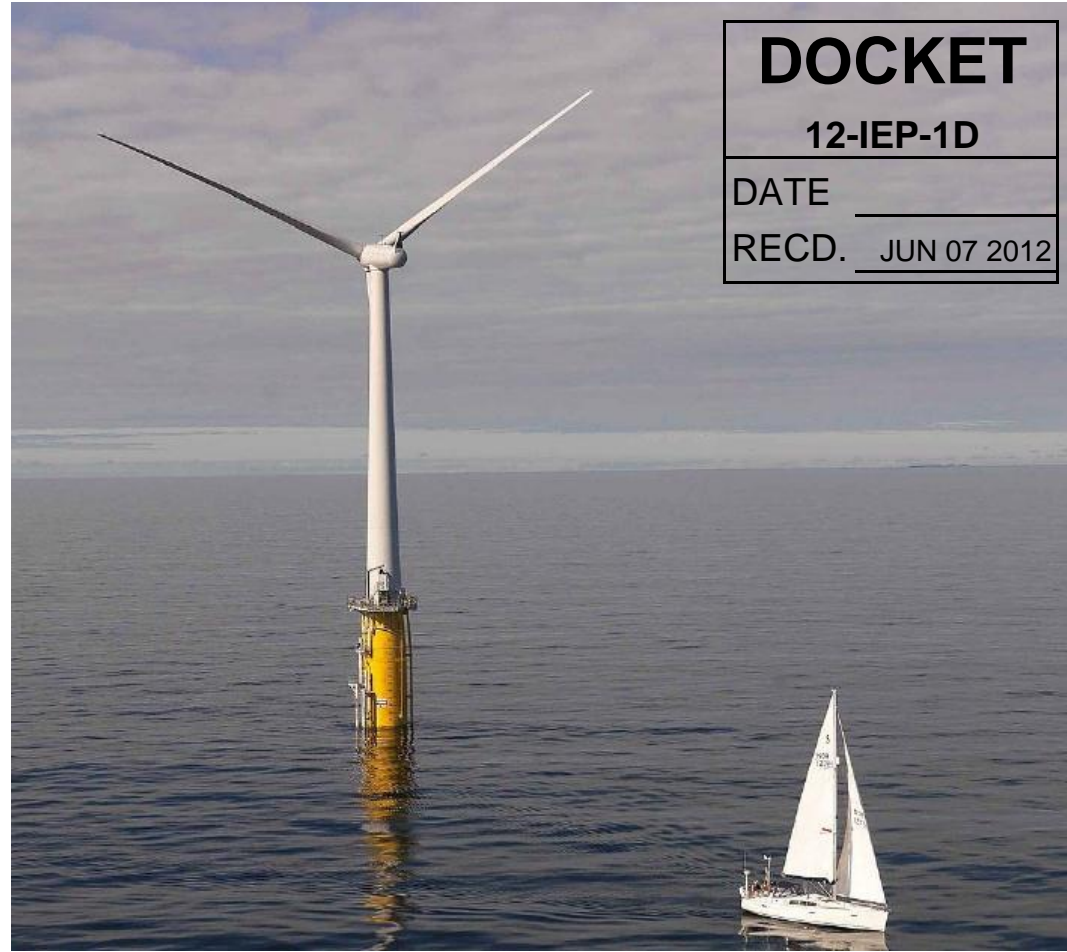


Ocean Energy – Opportunities for California



