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BOEM California Intergovernmental Renewable Energy Task Force Meeting

Task Force and Meeting Goals

October 13, 2016

Sacramento Convention Center,

Sacramento, California

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BOEM California Intergovernmental Renewable Energy Task Force Meeting

BOEM and California Offshore Renewable Energy Programs and Activities

Jean Thurston, Bureau of Ocean Energy Management

Susan Zaleski, Bureau of Ocean Energy Management

Scott Morgan, Governor's Office of Planning and Research

Chris Potter, California Ocean Protection Council

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Overview

- BOEM's Mission and Jurisdiction
- Task Force Purpose and Charter
- Offshore Renewable Energy Technologies
- Overview of Pacific OCS Region
- Typical Floating Offshore Wind Facility
- BOEM's Renewable Energy Leasing Process in California
- Pacific Region Environmental Studies Program
- California Ocean Renewable Energy Conference
- California Offshore Renewable Energy Activities

BOEM's Mission

Bureau within the Department of the Interior (DOI)

- Oversees development of nation's energy and mineral resources on the Outer Continental Shelf (OCS)

OCS Lands Act of 1953 as amended, including amendments per Energy Policy Act of 2005

- Renewable energy (leases, easements, ROWs)
- Marine minerals (e.g., sand and gravel)
- Conventional energy (e.g., oil and gas)

BOEM's Jurisdiction

OCS jurisdictional boundary is 3-200 nautical miles from the California coastline

BOEM has no jurisdiction within:

- National Park System
- National Wildlife Refuge System
- National Marine Sanctuary System
- Any National Monument

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Task Force Purpose

Members of state, local and tribal governments and Federal agencies participate

- Does not replace consultation under existing Federal laws and regulations

Forum to:

- **Discuss stakeholder issues** and concerns
- **Exchange data and information** about biological and physical resources, uses and priorities
- **Continual dialogue** about issues, concerns and collaboration opportunities

BOEM considers task force input in our renewable energy leasing decisions

Task Force Charter Components

BOEM California Intergovernmental Renewable Energy Task Force charter includes:

1. Authority and purpose
2. Immediate charge of action items for inaugural meeting
3. Subsequent activities of the Task Force
4. Membership and communication

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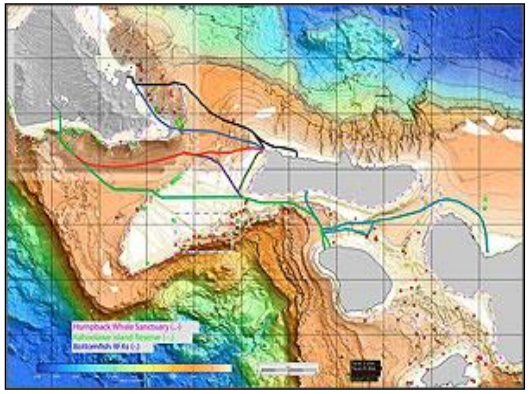
Offshore Renewable Energy Technology Examples

Wind

Ocean Current*

Transmission



Wave*

**BOEM is responsible for leasing areas of the OCS for ocean current and wave energy projects and FERC regulates and issues licenses for their operation.*

