1,000 MW Morro Bay Offshore

A Trident Winds Project

October, 2015

TRIDENT WINDS

Trident Winds - the Company

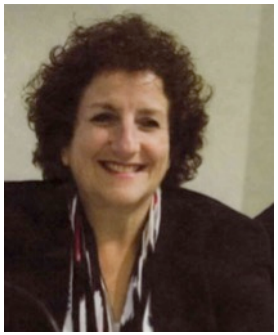
Mission/Vision

- Develop a 1,000 MW Morro Bay Offshore project to meet market demand post 2025

Value Proposition

- Very few developers are familiar with the floating offshore wind
- Floating offshore winds offers siting advantages, flexibility and low environmental impacts
- Development and construction schedule matches CA market demand
- City of Morro Bay has an opportunity to take part in the proposed project

Who are we?



	Alla Weinstein	Eric Markell	Brian Walshe
Experience:	• Founder, CEO & President of Principle Power Inc., a market entry company that developed and is supplying floating support structures to offshore industry • Founder, European Ocean Energy Association that brought together EU marine renewables technology developers • Founder of AquaEnergy Group Ltd, a market entry company that developed wave energy systems • Over 20 years at Honeywell	• Former CFO and Chief Resources Officer of Puget Sound Energy: led acquisition of over 1,600 MW of wind and gas representing $2 billion investment • Former CFO of IPP specializing in distressed energy companies' turnarounds • Significant experience in the acquisition and development of generating facilities	• Former Managing Director in Navigant Consulting financial transaction practice • Performed operational assessments or other site services at over 200 generating facilities in 10 countries • Expert witness in utility rate cases, bankruptcy proceedings, and civil litigation
Previous Employers:	• Principle Power Inc. • European Ocean Energy Association • AquaEnergy Group Ltd • Honeywell	• Puget Sound Energy • United American Energy Corp • Central Hudson Gas & Electric	• McKinsey & Company • Navigant • Stone & Webster
Education:	• B.E. EE, Stevens Institute of Technology • MBA Thunderbird School of Global Management	• B.S. Economics Union College • MPA Syracuse University	• B.S. Civil Engr. Northeastern Univ • MBA University Michigan

Agenda

I. Project Timing – Why Now?

II. Example of Floating Offshore Wind – The WindFloat

III. Morro Bay Offshore Project

Its All About Timing

Market Readiness post 2025

- The post-2025 period will see a need to add large amount of RE to achieve the required GHG reductions
- Transmission, permitting and cost issues create significant challenges for RE projects from eastern regions of California, and for out-of-state renewables, currently prohibited by law
- Retirement of coastal generating creates interconnection opportunities that might otherwise be "stranded"

Technology Readiness

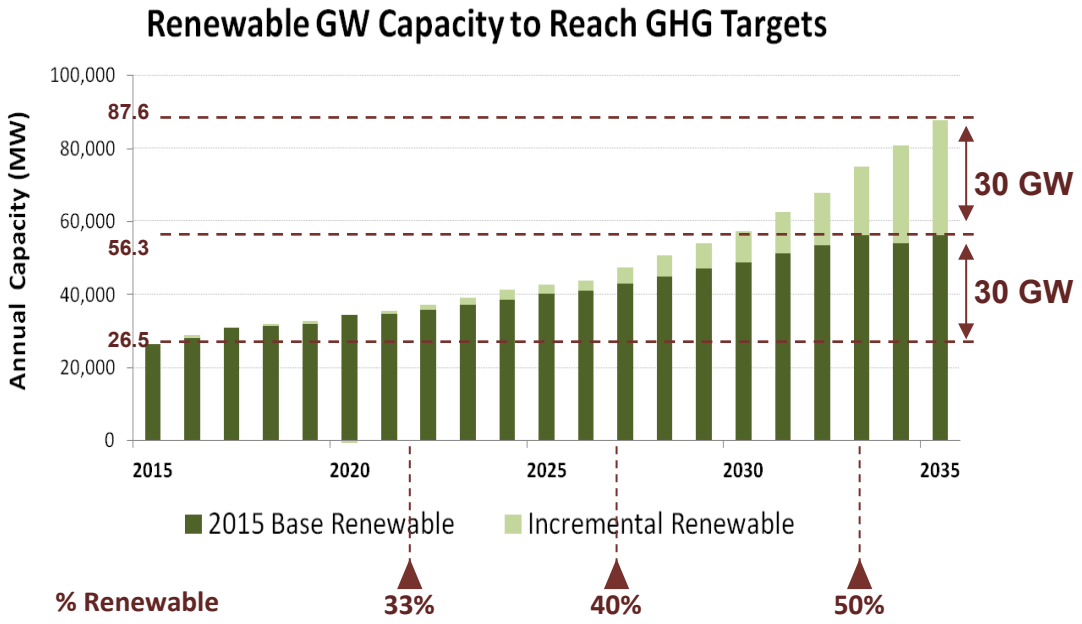
- Floating offshore wind is now proven and a maturing technology
- A number of technology options will be available for offshore wind projects in deep water in the post 2025 timeframe
- WindFloat is the current leading technology, with existing demonstration plant and additional capacity under construction

