The Importance of Floating Wind Demonstration Projects

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FWS

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Offshore wind – The new CA Gold Rush?

High wind

Fishermen

Enviro data

Legal challenge

But no grid connection

State Mandate

State objectives

SB100

CPUC planning

True power needs

CAISO queue

PPA's $30-$50 /MWh

Tax credits

Lower wind

With grid connection

Jobs

Ports

AB525

California's planning complexities

- A virgin market and environment with no experience of offshore wind
- AB 525 – A robust and broadly supported law for offshore wind, providing pathway for planning, environment, ports, job creation etc.
- BOEM auction process in late 2022 for two areas totaling an excess of 4GW (however not with planning defined by AB525)
- BOEM lease tender expected as normal with "highest bidder" awards
- PPA's for competing renewable power between $30-$50/MWh
- Industry has promised of tens of thousands of local jobs, 3GW installed before 2030.

The definition of “demonstration” projects?

Although offshore wind industry may be ready for California, is California ready for multi-GW?

California readiness snapshot

- Technology ➕ ➕
- PPAs, grid etc. ➖ ➕ ?
- Environmental ➖ ➖
- Public (socializing) ➖ ➖
- Local industry ➖ ?

- The only way to resolve fears, speculations, and possible legal challenges is to provide facts and prove real-world results
- To meet growing jobs expectations, local industry needs to gain experience, develop readiness and become competitive

De-risking of large-scale deployments in a new market, both socially, industrially and environmentally has always been facilitated by early demonstration projects!

(i.e. France, United Kingdom, Netherlands, Denmark)

Expected jobs bonanza vs. price/cost pressures

Opportunity for local fabrication of floating platforms is raising stakeholder expectations of green union jobs – also a means to counter the higher cost of offshore wind.

White House and California state government are clear on the objectives:

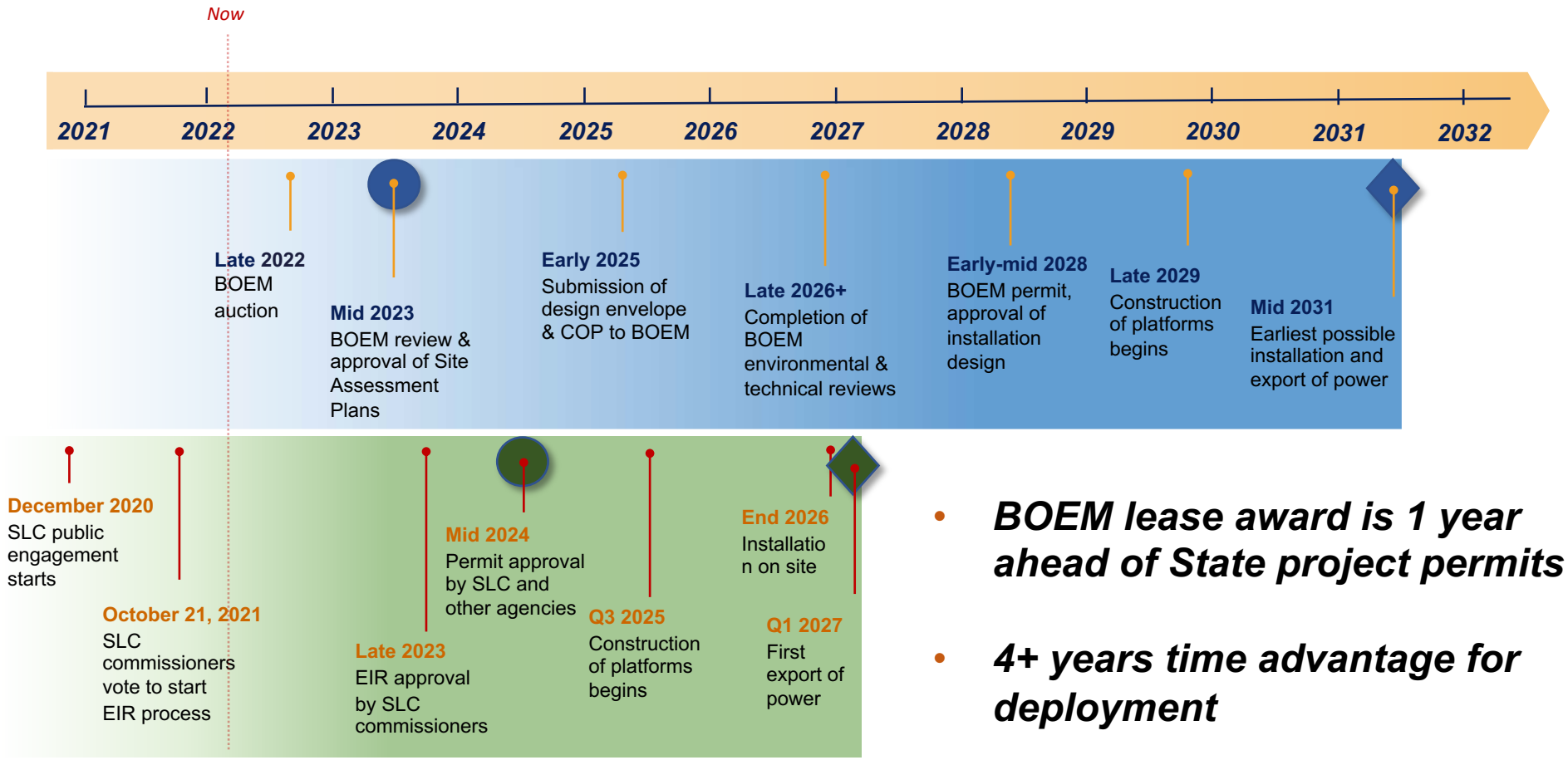
- Enhance socio-economic benefits
- Engage US/local industry
- Create new California union jobs

Can the offshore wind industry deliver these jobs amid low-cost competition and lack of a developed supply chain?

How to generate information years before commercial scale

Bureau of Ocean Energy Management (BOEM) process for projects in federal waters

California State Lands Commission process for CADEMO



- ***BOEM lease award is 1 year ahead of State project permits***
- ***4+ years time advantage for deployment***

Final conclusions and observations

An early demonstration project in California can have a pivotal impact on commercial projects as:

- **A project in State waters secures deployment timely** – this is by definition the only way to deploy any offshore project ahead of federal project timelines
- **It is an independent processes without conflict** – to the contrary, 1 year gap between BOEM lease awards and State project permits, providing options for large scale concerns
- **It is the only option to generate any "real" information** before potential commitment of 10GW of capacity
- **Mitigation measures can be defined and validated** before any commercial deployment
- **Infrastructure and local supply chain can be evolved early** by demand-led growth of manufacturers and specialized service contractors for readiness, competitiveness and jobs

Thank You.

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