



IBEW1245
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CAL POLY



CADEMO

Offshore Wind High Road Training Partnership: Summary of Findings

SLO Workforce Development Board
November 2, 2023

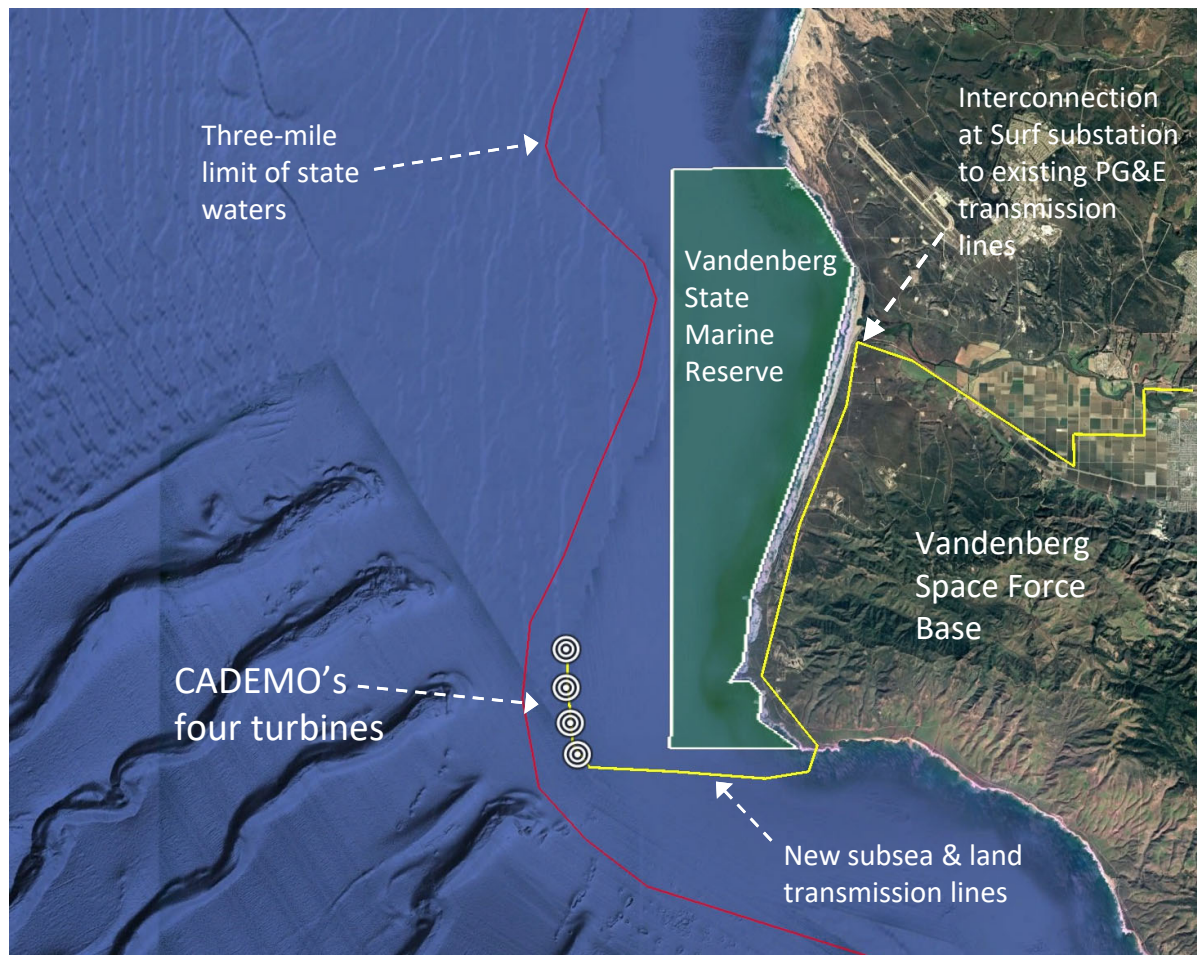


A partnership for empirical, hands-on industrial workforce planning



- H RTP is focused on CADEMO, California's first offshore wind project
- Detailed planning for supply chain, labor, ports, regulatory compliance, community/tribal engagement
- **Not an academic/policy exercise – this is a real project underway**

First in the water: CADEMO



- California's first offshore wind project - operational 2027, years before projects in federal waters
- In state waters 2.8 miles off Vandenberg Space Force Base
- Four 15-MW turbines, total 60 MW
- Permitting at State Lands Commission - decision on final EIR & 25-year lease expected 12/24
- Joint environmental review underway: SLC lead agency on EIR, Air Force lead agency on EIS
- Mitigation Agreement with DOD
- In PG&E transmission queue

