Outreach Summary Report

California Offshore Wind Energy Planning

Updated September 2018

BOEM
Bureau of Ocean Energy Management

Prepared by Kearns & West

Table of Contents

Executive Summary

In 2016, at the request of California Governor Edmund G. Brown, the Bureau of Ocean Energy Management (BOEM) established the BOEM California Intergovernmental Renewable Energy Task Force (California Task Force or Task Force). The Task Force includes members from federal, state, and local agencies, as well as federally-recognized tribes and provides critical information to the assessment of potential renewable energy development offshore California and to BOEM's decision-making process for leasing areas of the outer continental shelf and permitting offshore renewable energy projects. The Task Force also serves as a forum to discuss stakeholder issues and concerns; exchange data and information about biological and physical resources, ocean uses and priorities; and facilitate early and continual dialogue and collaboration opportunities.

At the Task Force's first meeting in October 2016, members affirmed that collaborative data gathering and outreach effort with local tribes, coastal communities, and other stakeholders would provide useful information for future California Task Force discussions. Subsequently, BOEM and the State worked with a group of Task Force members to identify outreach goals, target audiences, and activities to inform the creation of a Stakeholder Outreach Plan. The data gathering and outreach/engagement efforts shown in the Stakeholder Outreach Plan were designed to support BOEM's federal leasing process and the potential issuance of a "Call for Information and Nominations for Commercial Leasing for Wind Power Offshore California" in the *Federal Register*.

Between February 2017 and September 2018, BOEM and the State held 12 meetings with California tribes and 67 meetings with elected officials, commercial fishing community, mariners, academics and environmental groups, and the public. These meetings took place in Arcata, Crescent City, Eureka, Los Angeles, Morro Bay, Port San Luis, Oxnard, Sacramento, San Clemente, San Francisco, San Luis Obispo, and Santa Barbara. Table ES.1 provides a summary of these meetings.

Table ES.1 Summary of outreach and engagement meetings to support BOEM CA offshore wind energy planning.

Participants	Number of meetings
Public meetings/webinars	6
Fishing community	18
Elected officials	26
Academics	3
Tribes	12
Environmental groups	5
Maritime community	4

Science/Data Core Group	5
Total:	**79**

Key input and concerns received from public, tribal, and stakeholder engagement meetings are listed in the box and discussed in later sections.

- Stakeholders from a variety of sectors have a high level of interest in discussing the possible role and need for offshore wind in California's energy portfolio;
- There is a high level of concern from commercial fishing stakeholders about potential impacts to their current activities and long-term livelihood
- Participants from multiple sectors have concerns about potential environmental, visual, and noise impacts from offshore wind facilities;
- Many stakeholders expressed interest about potential impacts to existing maritime activities and routes, including potential impacts to Department of Defense activities;
- Elected officials and coastal community members were interested in both positive and negative economic impacts associated with development of offshore wind facilities; and
- Most stakeholders were unfamiliar with floating offshore wind technologies and wanted additional educational opportunities and information about their operation, use in other locations, potential impacts, and decommissioning.

1. Overview

1.1 Background

California has a long history of strong leadership and ambitious initiatives to fight climate change and advance renewable energy and alternative, clean fuel policies. In 2018, California passed legislation advancing the state's existing Renewables Portfolio Standard (RPS), which requires a specified percentage of the state's electricity to come from renewable energy resources, to 50 percent by 2025 and 60 percent by 2030, and established a 100 percent clean electricity goal for the state by December 31, 2045 [1]. Governor Brown also issued Executive Order B-55-18 in September 2018, establishing a new target to achieve carbon neutrality by 2045.

The Bureau of Ocean Energy Management (BOEM), with jurisdiction to authorize renewable energy projects on the Outer Continental Shelf (OCS), received the first formal notice of interest in renewable energy development offshore California in January 2016. In a May 12, 2016 letter to then-Department of Interior Secretary Sally Jewell, California Governor Edmund G. Brown requested formation of a federal-state government task force to facilitate coordination, planning and permitting of state and federal activities related to offshore renewable energy. In response, BOEM established the BOEM California Intergovernmental Renewable Energy Task Force (California Task Force or Task Force) as a partnership of state, local, and federal agencies, and federally recognized tribal governments. This Task Force provides critical information to the assessment of potential offshore renewable energy development offshore California and BOEM's decision-making process to lease areas of the outer continental shelf for offshore renewable energy development. It also serves as a forum to discuss stakeholder issues and concerns; exchange data and information about biological and physical resources, ocean uses and priorities; and facilitate early and continual dialogue and collaboration opportunities.