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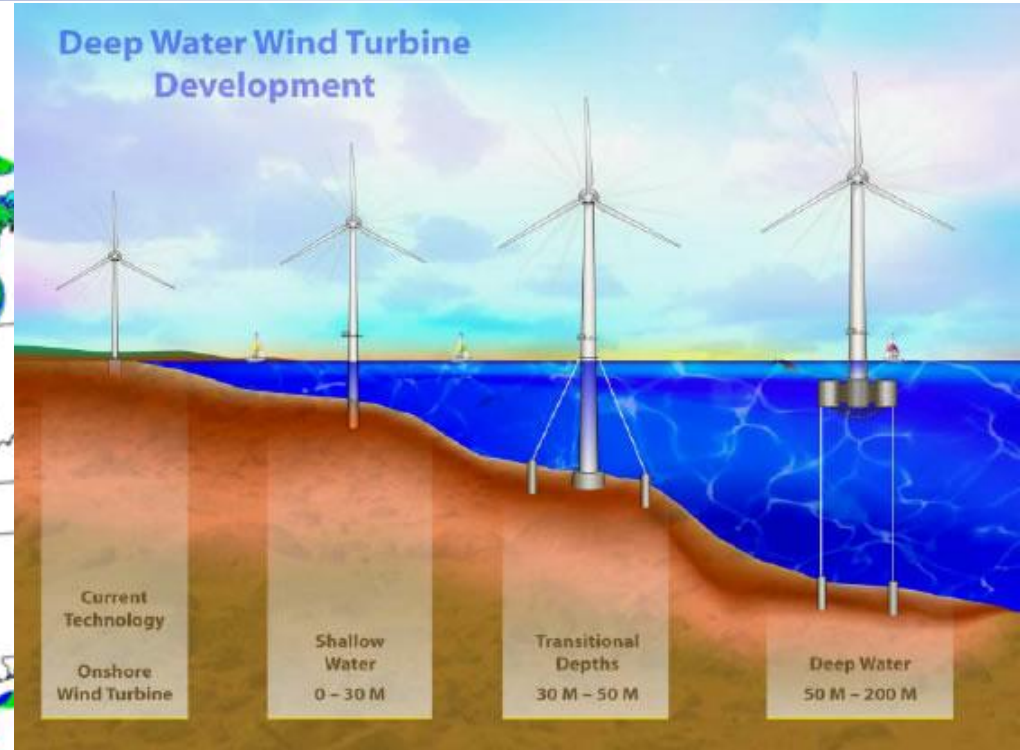
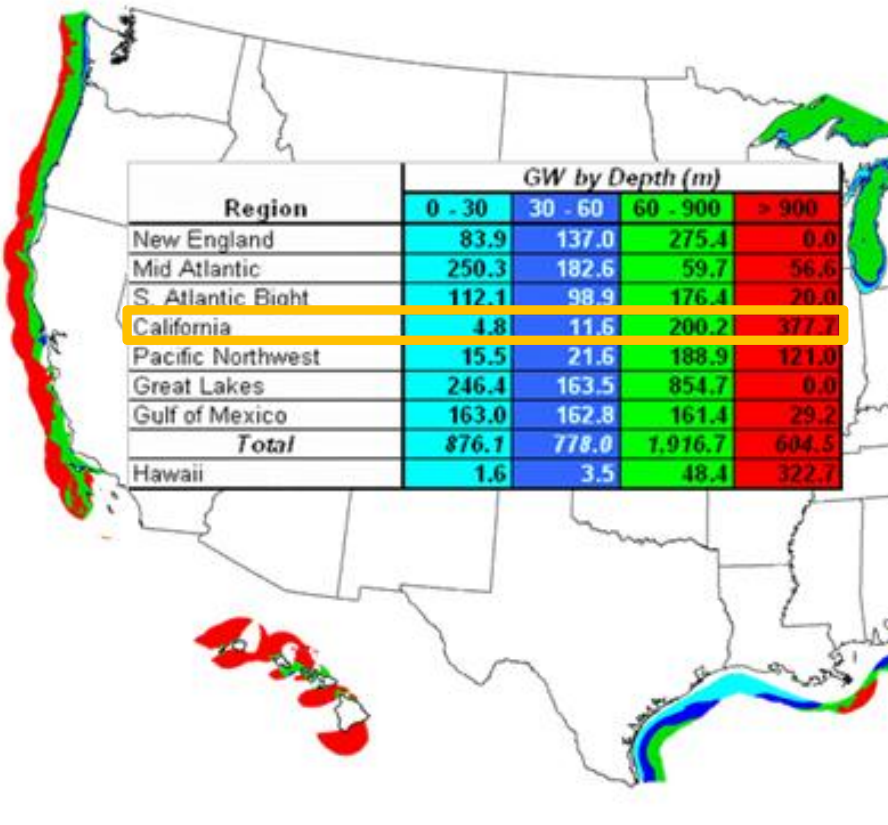
DATE