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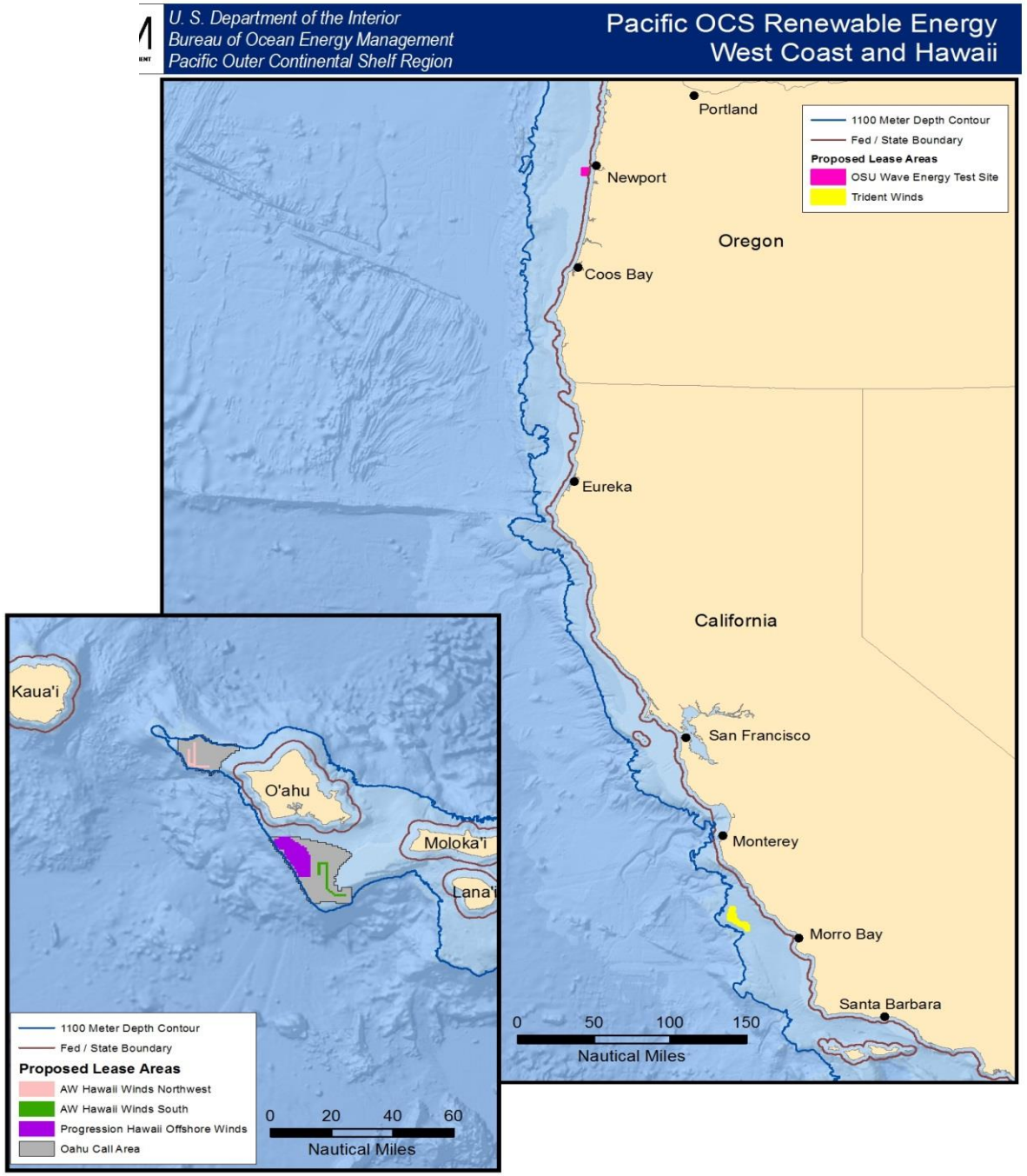