1.2 Data Gathering

BOEM and California held their first Task Force meeting in October 2016 to determine how the members could best collaborate to assess the potential for offshore wind development and to inform BOEM's decision-making process for identifying potential areas for offshore renewable energy development. Task Force members affirmed that collaborative data gathering and outreach efforts with tribes, coastal communities and other stakeholders would provide useful information for future discussions on potential offshore wind energy areas. Task Force members also identified a need for tribal outreach to include non-federally recognized tribes. To address this concern, the State formed the State Tribal Ocean Renewable Energy Working Group to gain input from both federally recognized and non-federally recognized tribal governments. California Task Force members also agreed that creating a California Offshore Wind Energy Gateway

[1] Chapter 312, Statutes of 2018 (SB 100, De Leon).

(https://caoffshorewind.databasin.org/) housing spatial datasets pertinent to offshore wind energy planning for California would help inform the public, stakeholders, California Task Force members on data used in the decision-making process and assist BOEM in identifying appropriate areas for offshore wind energy development.[2] BOEM and the State are pursuing a **data and information gathering effort along the entire California coast** focused on ecological and natural resources, coastal and marine management, fishing community, community values and traditional uses, and energy and physical setting.

1.3 Outreach and Engagement Planning and Activities

BOEM with other federal and state agencies identified outreach goals, target audiences, and activities in a stakeholder outreach plan. The plan focused outreach on the individuals and groups most likely to have sources of relevant data and affected by or have an interest in potential future offshore wind energy projects.

Between February 2017 and September 2018 BOEM and the State held meetings, webinars, and briefings with members of coastal communities, fishing communities, Native American tribes, local, state, and federal agencies, academics and scientists, environmental NGOs, and renewable energy developers. The timeline of meetings and the numbers and types of participants for each meeting are in Figures 1.1 through 1.4 below. Additional details on the engagement meetings are in **Appendix 3.**

The State of California took the lead on providing information to, and gathering initial input from, both federally recognized and non-federally recognized tribes in California. A summary of the outreach to Native American tribes, led by the State of California and including BOEM staff, is included in Section 4 (below) and in Appendix 4 of this report.

[2] Data Basin is an online, data sharing and mapping platform that allows state and federal agencies, interested stakeholders, and the public full access and use of data and information for problem solving, which in this case focuses on offshore wind energy planning in California.

Figure 1.1: BOEM CA Offshore Wind Energy Planning Outreach Meeting Timeline: October 2016 July 2017

