



PIER WIND TERMINAL DEVELOPMENT

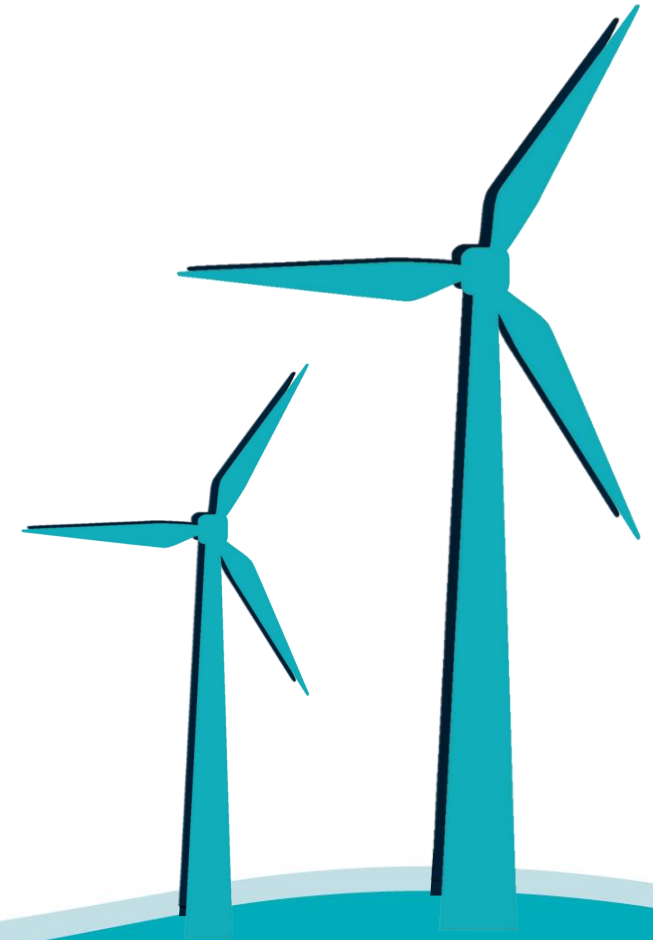
Status Update and California Energy Commission
Grant Opportunity (HD-24-521)

Suzanne Plezia, P.E.
Senior Director, Chief Harbor Engineer

Board of Harbor Commissioners Meeting
November 11, 2024

Today's Agenda

- ✓ Background
- ✓ Status Update
 - ✓ Design Development
 - ✓ CEQA/NEPA/Permitting
 - ✓ Business/Finance/Delivery
 - ✓ Outreach and Engagement
- ✓ CEC Grant Funding Opportunity
- ✓ Preliminary Economic Impact Analysis
- ✓ Moving Forward