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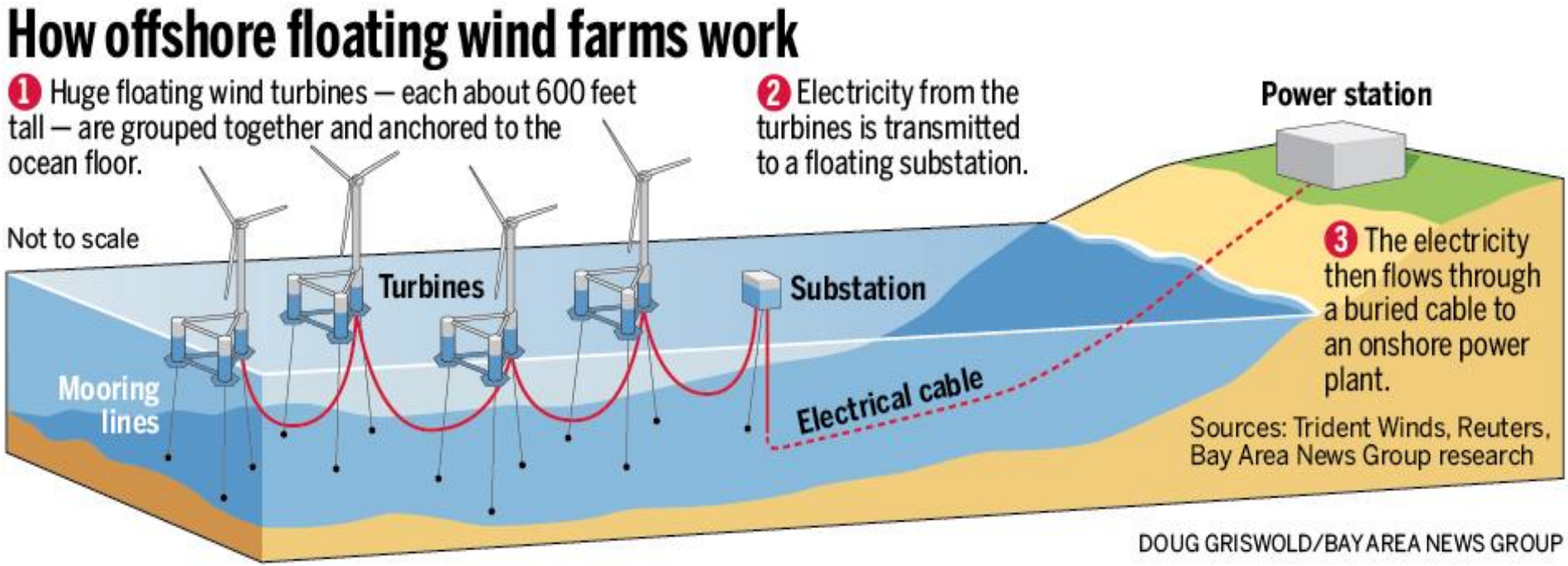
Typical Floating Offshore Wind Facility



BOEM Leases

BOEM issues three types of leases for renewable energy:

- Commercial leases
- Limited leases
- Research leases

How does someone obtain a lease on the OCS?

1. Submit an unsolicited lease request
2. Respond to a BOEM *Federal Register* notice

How does BOEM issue leases?

1. Non-competitive process
2. Competitive process

Competitive Leasing Process

Public Input Opportunity

Data and Information Collection
Collaborative effort focusing on central California

Public Input Opportunity

BOEM Call for Information and Nominations
45-day public comment period

Area Identification
Area BOEM may offer for lease

Public Input Opportunity

Environmental Review
Analyzes area(s) BOEM may offer for lease

Public Input Opportunity

BOEM Proposed Sale Notice
60-day public comment period

Final Sale Notice

Lease Sale / Auction

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Post-Auction Process

Lease Sale / Auction

Lessee Submits a Site Assessment Plan (SAP)

Site Assessment Plan Decision
BOEM may approve, disapprove or approve w/ modifications

Lessee Submits Construction and Operations Plan (COP)

Public Input Opportunity

Joint NEPA / CEQA Environmental Review
Analyzes Construction and Operation Plan

Construction and Operations Plan Decision
BOEM may approve, disapprove or approve w/ modifications

Program Goals for OCS Ocean Energy

Environmental Assessment and Environmental Studies:

- To predict, assess, and manage impacts from offshore energy production activities on …
- Human, marine, and coastal environments

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Resource Areas for NEPA Review