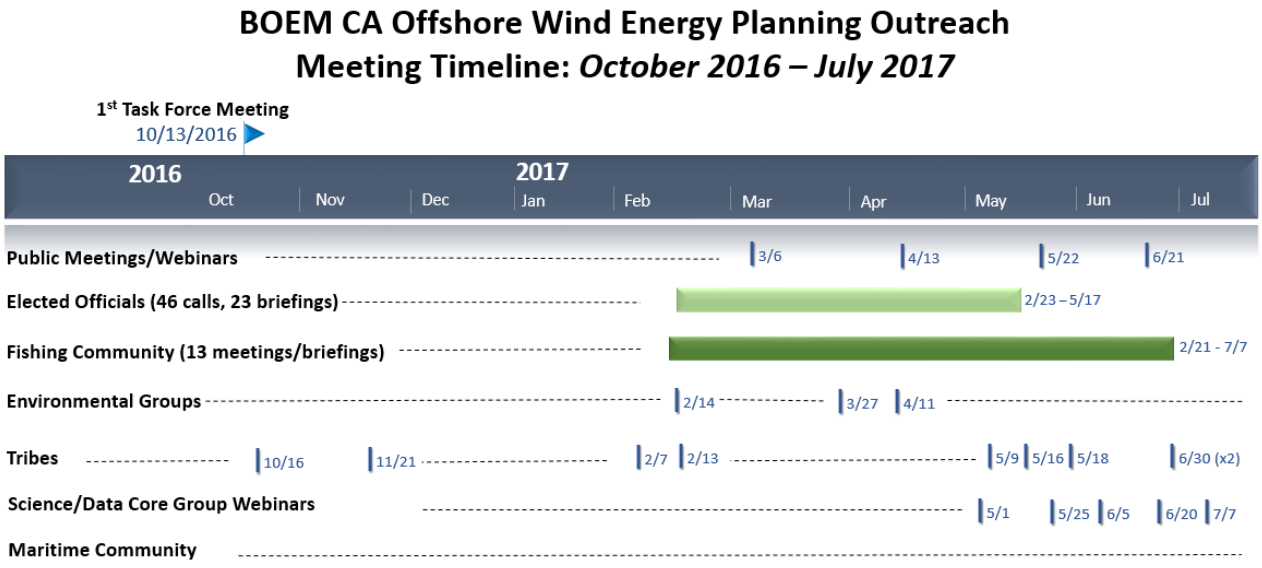


Figure 1.2: BOEM CA Offshore Wind Energy Planning Outreach Meeting Timeline: August 2017 – September 2018

Figure 1.3: BOEM CA Offshore Wind Energy Planning Outreach Stakeholder Meetings: October 2016 – September 2018

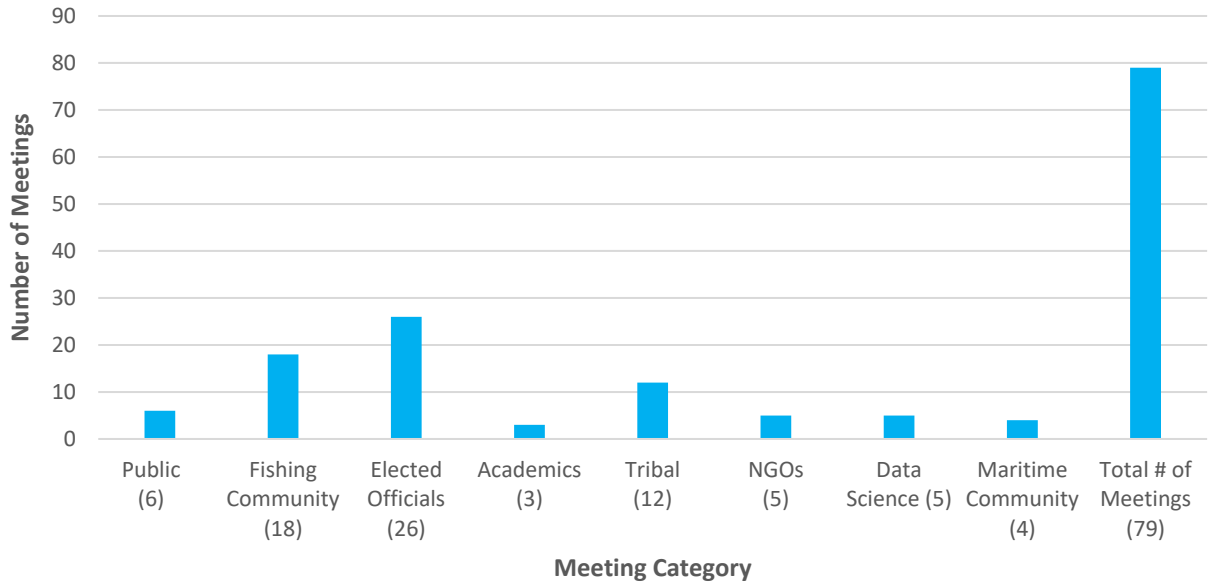
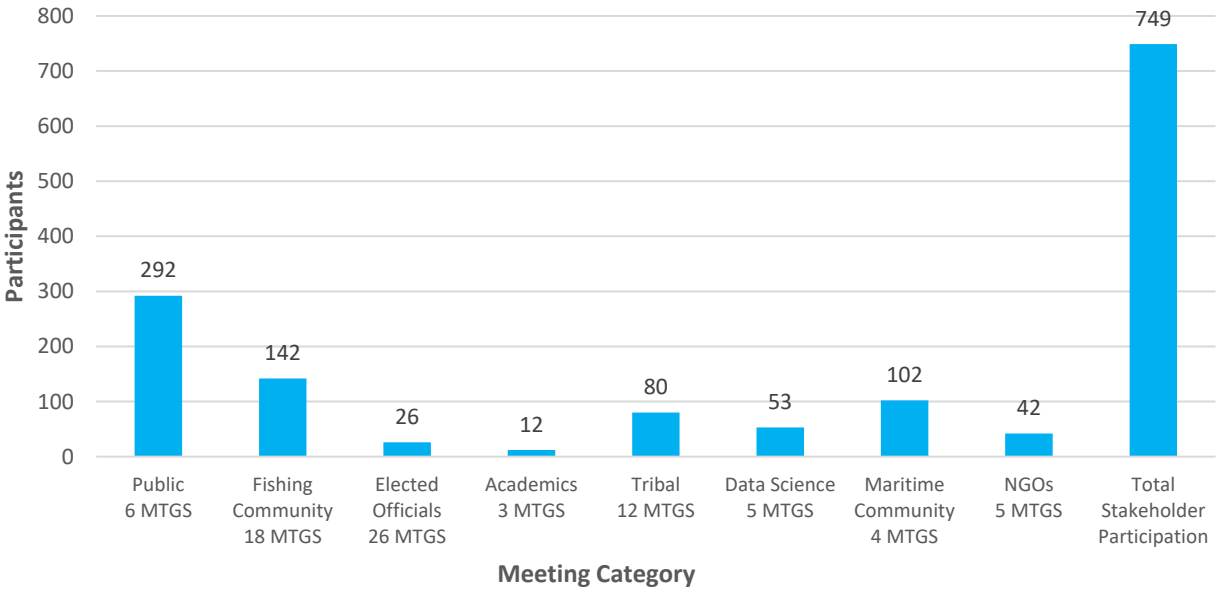