RECD. JUN 07 2012

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re vision
Supporting visionary renewable energy projects

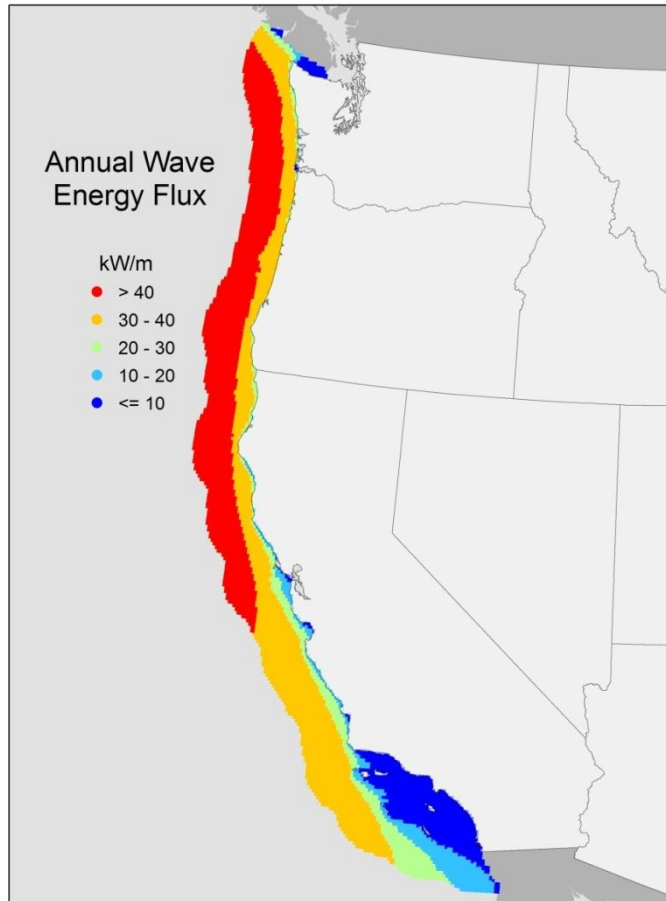
Wind Energy



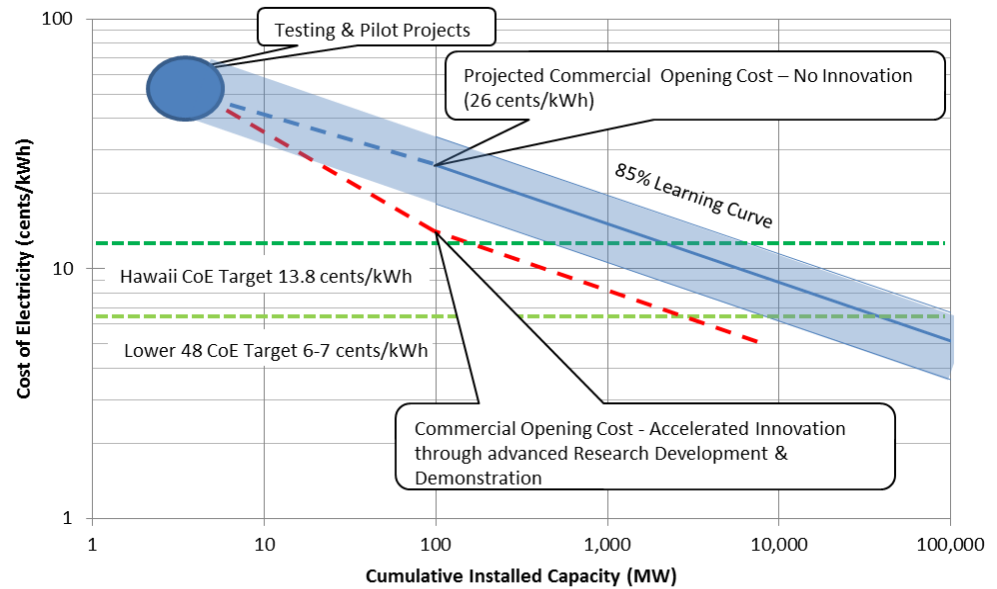
Bathymetry showing offshore wind resources Wind Class 4 and greater by depth (Source: internal report obtained from NREL)