Physical

- Air Quality
- Water Quality

Biological

- Coastal Habitats
- **Benthic Resources**
- **Marine Mammals/Migration**
- **Sea Turtles**
- **Avian and Bat Species**
- **Fishes and Essential Fish Habitat (EFH)**

Socioeconomic

- **Cultural Resources**
- Military Uses
- Environmental Justice
- Land Use and Coastal Infrastructure
- **Construction Impacts (noise)**
- **Commercial and Recreational Fishing Activities**
- Aesthetics and Visual Impacts
- Demographics and Employment
- **Vessel traffic**
- **Transmission cables**

**Green highlights = issues mentioned during RFI comment period

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Pacific Region Environmental Studies

www.boem.gov/Pacific-Studies/

Perspective on Pacific Region Studies

- 1973 – 2016
- > 326 Studies Completed at> $ 145 M
- 31 Ongoing Studies ~ $ 18.9 M
  - 16 renewable energy ~ $ 10.0 M
  - 8 conventional energy~ $ 4.1 M
  - 7 both energy programs~ $ 4.8 M
- 6 Studies Planned for 2017 ~ $ 6.1 M
  - 5 renewable energy ~ $ 6.0 M
  - 1 both energy programs~ $ 0.1 M

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Pacific Region Strategic Research Priorities: Renewable Energy

- **Gather and synthesize existing data**
- **Determine data gaps and update information where needed**
- **Integrate studies across marine ecosystems and human dimensions**
- **New research and ongoing study examples:**
  - Renewable energy scenarios offshore central California
  - Seabird and marine mammal surveys in California
  - Effects of marine renewable energy technologies
  - Potential impacts of submarine power cables on crab harvest

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California
OCEAN • RENEWABLE • ENERGY
Conference

NOVEMBER 1–2, 2016
University of California, Davis

GOAL: Inform and improve collaboration among stakeholders in wind and wave energy offshore California

OBJECTIVES:

- Explain regulatory roles and processes
- Identify strategies for effective collaboration
- Describe energy resources and technologies
- Highlight scientific research

Agenda At-A-Glance

	Day 1: Regulatory Framework, Resources & Technology	Day 2: Environmental Sciences
Morning	Regulatory Framework	Human Dimensions
		Physical Science
Afternoon	Offshore Wind Energy Resources & Technology	Habitat Ecology
	Offshore Wave Energy Resources & Technology	Marine Wildlife

WHO: Federal, state, and local representatives; marine resource managers; scientists; engineers; energy planners; educators; and the public

REGISTRATION AND MORE INFORMATION:
www.boem.gov/CORE_Conference/
Register Online by October 26!
Free Admission

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California Complimentary Efforts

- Outreach, Stakeholder and Interested Parties
- Planning and Data Efforts
- GIS/Data Platform

All somewhat intertwined and supporting the State/Federal Task Force efforts.

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Outreach Interests

Looking for Diverse Stakeholder Involvement

- Non-Federal & Federal Tribes
- Conservation Groups
- Academia/Researchers
- Fishing and other Industries
- Local Governments
- Others?

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Landscape Planning Efforts & Data Collection

- DRECP
- San Joaquin Solar Lands
- RETI II

Looking at past experience to inform and guide landscape level planning for offshore wind energy and to support Task Force efforts.

Desert Renewable Energy Conservation Plan Gateway

Main DRECP Site

Search by keyword or location

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What is the DRECP gateway?

How is the gateway organized?

How do I get a copy of the BLM Proposed LUPA and FEIS?