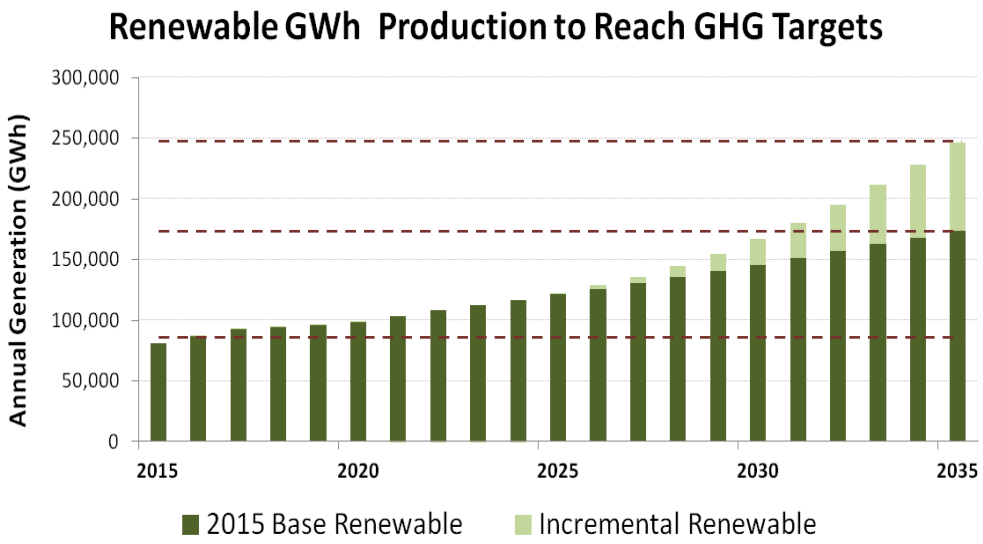
Permitting

- BOEM permitting for floating offshore wind has now been validated through the WindFloat Pacific (OR) project
- CA state agencies may create some complexity, but fall under the BOEM umbrella per Federal regulations

Morro Bay Offshore project offers a timely solution to the California's RE market demands in the post 2025 timeframe

