

Offshore Renewable Energy and the California State Lands Commission*

Holly Wyer¹

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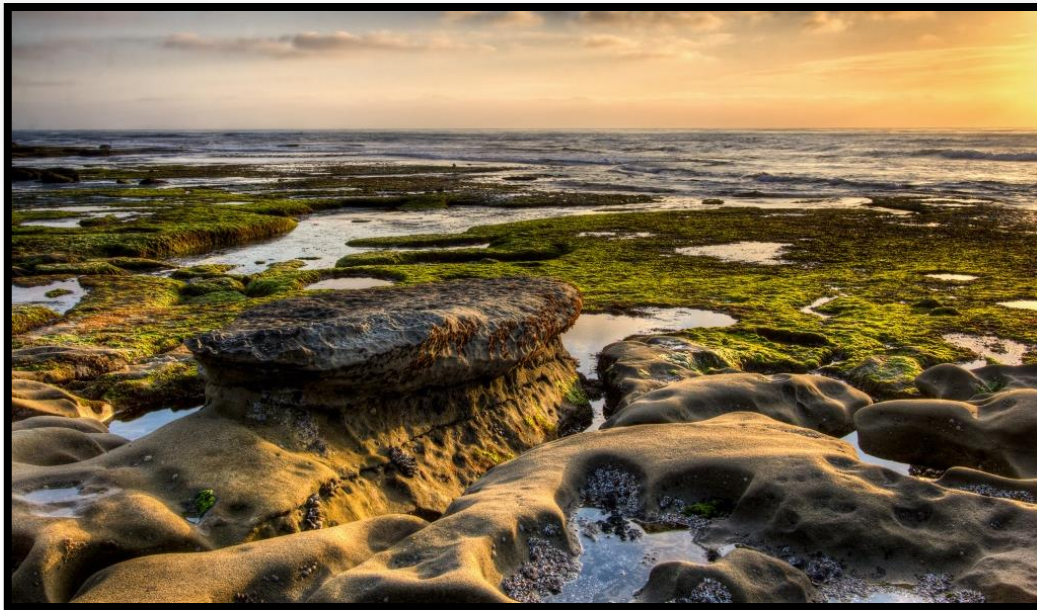
*Adapted from oral presentation given at Pacific Section AAPG, SEG and SEPM Joint Technical Conference, Oxnard, California, May 3-5, 2015

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Abstract

In his January 2015 inaugural address, Governor Brown proposed the ambitious goal of sourcing 50 percent of California's electricity from renewable sources within the next 15 years. Offshore renewable energy has the potential to meet a significant portion of California's energy demand and contribute to the Governor's goal. The California State Lands Commission (Commission) has jurisdiction over ungranted tidelands from the mean high tide line to three nautical miles from shore and considers leases and other permits for use of these tidelands pursuant to the common law Public Trust Doctrine. The Commission is interested in incorporating the responsible development of renewable energy on State tidelands to the extent that development is consistent with the Public Trust. Offshore renewable energy has some advantages over onshore renewable energy. For example, waves, tides, and currents are easier to predict than onshore wind and solar energy, allowing for greater power reliability. In addition, offshore wind also occurs with greater frequency and strength than onshore wind, and in some cases, offshore wind coincides with peak demand for electricity. This presentation will provide an overview of offshore energy potential in California, different types of marine renewable energy technologies, potential environmental impacts of concern, and resources for further information.