Background

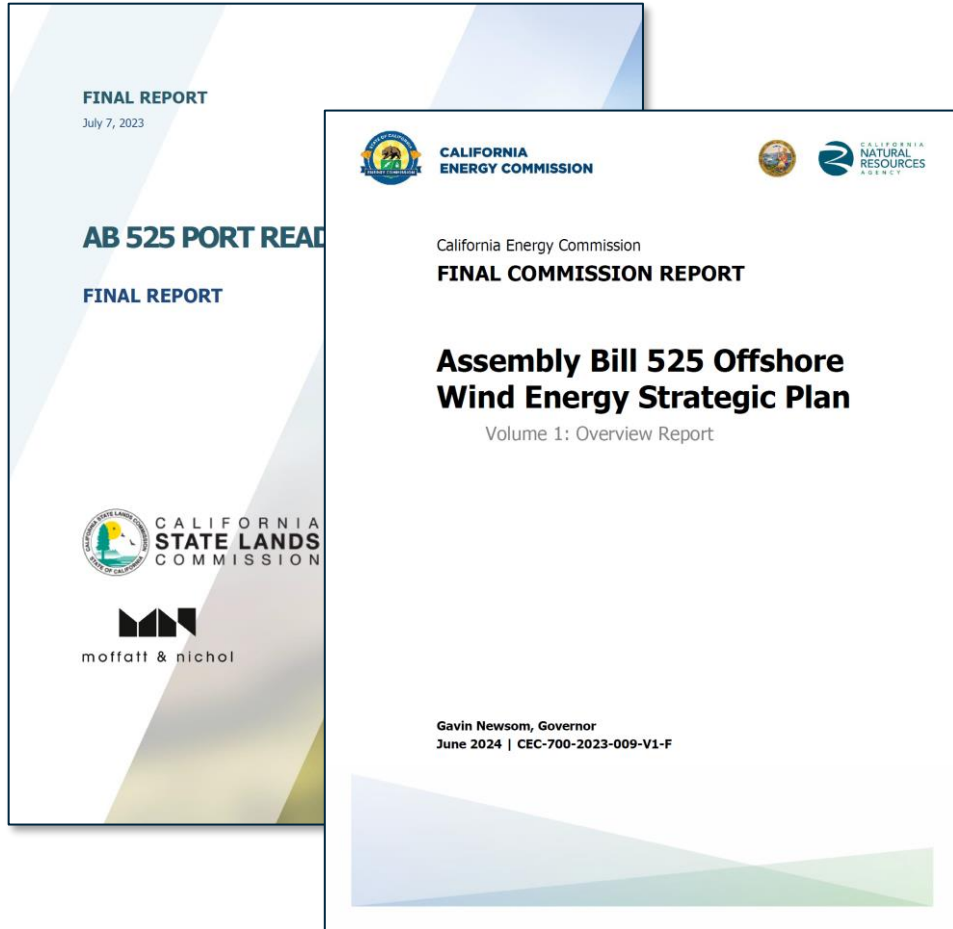
ZERO 
Zero Emissions, Energy Resilient Operations



**CALIFORNIA'S
OFFSHORE WIND
GOALS**

25 GW by 2045

AB 525 Strategic Plan Conclusions



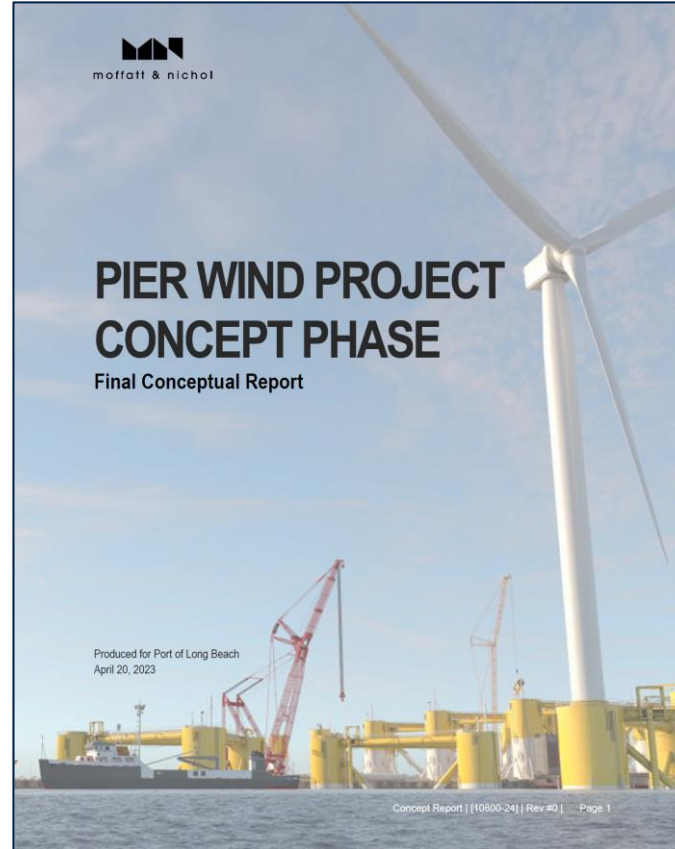
- Need coordinated **multi-port strategy**
- Staging and integration sites **are the most critical**
 - **Essential** for developing offshore wind
 - Require **urgent funding** and **prioritization**
- **Only a few ports** are suitable for staging and integration, including **Port of Long Beach** and **Humboldt Bay**

Sources: [CSLC AB 525 Port Readiness Plan July 7, 2023](#)
[CEC AB 525 Strategic Plan Final Report June 2024](#)

POLB Pier Wind Concept Report

We heard the need
and answered the call.