Assumes: 5MW/km²

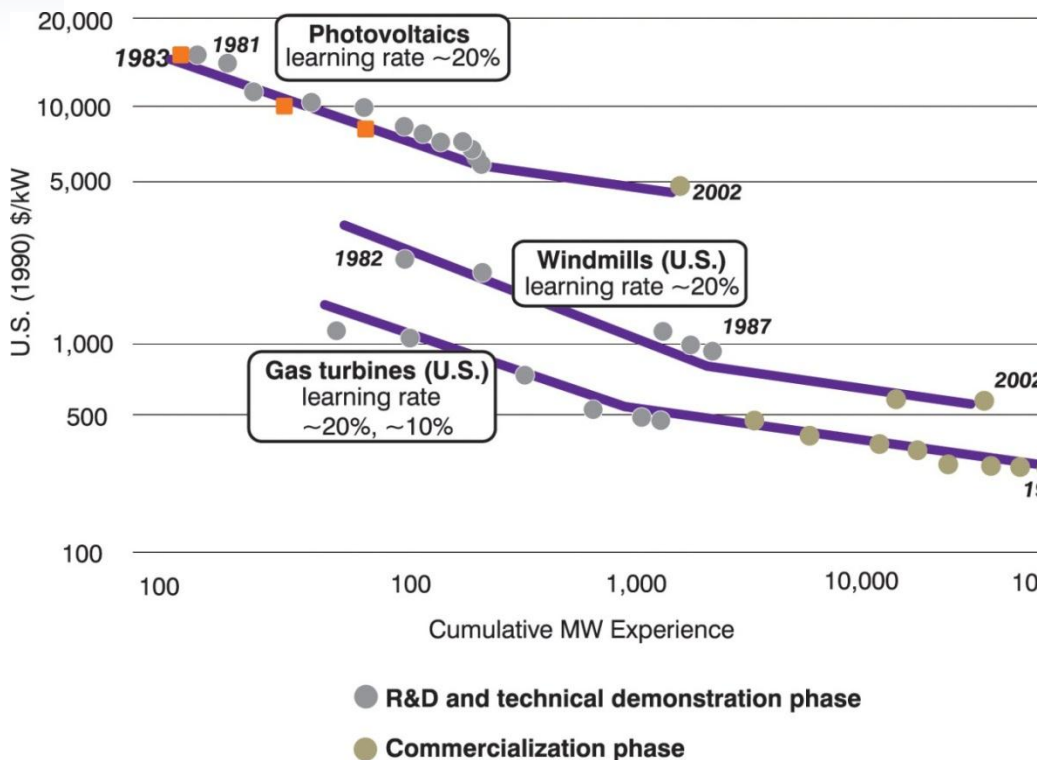
Wave Energy



State	Coast Length	Pave (kW/m)	Average Available Power (MW)	Average Extractable Power (MW)
California	1200 km	30	36,000	5,400
Oregon	280 km	30	8,400	1,260
Washington	150 km	30	4,500	675
Total			49,000	7,350



Next Steps & Needs



Source: Learning Curves – July 2008 Issue of ProjectFinance

Needs

- “Experimental Playgrounds” to optimize technology and operational strategies at pilot and early commercial scale (i.e. < 10MW). Once technology has been proven at smaller scale, they can be adopted at more significant scale at different sites
- Appropriate subsidies need to be provided to support this early adoption of technology and allow for technology to be optimized and mature
- A flexible regulatory framework that allows pilot and early commercial projects to be sited rapidly, allows for adaptive management of environmental effects and insures operational safety.

Ocean Energy can play an important long-term role in securing CA’s energy future. At the federal level they are pursued strategically and if CA made it a strategic priority it could leverage federal funds in this area.