Offshore Renewable Energy & the California State Lands Commission

Holly Wyer
Environmental Scientist
PSAAPG Convention
Oxnard, May 5, 2015

California State Lands Commission



Lieutenant Governor
Gavin Newsom



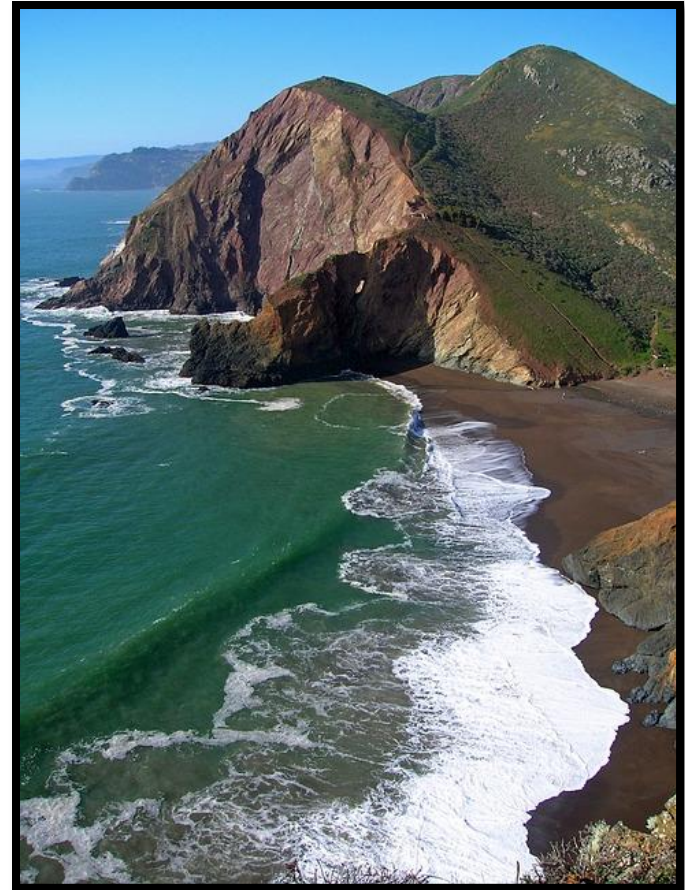
State Controller
Betty T. Yee



Finance Director
Michael Cohen

California State Lands Commission

- The Commission's authority stems from the public trust doctrine
- Activities on submerged lands must be consistent with the public trust doctrine

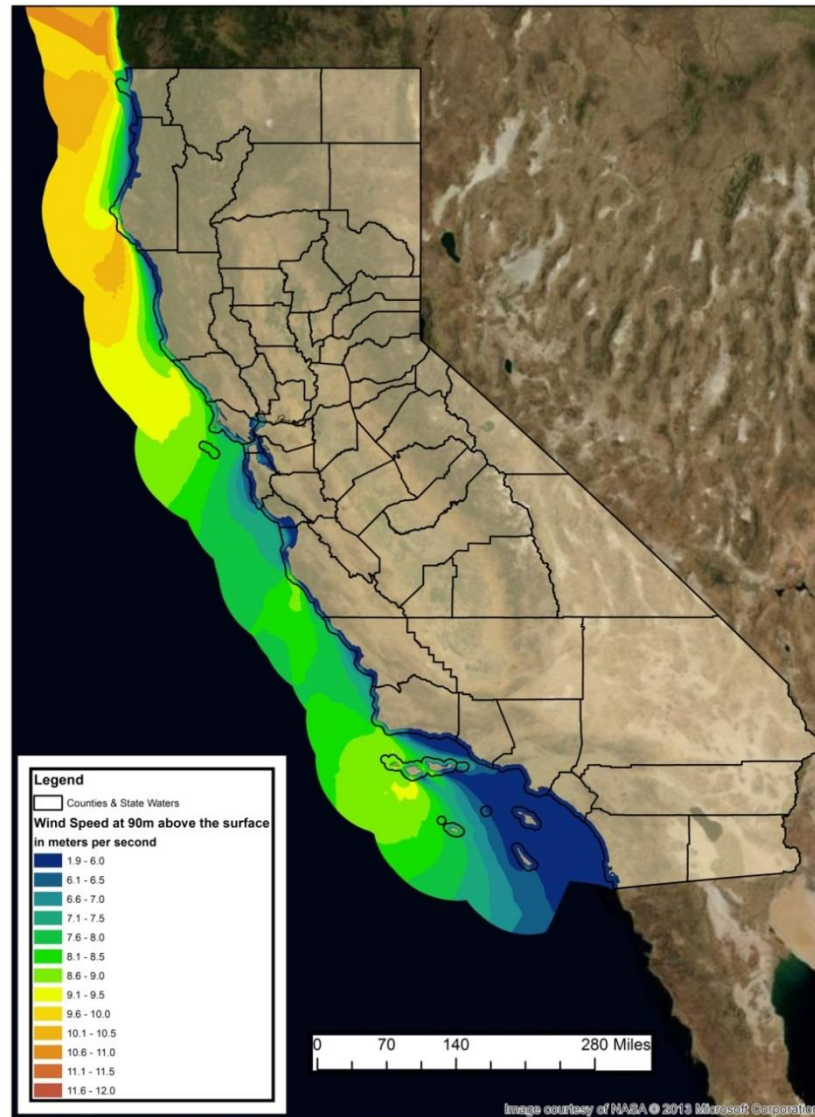


Renewable Energy

- The Commission's activities on renewable energy include:
 - Renewable Energy Program
 - Participation in the California Marine Renewable Energy Working Group
 - Participation in the Desert Renewable Energy Conservation Plan