Desert Renewable Energy Conservation Plan: BLM Proposed Land Use Plan Amendment and Final Environmental Impact Statement

BLM Proposed LUPA and FEIS

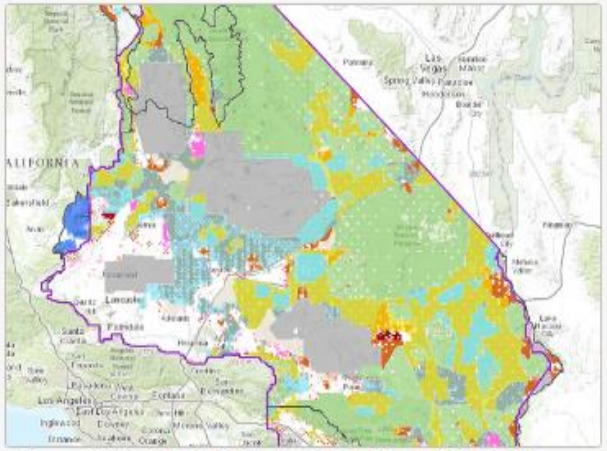


Figure II.3-1, DRECP Proposed LUPA and Final EIS, Integrated Preferred Alternative

Models

Terrestrial Intactness

▶ Introduction Video

Conservation Values

▶ Introduction Video

Applications

Renewable Energy Transmission Initiative (RETI) 2.0 Gateway

Main RETI 2.0 Site

Search by keyword or location

powered by DATA BASIN

What is the RETI 2.0 Gateway?

What can I do?

How do I start exploring?

The Renewable Energy Transmission Initiative (RETI) 2.0 Gateway supports the public process of the California Energy Commission, California Public Utilities Commission, and the California Independent System Operator to identify potential transmission that could access and integrate renewable energy with the most environmental, economic, and community benefits.

More about RETI 2.0

Get started quickly with the RETI 2.0 Gateway **Take a Tour**

Featured Items

Dataset

SuperCREZ

Dataset

Photovoltaic CEC

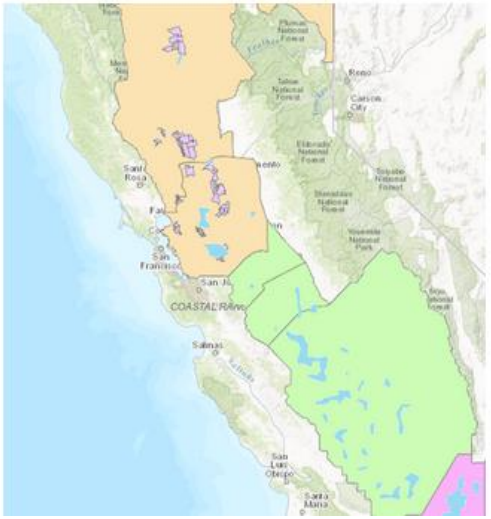
Dataset

California Augmented Multisource Landcover 2010

Dataset

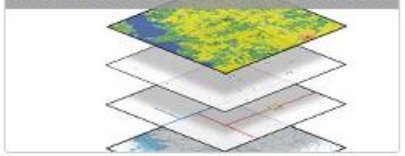
California Climate Exposure (Ensemble), 2016-2045

RETI 2.0 Draft Transmission Assessment Focus Areas Working Map



RETI 2.0 Land Cover/Land Use

RETI 2.0 Environmental Evaluation Data



RETI 2.0 Energy

Sign Up | Sign In | Support

San Joaquin Valley Gateway

Search by keyword or location

powered by DATA BASIN

Get Started | Explore | Create | Community | My Workspace

What is the San Joaquin Valley Gateway?

What can I do?

How do I start exploring?

The San Joaquin Gateway has been created to support a multi-stakeholder effort to identify least conflict lands for solar development in the San Joaquin Valley in Central California.