POLB investment to develop
Concept Report - **\$600k**

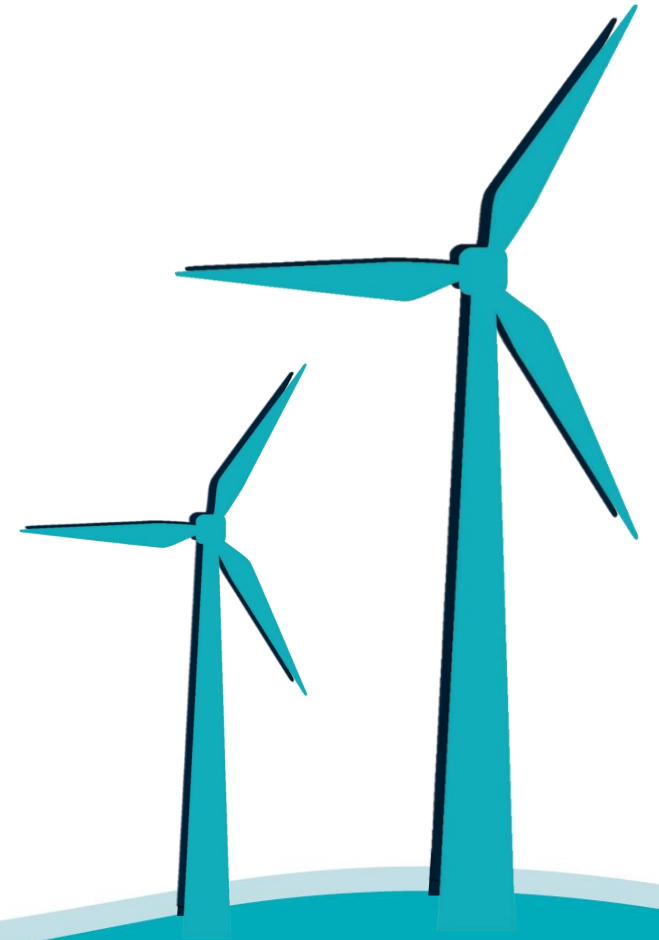


Published May 2023

- ✓ *Concept Design*
- ✓ *Schedule*
- ✓ *Cost Estimate*

[Source: PierWind Concept Report](#)