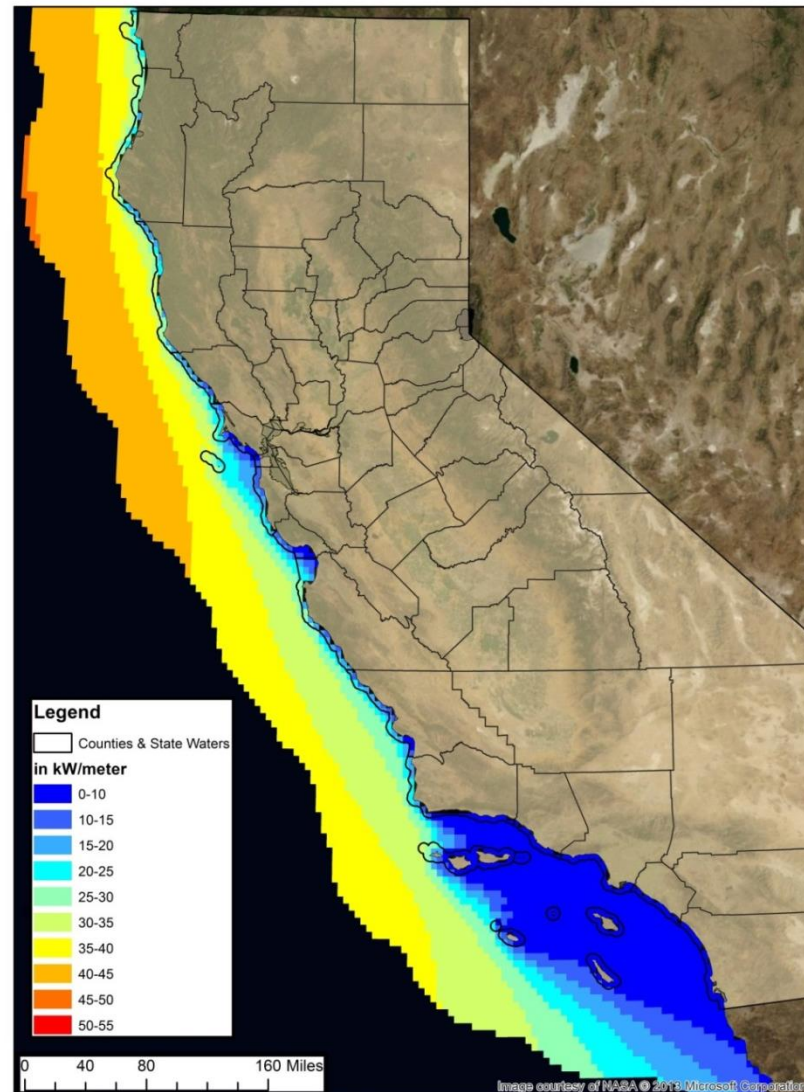


Wind Energy Resource



Data Sources:
Bing (Satellite Image)
California State Lands Commission (Counties & State Waters)
National Renewable Energy Laboratory (Offshore Wind Data)

Wave Energy Resource



Data Sources: US Department of Energy (Wave Energy Data)
California State Lands Commission (County and State Waters Data)
Bing (Satellite imagery)

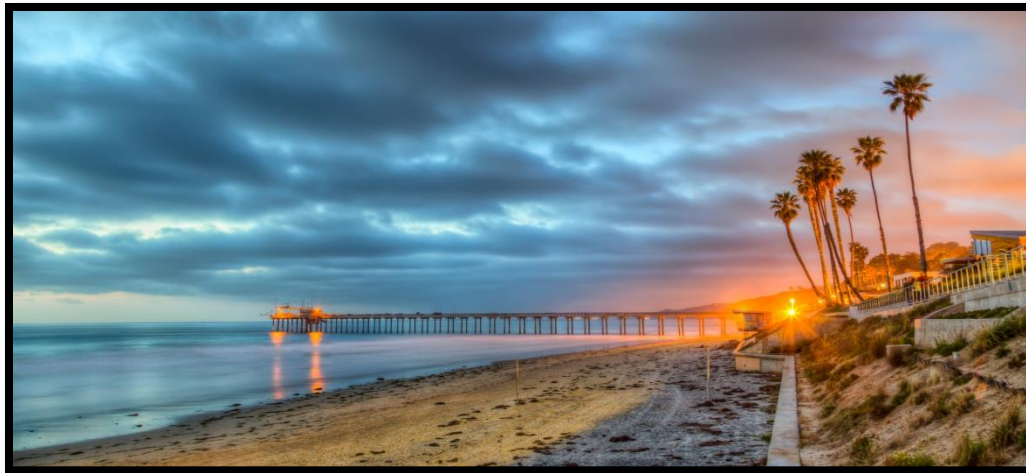
Areas of Interest

- Humboldt
- Morro Bay
- Santa Barbara County
(offshore Vandenberg
Air Force Base)