Market Demand: CA will need over 30 GW of new Renewable Energy



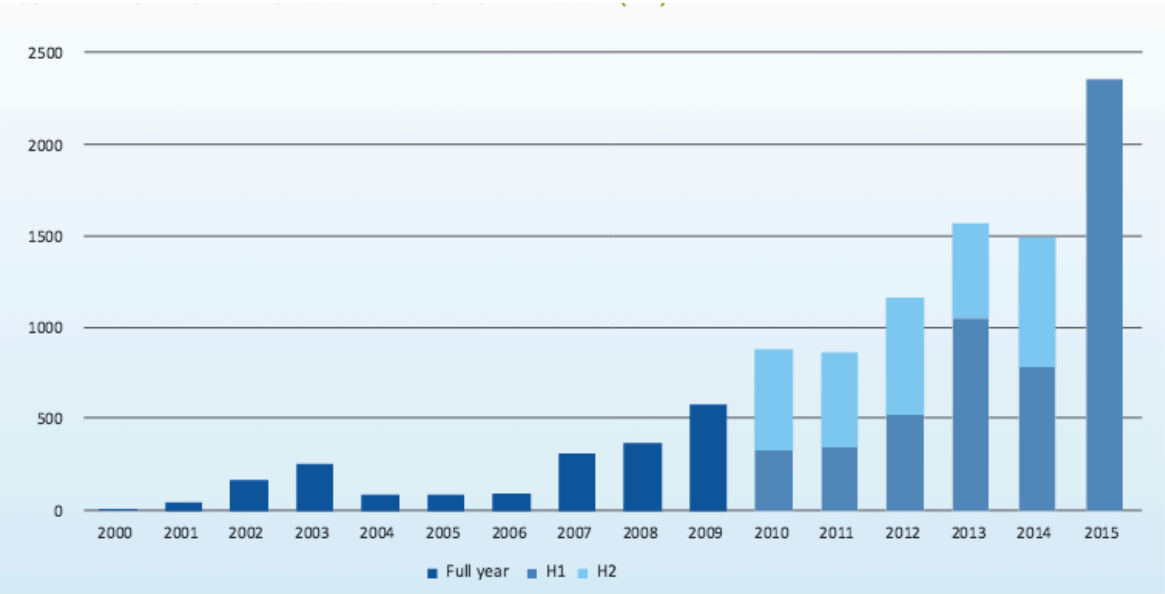


- Existing CA law (AB32) will require 60 GW of new renewable capacity to be built in the next 20 years or ~3 GW/year
  - ~30 GW to transition the existing generation portfolio to renewables assuming zero load growth
  - ~30 GW for new renewable capacity to meet load growth (economic, Electric Vehicles or other)
- On September 12, 2015 CA passed SB 350 that requires "(1) To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources" by December 31, 2030"

Source: Energy + Environmental Economics California PATHWAYS (v.2.3.1) scenario results

Offshore Wind Experience:
> 10 GW Fixed installed in EU; 4MW Floating

Fixed: 10,393 MW installed capacity in Europe



Source: EWEA

Floating: 4 MW installed capacity world-wide

Floating: > 200MW projected by 2020 in UK, PT, JP and FR

Floating offshore wind:
Opens Deep Water locations / Reduced Environmental Impacts

Environmental Impact and Geotechnical Requirements

- No Piling - eliminates noise, pile rejection, offers reduced weather dependence.
- Complete decommissioning – all infrastructure fully recoverable
- Reduced core sampling in field – drag embedment anchors

Flexible Site Location

- Deep water solution – incremental cost increase minimum
- Conventional mooring – inexpensive, uses steel chain and cable
- Drag embedment anchors – effective in all soil conditions: clay, sand and layered soil.
- Produce more energy – site selection is based on resource energy density

Serial Production – On Shore Construction

- Every floating support structure hull in a project is identical – learning curve of 80%
- Fabrication technique is modular – distributed manufacturing
- Load out is bottleneck but can be done in a few days

Quayside Commissioning and WTG Installation

- All commissioning activity completed onshore – onshore labor rates infrastructure.
- Reduced weather dependence – everyone comes to work everyday in shipyard

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WindFloat

by Principle Power

Videos available on YouTube:

2MW WindFloat prototype construction - https://www.youtube.com/watch?v=i6pdp8wyQ8A