Status Update



Design Development

Industry
Feedback



From **over 50 entities**
across the supply chain

Offshore Wind Developers

Foundation Designers

Foundation Manufacturers

Original Equipment Manufacturers

Heavy Lift Operators | Vessel Operators

Contractors | Fabricators | Terminal Operators

Foundation Scale



Source: Principle Power



Foundation Logistics



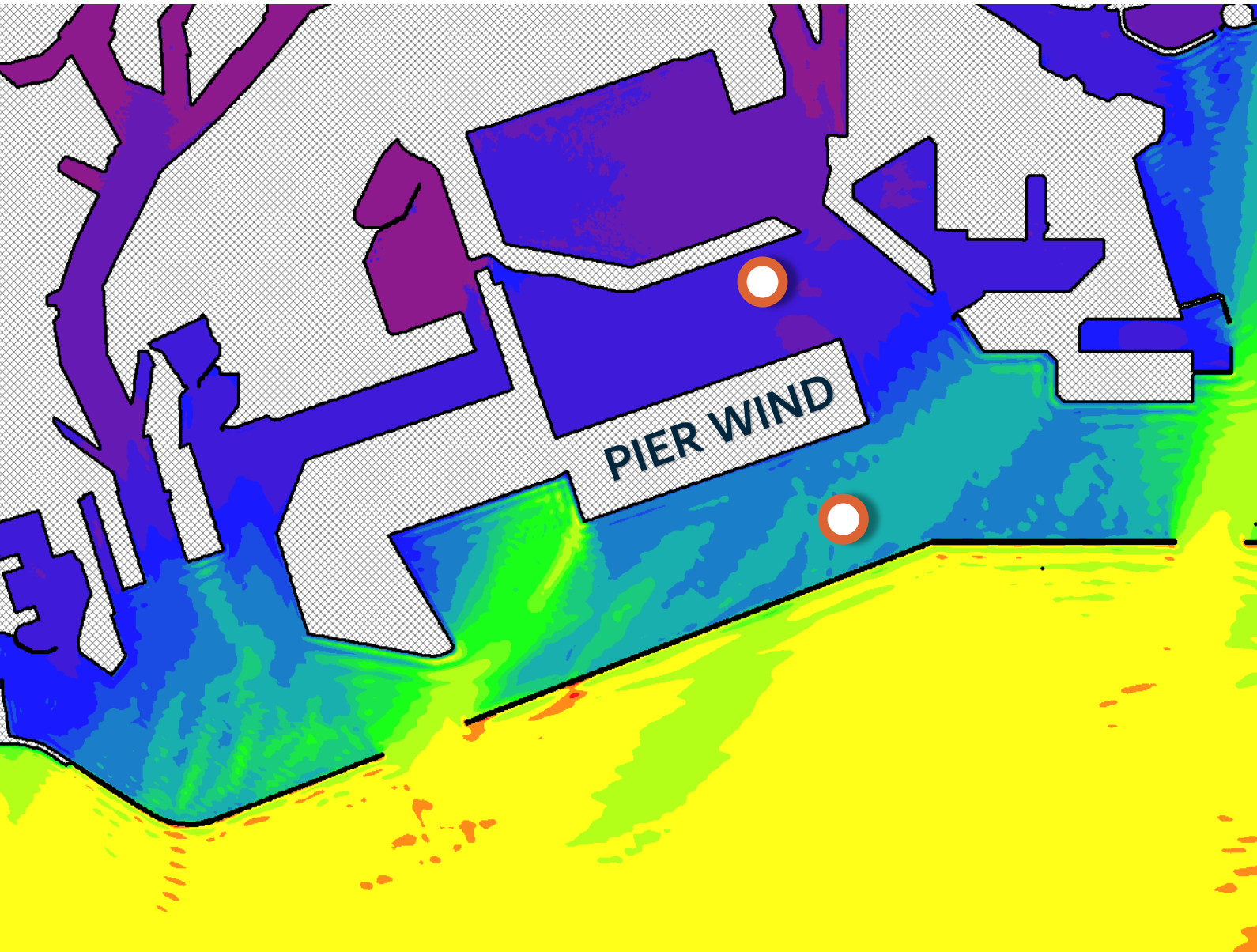
Source: Boskalis

Foundation Assembly



Source: Principle Power

Wave Inputs and Modeling





Deployed two instruments in Outer Harbor



- Collected wave data for 12 months, supplementing existing wave database
- Calibrated and validated model and analyzed multiple wave scenarios and sea level rise
- Confirmed favorable conditions at Pier Wind quay for offshore wind operations
- Confirmed no adverse impact to operations at existing terminals

Geotechnical Investigation



-  Boring Location within Pier Wind Site (2023)
(Depth below mudline varies from 80.9 ft to 126.5 ft)
-  Boring Location at Proposed Dredge Site (2023)
(Depth below mudline varies from 41.5 ft to 131.5 ft)

Performed 36 borings to get soil parameters. Information is used to inform:

- Rock dike design
- Pile design
- Fill design, surcharge & wick drain design

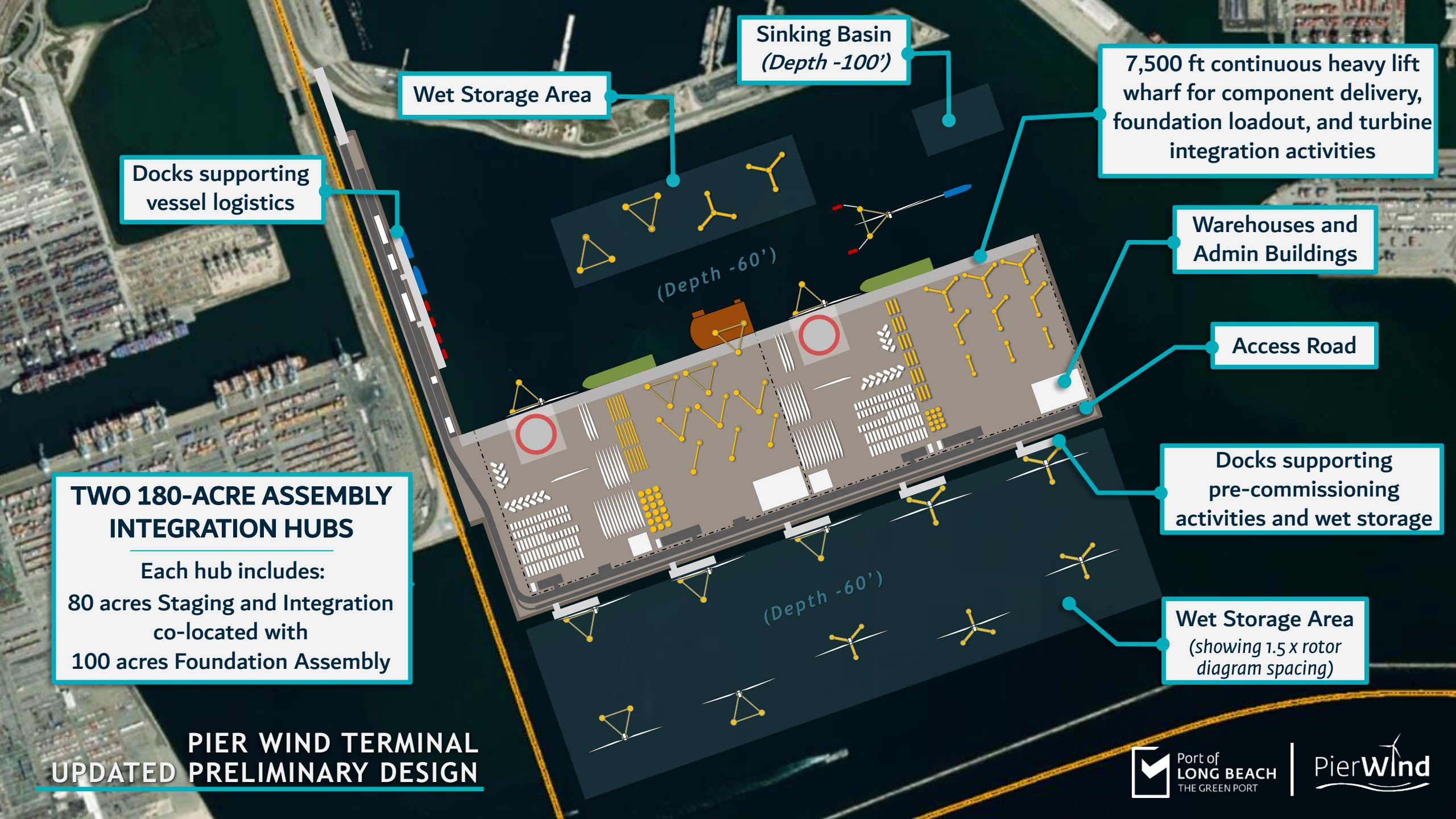


Sediment Investigation



Collected 22 sediment samples.
Information is used to inform:

- Sediment quality for fill planning
- Sediment quality to support environmental document and early agency discussions
- Sand exploration



Sinking Basin
(Depth -100')

Wet Storage Area

7,500 ft continuous heavy lift wharf for component delivery, foundation loadout, and turbine integration activities

Docks supporting vessel logistics

Warehouses and Admin Buildings

Access Road

TWO 180-ACRE ASSEMBLY INTEGRATION HUBS
Each hub includes:
80 acres Staging and Integration co-located with
100 acres Foundation Assembly

Docks supporting pre-commissioning activities and wet storage

Wet Storage Area
(showing 1.5 x rotor diagram spacing)

**PIER WIND TERMINAL
UPDATED PRELIMINARY DESIGN**

CEQA/ NEPA/ Permitting

Team in Action



US Army Corps
of Engineers®

Preparing a joint Environmental Impact Statement / Environmental Impact (EIS/EIR) Report



Notice of Preparation / Notice of Intent and Initial Study published November 30, 2023



Two Public Scoping Meetings were held on December 13, 2023 and January 10, 2024

What's Ahead



Preparing the draft EIS/EIR

Anticipate releasing draft for public review in mid-2025

Business/ Finance/ Delivery

Team in Action



Evaluated various business, finance, and delivery models, and recommended pursuing a Construction Manager / General Contractor model (CM/GC) for Pier Wind construction



Sponsored Legislation AB 2235 (Lowenthal), which was signed by the Governor in September

What's Ahead



Evaluate private investment structures and strategy as part of the overall public/private funding mix for offshore wind port development, including potential credit support and revenue backstop mechanisms



Develop Draft RFP for CM/GC and release for industry feedback

Outreach and Engagement



ZEERO Roundtable and Collaborative

Representatives from community, business, environmental, labor, education, tribal, multicultural, nonprofit, and nongovernmental sectors meeting to collaborate and provide important input and feedback on proposed port projects including PierWind

Other Port Outreach

Speakers Bureau

Industry Associations

Community Events and Tours

Website and Media



Team in Action



ZEERO Roundtable

Roundtable Meetings - July 23
September 18

ZEERO Collaborative

Collaborative Community Meeting - October 19

Speakers Bureau – FY2024-Q4

Wilmore City Heritage Association – July 17
Downtown Long Beach Alliance – August 21
Gateway Cities Council of Governments – October 2
Belmont Shore Residents Association – October 10
Downtown Residents Council – October 21

State and Federal Engagement

Extensive briefings of State and federal agencies, elected officials, and staff throughout FY2023 and FY2024

International Engagement

Norway Delegations – April 15 & October 27
United Kingdom Delegation - February 10
Port of Mokpo, South Korea - September 12

NGOs

EOPA and League of Cities – October 18
Renewables 100 Policy Institute - October 21
Energy Foundation – June 14 & July 25

Team in Action



Industry Associations: Panelist / Presenter

2023

- Pacific Offshore Wind Conference – [May 9](#)
- Oceantic Supplier Day – [June 7](#)
- Offshore Wind Transmission – [June 14](#)
- Reuters Offshore Wind USA 2023 – [July 11](#)
- Association of Pacific Ports – [August 15](#)
- Oceantic Ports & Vessel Summit – [September 20](#)
- AGC Construct – [October 11](#)
- BlueTech – [November 15](#)
- Reuters Floating Offshore Wind – [November 29](#)

2024

- AAPA Powers Summit – [January 22](#)
- Oceantic Floating OSW Summit – [February 22](#)
- Offshore Wind Transmission – [March 13](#)
- International Partnership Forum – [April 23](#)
- Pacific Offshore Wind Summit – [May 13](#)
- Reuters Offshore Wind US 2024 – [June 16](#)
- WEDA Dredging Summit – [June 24](#)
- ASCE COPRI – [September 11](#)
- AFloat Summit 2024 – [September 24](#)