Leasing

- The Commission leases its property to applicants interested in constructing improvements
 - The Commission often acts as the California Environmental Quality Act lead agency for offshore projects



(State) Regulatory Process

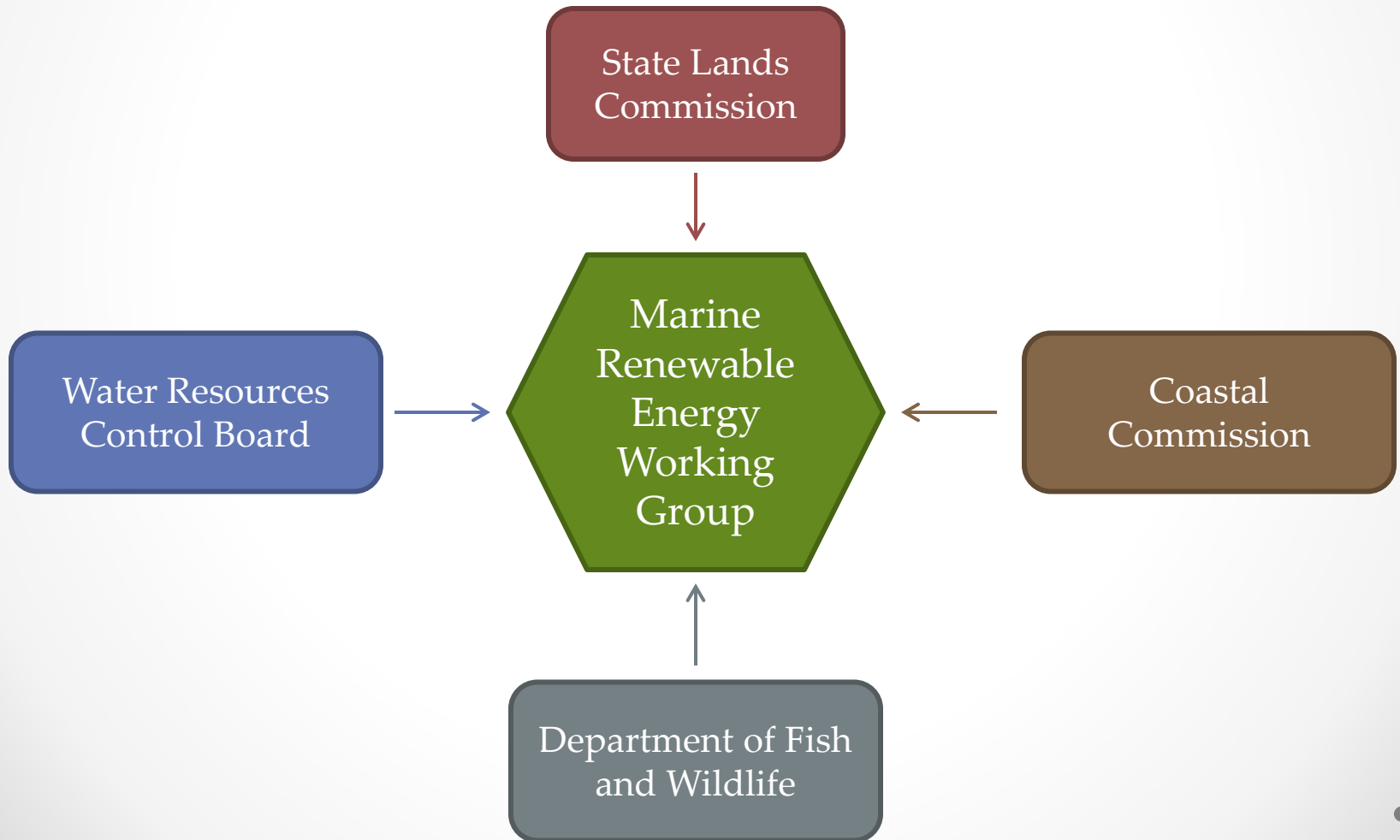
- In short: It's complicated



Photo Credit: Ocean Power Technologies

(State) Regulatory Process

- In short: It's complicated



Conclusion

- The Commission is:
 - Supportive of environmentally responsible offshore renewable energy development
 - An integral part of the regulatory process to make offshore renewable energy a reality in California