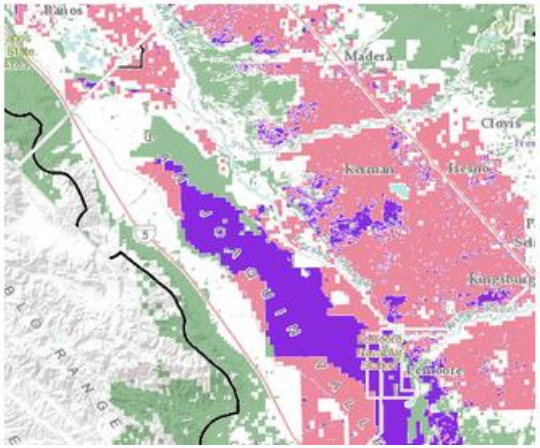
Get started quickly with the San Joaquin Valley Gateway **Take a Tour**

A PATH FORWARD

Identifying Least-Conflict Solar PV Development in California's San Joaquin Valley

Report | Appendices

Least Conflict Solar Composite



Presentations and Organizational Materials from the August and November Convenings

San Joaquin Valley - Farmland Conservation

San Joaquin Valley - Environmental Conservation

Featured Items

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San Joaquin Valley Gateway

Search by keyword or location

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Get Started | Explore | Create | Community | My Workspace

SJV GATEWAY | MEMBERS

Members *Contributing to conservation one map at a time.*

see all 16003 members

374 new members joined in the last month (3207 this year). In the last month, members have created 376 new datasets

Top Contributors This Month

Member

Conservation Biology Institute

Member

SouthAtlantic LCC

Admin with South Atlantic LCC

Member

Melissa Stepek

GIS Specialist & Contract Manager with San Diego Natural History Museum

Member

Daniel Murphy

Supervisory Fish & Wildlife Biologist with U.S. Fish and Wildlife Service

Member

Caribbean Landscape Conservation Cooperative

Member

Ian Johnson

Geospatial Analyst with NEMAC

Member

PacificSouthwestRegion

Multiple Administrators with US Fish and Wildlife Service

Member

AppLCC_admin

GIS/Data management with Appalachian LCC

Become a member today (it's free!) **Sign Up**

What Kinds of Organizations Are Using Data Basin?

New Members

Adam Hanbury-Brown

Student with UC Berkeley

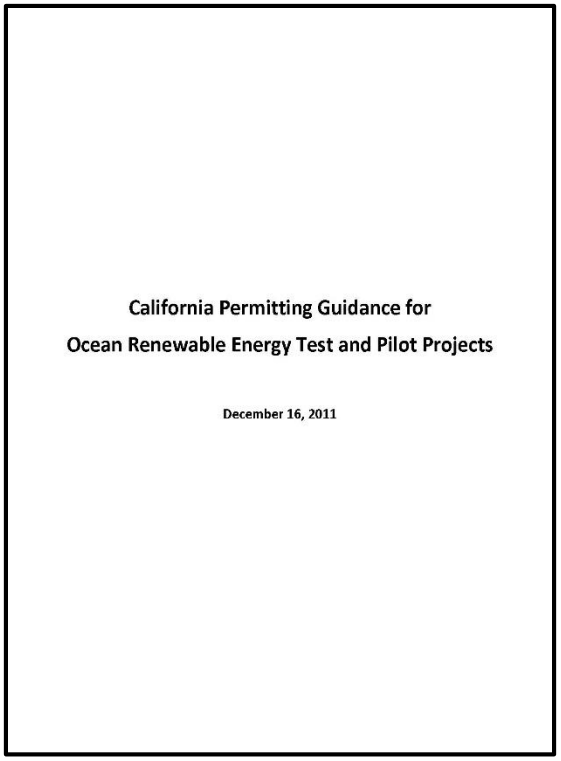
California Marine Renewable Energy Working Group

- Convened by the Ocean Protection Council in 2010
- Staff from state agencies involved in planning and regulating marine renewable energy development
- Goals
  - Address uncertainties in the regulatory processes and the information needs of state agencies and stakeholders
  - Facilitate the development of agreements and joint state-federal committees to improve coordination of state and federal permitting processes