What's Ahead

ZEERO Roundtable

ZEERO Roundtable Meeting - **November 14**

Speakers Bureau

Westside Promise Day of Action - **November 16**

Kiwanis Club - **November 19**

Non-Governmental Organizations

Capital Impact Partners – **November 15**

State

California Workforce Development Board – **December 10**

POLB & CEC Ports Symposium – **February 21**

Industry Associations

Propeller Club Storms Flooding and Sea Level Conference – **November 12**

Floating Wind Solutions Conference – **January 15**



Outreach and Engagement in Action



Grant Funding Opportunity





Offshore Wind Energy Waterfront Facility Improvement Program (GFO-24-701)

- Total of up to \$42,750,000 available for grants
- **Addendum** issued November 8, 2024
 - Category I activities support developing individual or regional retrofit concepts and investment plans.
 - Min. award of **\$750k** and max award of **\$3M**, up to total of **\$7.75M**
 - Category II activities support final design, engineering, environmental studies and review, and construction of retrofits. Must demonstrate project **builds on existing efforts** at the proposed project for supporting **staging and integration activities**.
 - Min. award of **\$7.5M** and max award of **\$20M**, up to a total of **\$35M**
- Application deadline extended to **December 20, 2024**

Port Offshore Wind Equity and Readiness Project



The **POWER** project includes critical tasks to enable the full-scale construction of Pier Wind if approved, including: finalize design, finalize environmental review and permitting, and support extensive community, tribal, industry and agency engagement



Applying for the **maximum \$20M** grant funding amount under **Category II**

Requested Board Actions:



- Approval for matching fund commitment
- Approval of spending authorization to continue with efforts while the Port's application is being considered
 - Port has invested **\$12M** to date

Economic Benefits



Preliminary Economic Impact Analysis



4,200 average annual jobs supported during Pier Wind construction, and
1,800 average annual jobs for assembly and operations at Pier Wind
and **potentially thousands** of indirect jobs associated with supply-chain *



\$8 billion in cumulative labor income

\$14.5 billion in economic output

\$1.3 billion in State and local taxes

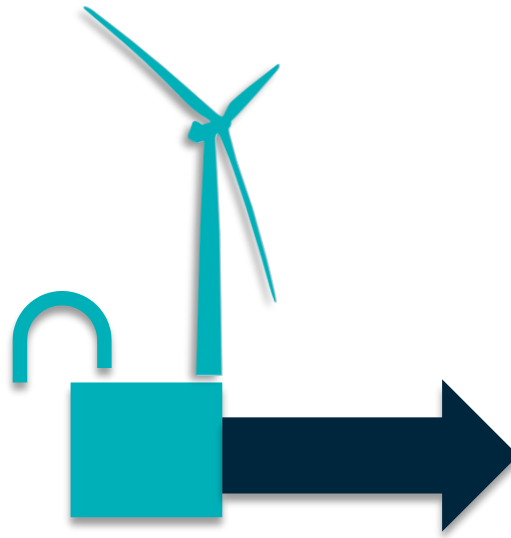
Total economic and tax impact (2024 – 2045)



* Additional sources of economic impact excluded from the analysis: Although PierWind is a key enabling infrastructure for offshore wind development in California, the analysis does not include the benefits of other aspects of the wind farm development, such as construction and installation of the substation, array cables, anchors, mooring lines, etc.; jobs associated with manufacturing and local content; or jobs associated with the Operations & Maintenance of the wind farms.

Pier Wind is Enabling Infrastructure

S&I sites unlock the broader offshore wind market



Manufacturing
Operations and Maintenance



Establishing the necessary S&I sites, along with a corresponding pipeline of offshore wind development projects, **will attract investments in manufacturing and O&M facilities**

Moving Forward



Strong partnerships and whole of government approach to achieving goals

Environment

Energy

Economic

Equity



Port of
LONG BEACH
THE GREEN PORT



www.polb.com/pierwind