Lessons learned: labor relations

- Labor-management cooperation can be effective – but also hard to create. Floventis and unions spent two years negotiating a MOU with a Project Labor Agreement (PLA), Maintenance Agreement, and Outside Line Agreement.
- Sticky issues: impact on out-of-state supply chain sourcing decisions; role of offshore marine contractors; impact on non-construction unions.
- These are new, difficult issues for management. Risk of impact on company's supply chain, legal risk, lack of political familiarity.
- In-house counsel: *“Why do this now? Why not wait until the end as we do elsewhere? Why give up our leverage?”*
- PLA signatories to date: State Building and Construction Trades Council; IBEW 1245; Southwest Carpenters.
- PLA recognizes traditional jurisdiction of non-construction unions such as ILWU and marine trades.

Partnership with labor unions

- Project Labor Agreement with State Building Trades and IBEW 1245. Southwest Carpenters signed afterward.
- Creates model for pro-labor cooperation in the offshore wind industry statewide.
- Will serve as template for other developers.



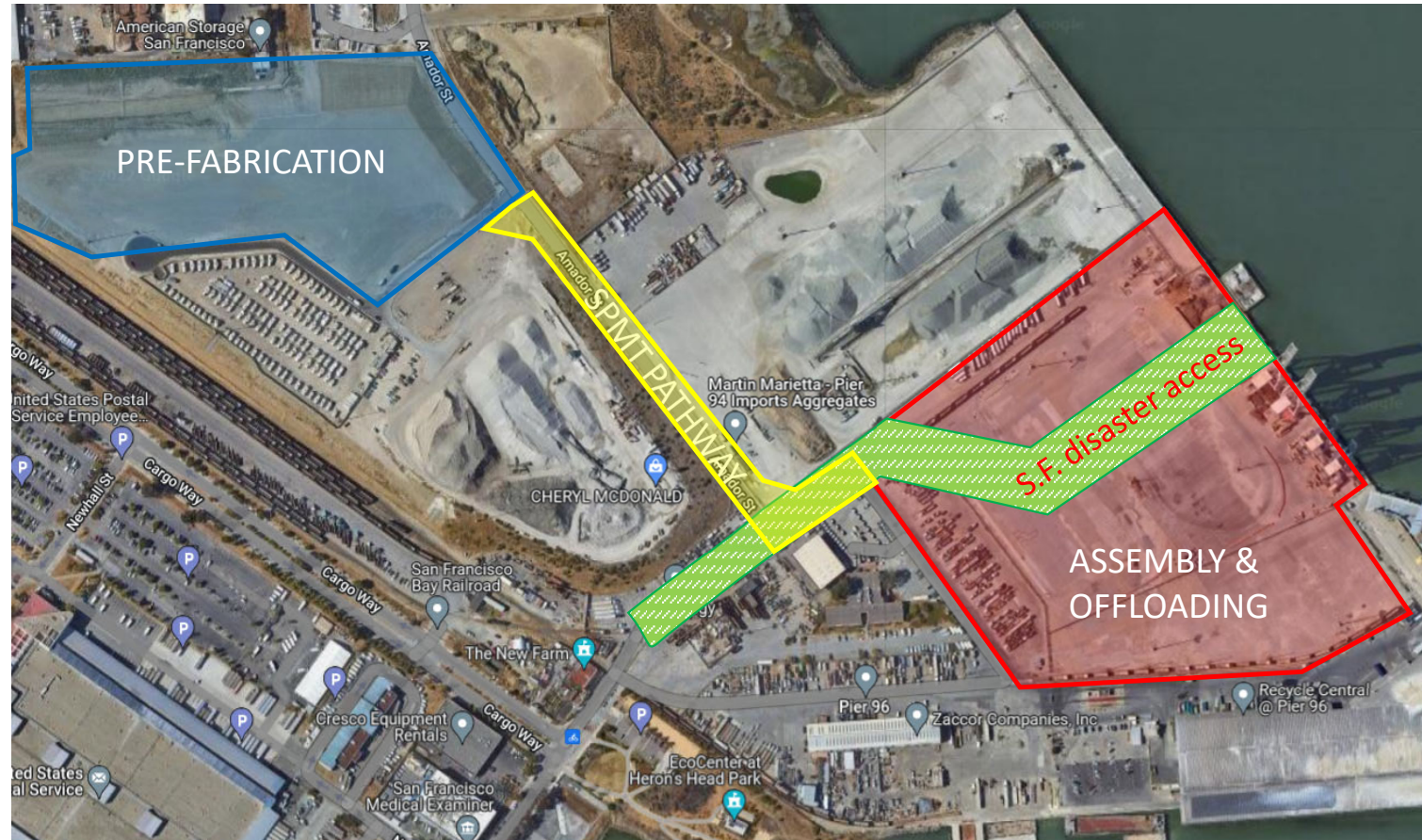
Floentis Director Mikael Jakobsson with Building Trades at PLA announcement in San Luis Obispo, November 2022