CALIFORNIA OCEAN PROTECTION COUNCIL

California Marine Renewable Energy Working Group

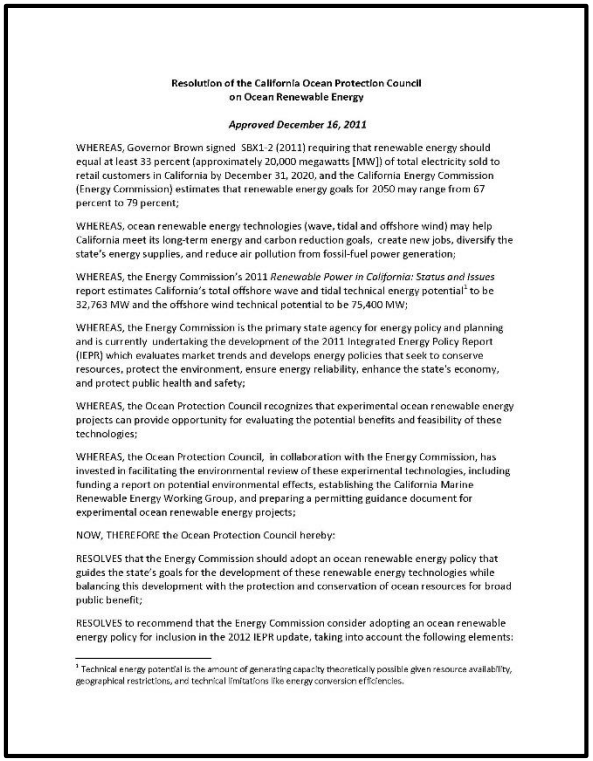
- Products



California Permitting Guidance for

Ocean Renewable Energy Test and Pilot Projects

December 16, 2011



Resolution of the California Ocean Protection Council on Ocean Renewable Energy

Approved December 16, 2011

WHEREAS, Governor Brown signed SBX1-2 (2011) requiring that renewable energy should equal at least 33 percent (approximately 20,000 megawatts [MW]) of total electricity sold to retail customers in California by December 31, 2020, and the California Energy Commission (Energy Commission) estimates that renewable energy goals for 2050 may range from 67 percent to 79 percent;

WHEREAS, ocean renewable energy technologies (wave, tidal and offshore wind) may help California meet its long-term energy and carbon reduction goals, create new jobs, diversify the state's energy supplies, and reduce air pollution from fossil-fuel power generation;

WHEREAS, the Energy Commission's 2011 *Renewable Power in California: Status and Issues* report estimates California's total offshore wave and tidal technical energy potential[1] to be 32,763 MW and the offshore wind technical potential to be 75,400 MW;

WHEREAS, the Energy Commission is the primary state agency for energy policy and planning and is currently undertaking the development of the 2011 Integrated Energy Policy Report (IEPR) which evaluates market trends and develops energy policies that seek to conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety;

WHEREAS, the Ocean Protection Council recognizes that experimental ocean renewable energy projects can provide opportunity for evaluating the potential benefits and feasibility of these technologies;

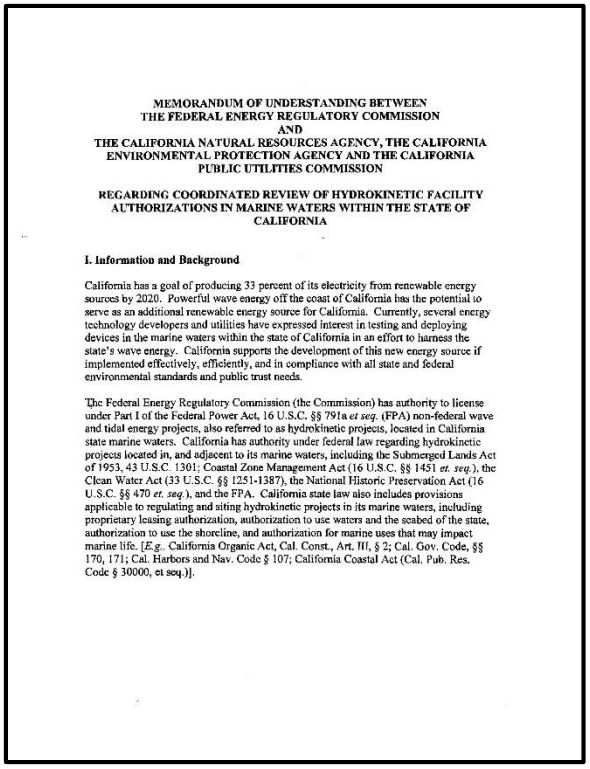
WHEREAS, the Ocean Protection Council, in collaboration with the Energy Commission, has invested in facilitating the environmental review of these experimental technologies, including funding a report on potential environmental effects, establishing the California Marine Renewable Energy Working Group, and preparing a permitting guidance document for experimental ocean renewable energy projects;