Figure 1.4: BOEM CA Offshore Wind Energy Planning Outreach Stakeholder Participation: October 2016 –September 2018



1.4 Outreach and Engagement Results

Outreach and engagement activities allowed BOEM and the State to share information on the California Task Force; the potential for offshore wind in California; data gathering efforts; BOEM's offshore wind leasing process and environmental reviews; state regulatory reviews; and to receive valuable feedback.

In terms of data gathering, the inquiries resulted in a significant number of referrals to other data providers and scientific experts in the realms of marine mammals, seabirds, and physical settings, as well as a large number of recommended datasets. The California Offshore Wind Energy Gateway (as of this writing) contains over 660 datasets[3] representing information offshore California. BOEM and the State continue to work with data scientists to ensure we have the most recent and valid data and to present the large quantity of information in the most useful fashion to inform decision-making and provide transparency to the public.

The outreach efforts prompted a variety of questions, concerns, and recommendations regarding developing offshore wind for California.[4] Primarily, stakeholders had concerns about potential conflicts with existing ocean uses (commercial fishing, shipping, environmental and cultural resources, etc.) and sought additional information about the mix of California's energy portfolio, how floating offshore wind facilities operate, how BOEM's offshore wind leasing and approval process works, and who makes decisions and has regulatory oversight of offshore wind facilities. BOEM and the State are continuing to solicit information and concerns about conflicts with existing uses to inform future offshore wind energy planning decisions.

Key input and concerns relayed during the outreach effort included

- A high level of interest in the possible role and need for offshore wind in California's energy portfolio across all stakeholder groups;
- Potential short-term and long-term impacts to the commercial fishing industry, current fishing activities, and livelihood;
- Impacts to cultural landscapes and areas of spiritual significance;
- Unknown and potential impacts to species, endangered species, breeding grounds, and habitats from construction and/or operational activities'
- Compatibility with and impacts to military training, testing and operational activities offshore California;
- Positive and negative economic impacts (jobs, tourism, redevelopment of local assets) associated with development of offshore wind facilities;
- Impacts to views from beaches, hills along coastline;
- Unknown and potential noise impacts on shore and on species from operational offshore wind facilities;

[3] The California Offshore Wind Energy Gateway contains some repetitive data sets. Additionally, not all data has been peer-reviewed and/or published in scientific journals.
[4] Initial input from Native American tribes in California are in Appendix 4.

- Potential impacts to existing maritime activities and routes;
- Operational durability of offshore facilities during ocean storms, specifically Northern California;
- Source of carbon-free energy that would help state combat climate change, replace local non-carbon-free generation sources, and strengthen local energy resiliency.
- General unfamiliarity with floating offshore wind technologies and desire for additional educational opportunities and information about their operation, experiences in other locations, potential impacts, and decommissioning.