Lessons learned: ports and jobs

- Turbine components themselves – towers, nacelles, and blades – must be manufactured out of state because attracting such a capital-intensive industry to California will take a decade or more.
- Platforms can and should be made in California.
- CADEMO initiated Port of San Francisco planning for platforms construction facility. FEMA funding. Will be expanded for federal waters projects.
- CADEMO final turbine integration at Port of Los Angeles.
- Reality check: no new mega-port on Central Coast. O&M port only, plus helicopters.
- Central Coast will see modest economic & workforce. No huge boom.
- Possible use for Port Hueneme for cables & anchors staging, and/or O&M site. Depends on U.S. Navy.
- CADEMO's primary jobs impact – like that of the much larger projects in the federal Morro Bay lease area – will take place at major port facilities outside of the immediate region.

San Francisco dual-use facility: disaster relief and offshore wind

- Pier 96 to be upgraded for platforms construction, as supplement for Humboldt and SoCal.
- Pier 96 is also City's designated disaster relief port facility for major earthquake, with FEMA funding.
- First phase ready by 2027, in time for CADEMO and quake relief.
- Second phase for Morro Bay federal projects, prior to Long Beach facility readiness



Cal Poly: overall economic impact of CADEMO

Project Phase	Impact Categories	Jobs (FTE)	Earnings (\$ Millions)	Output (\$ Millions)	GDP (\$ Millions)
Construction	Onsite	20	2.0	2.0	2.0
	Supply Chain	677	66.1	156.6	84.7
	Induced	225	13.1	44.7	27
	Total	922	81.2	203.4	113.7
Operations (Annual)	Onsite	4	0.4	0.4	0.4
	Supply Chain	12	1.1	3.9	1.8
	Induced	7	0.4	1.3	0.8
	Total	23	2.0	5.6	3.1

Lessons learned: supply chain

Steel vs. concrete platforms:

- Steel: California lacks fabricators for the huge rolled steel pieces, so these pieces will be imported and welded together at local port. (NASSCO in San Diego could serve but requires early commitment for offshore wind vs. Navy contractors)
- Concrete: Forms could readily be made with locally produced concrete at San Francisco.
- The Bay Area's large and highly skilled construction workforce would easily suffice to fill all project needs.

Difficulties in the marine sector:

- Launch of floating platforms from wharf into water, final turbine integration, and anchor and cable laying.
- No shortage of skilled workers. But legally compliant vessels themselves will be scarce and may need to be sourced from abroad. Jones Act (requiring U.S.-flagged vessels) and CARB's requirement of US EPA Tier 4 emissions standards.

Lessons learned: workforce training

Don't put the cart before the horse. Negotiate PLA first.

- PLA gives access to California's system of joint union-employer apprenticeship programs. They can be adapted with new modules tailored to project's needs.
- ILWU and marine trades (Inlandboatmen, SIU) have similar training programs.
- These will resolve all workforce needs for the land-based phases of CADEMO and larger-scale offshore wind projects.
- CADEMO's PLA: on board U.S.-flagged vessels, all construction-related workers must be members of PLA signatory unions.
- On foreign-flagged vessels, 50 percent of construction-related workers must be PLA signatory union members. For these and other U.S. offshore workers, additional training will be needed.
- Partnerships needed between educational institutions, labor unions, and marine contractors to partner in creating offshore training programs, especially for the long-term operations and maintenance phases of offshore wind farms. Humboldt H RTP?
- Cooperation with offshore oil decommissioning – logistics and workforce.

Next steps

H RTP actions:

- H RTP continues to April 2024.
- Outreach to offshore wind industry – developers and contractors. Evangelize H RTP model.
- PLA lessons learned – template for other projects.
- CBA with Santa Ynez Chumash tribe.
- Cooperation with Humboldt H RTP. How to close workforce training gaps.
- Work with community colleges on possible degree programs.

Government actions:

- Offshore marine sector: challenges with Jones Act and Tier 4 require attention of state and federal agencies in cooperation with offshore wind industry.
- Marine trades – Humboldt H RTP with Crowley?
- Without H RTP recognition in AB 525 report, state agencies would have no guidance how to include H RTP lessons learned in offshore wind strategy. CPUC would have no guidance as to role of CADEMO and whether to include it in procurement requirements.