NOW, THEREFORE the Ocean Protection Council hereby:

RESOLVES that the Energy Commission should adopt an ocean renewable energy policy that guides the state's goals for the development of these renewable energy technologies while balancing this development with the protection and conservation of ocean resources for broad public benefit;

RESOLVES to recommend that the Energy Commission consider adopting an ocean renewable energy policy for inclusion in the 2012 IEPR update, taking into account the following elements:

[1] Technical energy potential is the amount of generating capacity theoretically possible given resource availability, geographical restrictions, and technical limitations like energy conversion efficiencies.



MEMORANDUM OF UNDERSTANDING BETWEEN THE FEDERAL ENERGY REGULATORY COMMISSION AND THE CALIFORNIA NATURAL RESOURCES AGENCY, THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY AND THE CALIFORNIA PUBLIC UTILITIES COMMISSION

REGARDING COORDINATED REVIEW OF HYDROKINETIC FACILITY AUTHORIZATIONS IN MARINE WATERS WITHIN THE STATE OF CALIFORNIA

I. Information and Background

California has a goal of producing 33 percent of its electricity from renewable energy sources by 2020. Powerful wave energy off the coast of California has the potential to serve as an additional renewable energy source for California. Currently, several energy technology developers and utilities have expressed interest in testing and deploying devices in the marine waters within the state of California in an effort to harness the state's wave energy. California supports the development of this new energy source if implemented effectively, efficiently, and in compliance with all state and federal environmental standards and public trust needs.

The Federal Energy Regulatory Commission (the Commission) has authority to license under Part I of the Federal Power Act, 16 U.S.C. §§ 791a *et seq.* (FPA) non-federal wave and tidal energy projects, also referred to as hydrokinetic projects, located in California state marine waters. California has authority under federal law regarding hydrokinetic projects located in, and adjacent to its marine waters, including the Submerged Lands Act of 1953, 43 U.S.C. 1301; Coastal Zone Management Act (16 U.S.C. §§ 1451 *et. seq.*), the Clean Water Act (33 U.S.C. §§ 1251-1387), the National Historic Preservation Act (16 U.S.C. §§ 470 *et. seq.*), and the FPA. California state law also includes provisions applicable to regulating and siting hydrokinetic projects in its marine waters, including proprietary leasing authorization, authorization to use waters and the seabed of the state, authorization to use the shoreline, and authorization for marine uses that may impact marine life. [*E.g.*, California Organic Act, Cal. Const., Art. III, § 2; Cal. Gov. Code, §§ 170, 171; Cal. Harbors and Nav. Code § 107; California Coastal Act (Cal. Pub. Res. Code § 30000, et seq.)].

California Marine Renewable Energy Working Group

- Potential future activities:
  - Expand work group to include other agencies
  - Draft additional regulatory guidance
  - Work with scientific community on identify issues of concern
  - Outreach to the ocean community

CALIFORNIA OCEAN PROTECTION COUNCIL

California Marine Renewable Energy Working Group

Thank you!

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CALIFORNIA OCEAN PROTECTION COUNCIL

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