WindFloat Farm animation - https://www.youtube.com/watch?v=IO7GXLR4YUo

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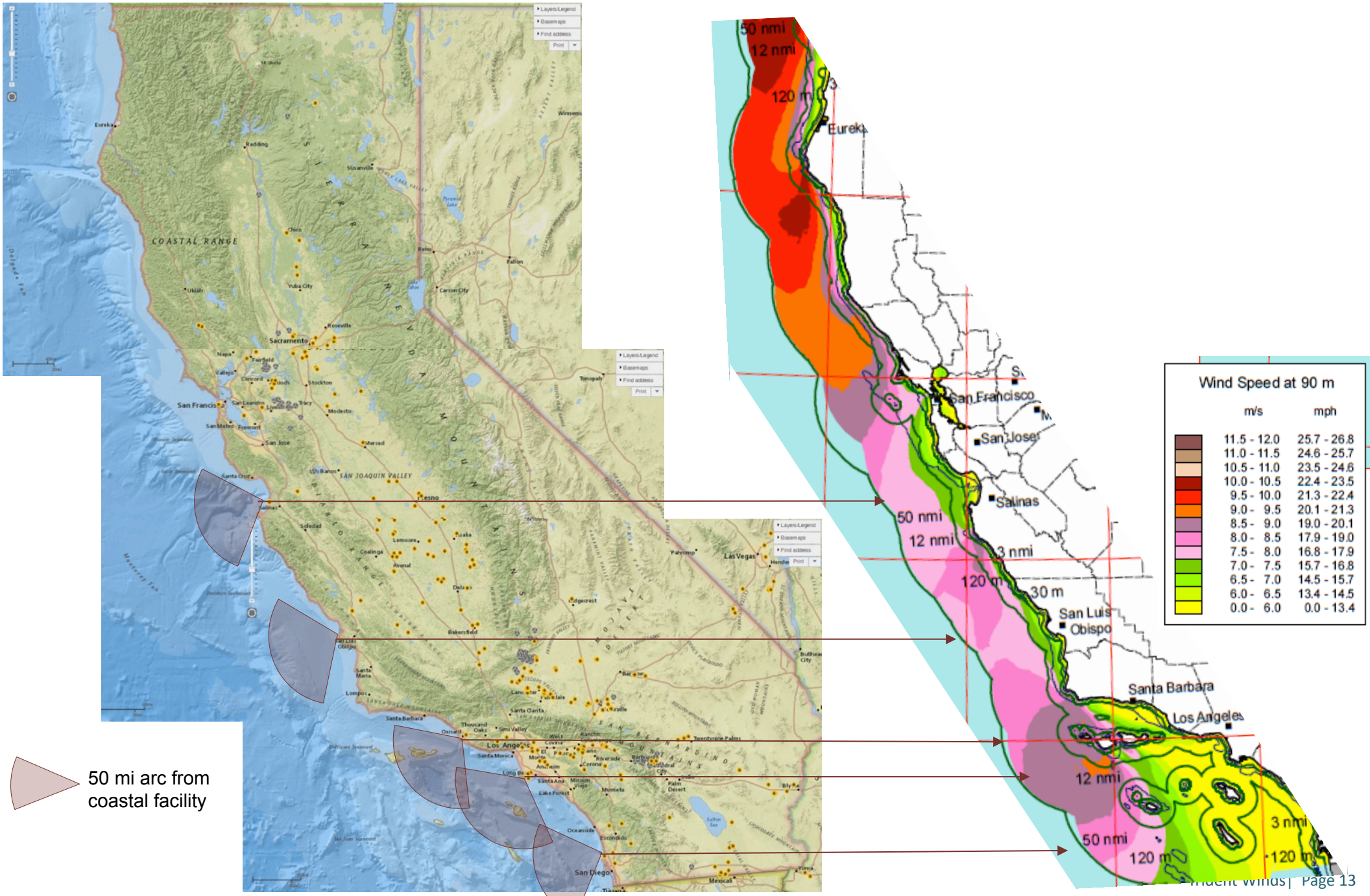
CA Wind Resource/ Interconnection Points



