rail

13 Sites



Step 3: Environmental Criteria

Consider:

Permitting
Marine Fisheries
Aquatic Vegetation
Wetlands
Biological Resources
Tribal Considerations
Environmental Justice

Rank Top 4 Sites

*Includes green and brownfield sites and coastline within the Monterey Bay National Marine Sanctuary

*Criteria listed in tables does not reflect all applicable criteria

O&M Screening Criteria

Step 1: Preliminary Criteria

Include:

Piers
Harbors
Wharfs
Marinas
Co-locating with and
existing large facility

41 Sites



Step 2: Engineering Criteria

Consider:

Wave Protection
Navigable Depth / Width
Current Use
Distance to Morro Bay WEA
(<160 mi)

13 Sites



Step 3: Outreach

Outreach:

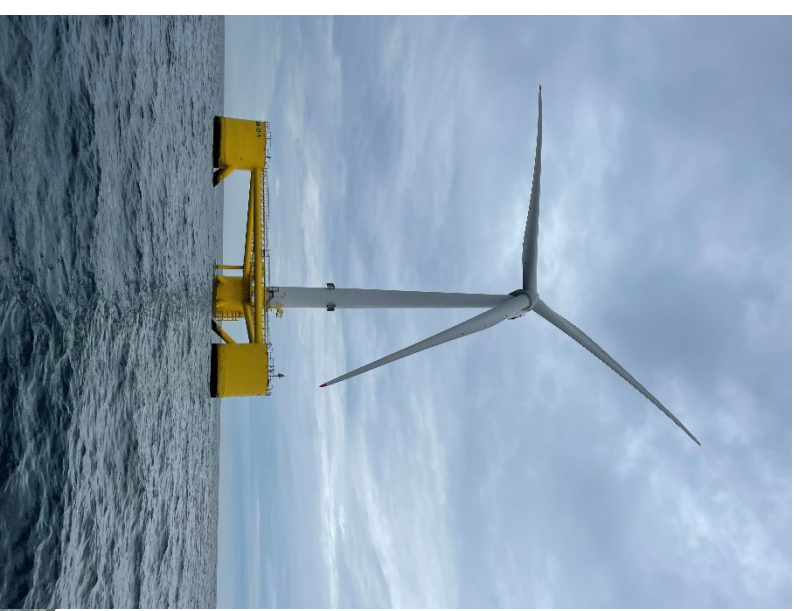
Gauge interest from current
operators

**Rank Top 4 Sites based on
outreach and cost estimates**

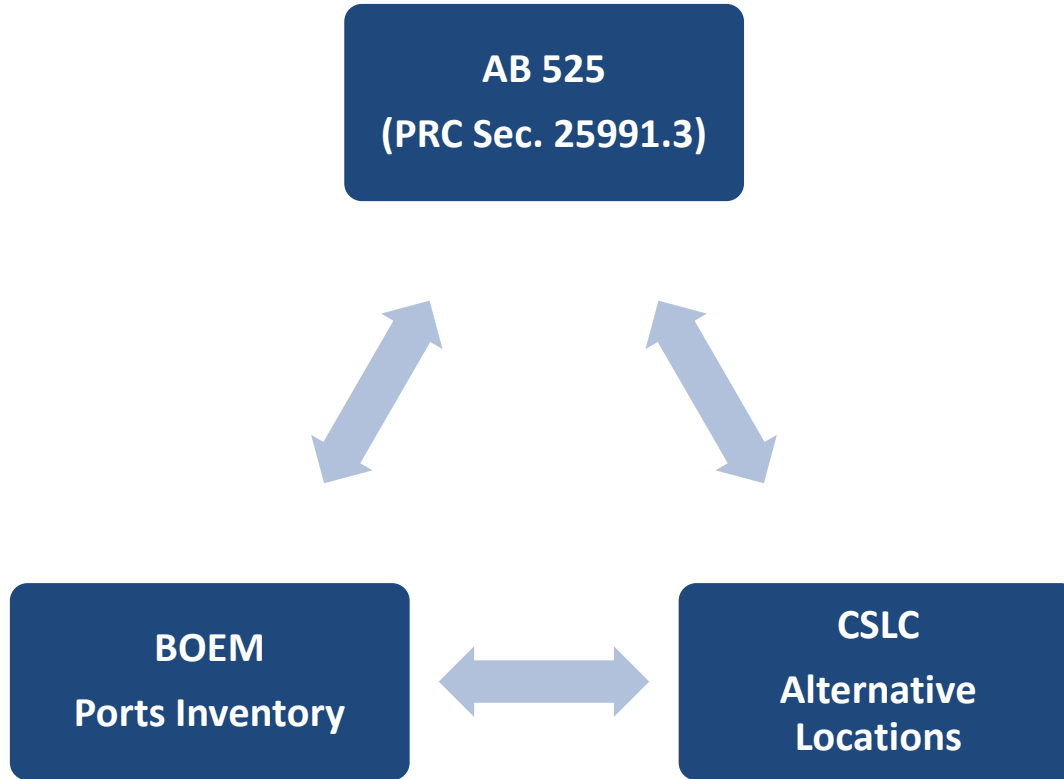
*Criteria listed in tables does not reflect all applicable criteria

Next Steps

- Continue screening for environmental factors for S&I sites
- Continue outreach to potential O&M site owners
- Conduct high-level cost estimates for top 4 sites S&I and O&M Sites
- Final report estimated to be published late November / early December



Conclusion





www.slc.ca.gov

THANK YOU & QUESTIONS

Max Liebergesell, Sea Grant Fellow
Division of Environmental Planning and Management

max.liebergesell@slc.ca.gov

650.346.7591



[@CASStateLands](https://twitter.com/CASStateLands)

California State
Lands Commission