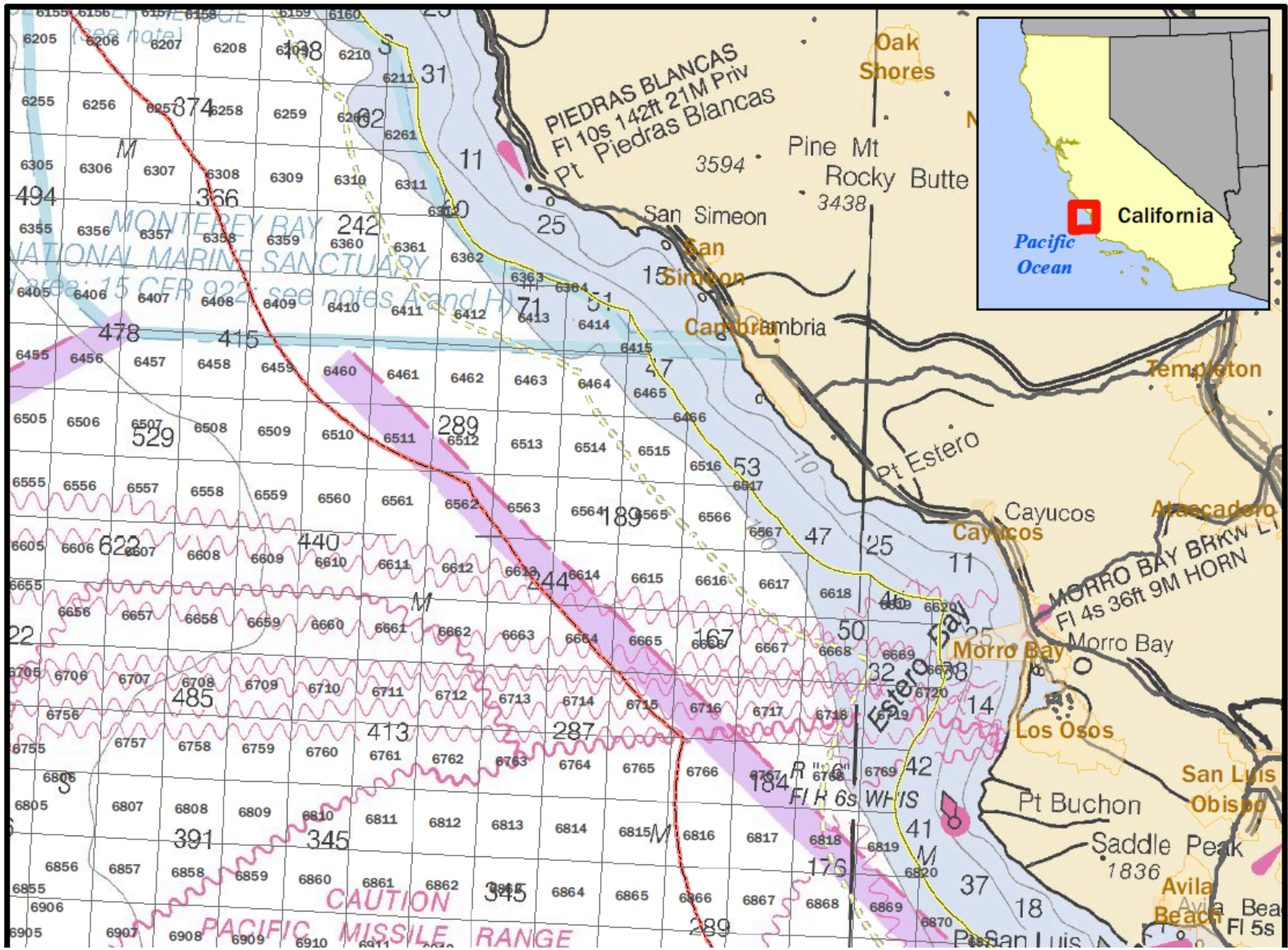
Morro Bay Offshore: Location / Wind Resources

Wind Data

Moor Bay Buoy	46028
Years of good data	27.42
WS > 7.5m/s	> 50%
Hrs per year	> 4000

Contemplated Location

N of Pt Estero	> 15 m
Water depth	> 1500”



Projected Visual Effects: WindFloat Pacific – 15 miles West off Coos Bay

View from cable landing

Zoomed approximately 4 times

Views from other shore locations will be very similar (for example Gregory Point)

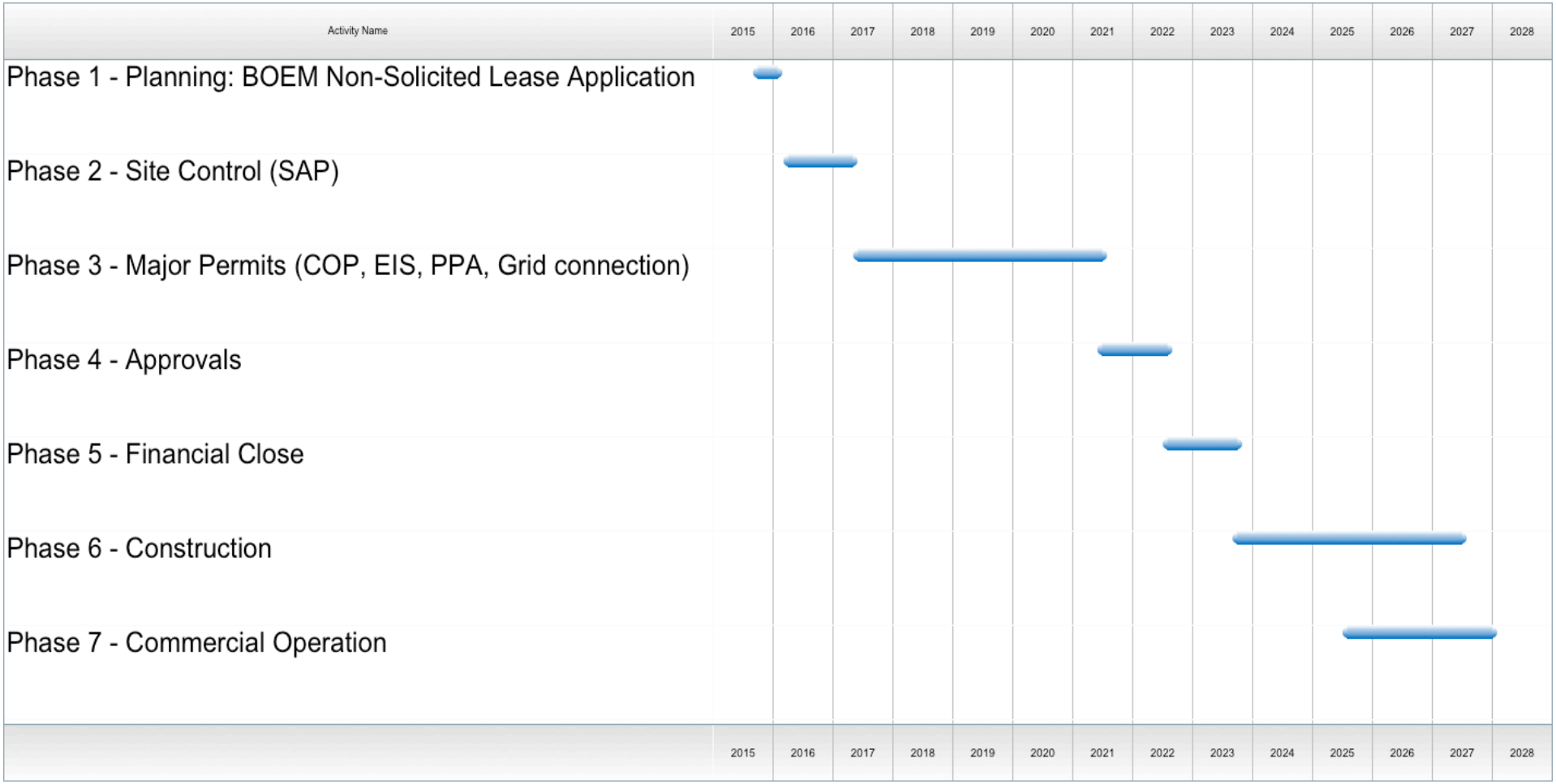
Source: Principle Power Inc.

Morro Bay Offshore: Project Phases

Step	Phase Name	Phase Start Criteria	Phase End Criteria
1	Planning – Early Stage	Starts when developer or regulatory agency initiates formal site control process	Ends when a developer obtains exclusive development rights to a site (e.g., through competitive auction or a determination of no competitive interest in the United States)
2	Planning – Site Control	Begins when the developer obtains exclusive development rights to a site (e.g., through competitive auction or a determination of no competitive interest in the United States)	Ends when the developer files major permit applications (e.g., a construction operations plan for projects in federal waters in the United States)
3	Major Permits Submitted	Starts when the developer files major permit applications (e.g., construction operation plan for projects in federal waters in the United States)	Ends when a regulatory body(s) grants authorization to proceed with construction; a rejection may cause the project sponsor to appeal (still permitting phase), place the project on hold, or cancel
4	Approved	Starts when project has been approved by the relevant regulatory bodies and is fully authorized to proceed with construction	Ends when sponsor announces FID, and has signed unconditional contracts for major construction work packages; achievement of this milestone generally requires that a project has secured sufficient revenue mechanisms (e.g., power offtake contracts, subsidies, or tax incentives) to be financially viable
5	Financial Close	Begins when sponsor announces FID and has signed unconditional contracts for major construction work packages; achievement of this milestone generally requires that a project has secured sufficient revenue mechanisms (e.g., power offtake contracts, subsidy, or tax incentives) to be financially viable	Ends when project begins offshore construction work
6	Under Construction	Starts when offshore construction work is initiated	Ends when project has been connected to the power grid and all units fully commissioned; COD marks the official hand-over from construction to operations
7	Operating	Commences when project has been connected to the power grid and all units fully commissioned; COD marks the official hand-over from construction to operations	Ends when the project has begun a formal process to decommission and stops feeding power to the grid
8	Decommissioned	Starts when the project has begun a formal process to decommission and stops feeding power to the grid	Ends when the site has been restored and lease payments are no longer being made, or if the site has been repowered
N/A	On Hold/ Canceled	Starts when sponsor stops development activities (i.e., discontinues lease payments) and/or abandons a prospective site	Ends when the sponsor announces the restart of project development activities

Source: NREL

Morro Bay Offshore:
Top Level Project Schedule



Morro Bay Offshore: Phase 1 and 2 Tasks

Morro Bay Offshore Planning Phases Tasks

- BOEM Leasing/Permitting
- Public and community outreach
- Environmental Studies
- Wind resource assessment & quantification
- Pre-FEED
- State and local permits
- Transmission study
- Power Purchase Agreement (PPA)
- Environmental Impact Statement (EIS)

Planning Phases Work Product

- Approved Site Assessment Plan (SAP)
- Approved Construction and Operation Plan (COP)
- PPA
- Transmission Interconnect Agreement

Morro Bay Offshore:
Public outreach / Cooperation with the City of Morro Bay

Phase 1 – Planning

- Trident Winds has met with a number of stakeholder:
  - Morro Bay City Council members
  - Local fishermen
  - Northern Chumash Tribal Council
  - Cal Poly
  - SLO Clean Energy
  - CISO
- Planning near-term meetings with:
  - Environmental NGOs and local groups
  - State Agencies, like CEC, CA Lands and Coastal Commissions, CPUC, etc.
  - Federal Agencies

Cooperation with the City of Morro Bay

- Proposed a Cooperation Agreement to ensure close contact with the City

Open Public Meeting to be held on December 10, 2015

- To provide open forum to the Public and welcome further inputs

"The Future for Offshore Wind is Bright……. and it will also be FLOATING"

DNV-GL – "10 Years, 10 Lessons", 2013

Source: Principle Power Inc.