1.5 Next Steps

Together, the data gathering and outreach efforts are designed to support a potential decision by BOEM to issue a "Call for Information and Nominations for Commercial Leasing for Wind Power Offshore California" (in accordance with the Department of Interior/California Memorandum of Understanding)[5] in the *Federal Register*.

This report summarizes the key themes gathered through this engagement process.

[5] Department of Interior/State of California Memorandum of Understanding: https://www.doi.gov/sites/doi.gov/files/uploads/mou_-_doi_and_state_of_calif_on_renewable_energy.pdf

2. Coastal Communities

BOEM and the State focused outreach (including local government officials, members of the public, environmental NGOs, and other stakeholders who live and work in coastal areas and would be impacted by offshore wind energy development)[6] on the North and Central Coast regions of California. The outreach effort initially focused on the Central Coast because of the commercial interest in that area, strong wind resources, and readily available existing transmission infrastructure. In late 2017, potential interest began in the North Coast area and in February 2018, the Redwood Coast Energy Authority issued a Request for Qualifications for a public-private partnership to pursue an offshore wind energy project off Humboldt County. Subsequently, outreach activities expanded to include the North Coast.

BOEM and the State participated in 79 meetings and briefings with various interested groups, including the public, tribes, governmental officials, mariners, and environmental groups in Arcata, Crescent City, Eureka, Los Angeles, Morro Bay, Oxnard, Port San Luis, Sacramento, San Clemente, San Francisco, San Luis Obispo, and Santa Barbara between February 2017 and September 2018. **Appendix 3** describes the types of meetings and the participants at meetings.

The following five subsections describe the majority of the feedback received.

2.1 Potential Conflicts with Existing Ocean Uses

Local elected officials, members of the public, and environmental groups shared concerns about offshore wind development having potential visual and noise impacts, potential impacts to the commercial fishing sector and to tourism, and interactions with nearby Marine Protected Areas (MPAs). Concerns also include potential conflicts with existing vessel traffic, aviation traffic and military training, testing, and operations off the California coast, specifically U.S. Air Force missions out of Vandenberg Air Force Base and U.S. Navy access to the ocean and space above it. Elected officials also inquired about economic impacts, both positive and negative, from offshore wind developments.

Some Central Coast community members inquired about the compatibility of offshore wind development with the proposed Chumash Heritage National Marine Sanctuary.[7] Environmental NGOs inquired about tradeoffs between offshore wind developments near Santa Barbara as opposed to San Luis Obispo. Additionally, environmental NGOs had numerous questions about potential effects of offshore wind on the environment, such as impacts of construction and operation noise on marine mammals and fish, and impacts to bird migration.

[6] Outreach to fishing communities is in section 3.

[7] The area of proposed protection is located between the Channel Islands National Marine Sanctuary and the Monterey Bay National Marine Sanctuary and out to the western slope of the Santa Lucia Bank.

2.2 California's Energy Portfolio

Participants in outreach meetings were curious about the State's energy portfolio and the potential role of offshore wind. These questions focused on whether offshore wind would be a cost-effective choice for ratepayers, who would pay if it were more expensive than other energy resources, and whether California should support a new technology such as floating offshore wind.

Some participants wondered whether onshore wind would provide an equivalent or even superior renewable energy resource for California, or whether wave energy would be a better choice. Local government entities inquired if leasing for offshore wind would generate revenues for the State or local governments. Lastly, coastal community members questioned whether the existing transmission infrastructure is sufficient to support the addition of offshore wind energy.

BOEM and the State provided information to stakeholders about the State's energy policies, power mix, and the review process for energy projects in California. Specifically, the State emphasized that it is implementing one of the most comprehensive and aggressive greenhouse gas emission reduction agendas in the world and has ambitious renewable energy goals. The "California Global Warming Solutions Act of 2006" requires the state to reduce greenhouse gas emissions to 1990 levels by 2020. Subsequent legislation created additional greenhouse gas emissions reduction targets: 40% below 1990 levels by 2030, and a further reduction to 80% below 1990 levels by 2050. Additionally, recent legislation in California (SB 100) requires that 60% of electricity sales be sourced from renewable energy by 2030 and sets a goal for 100% of electricity in California to be carbon-free by 2045. The state has commented that while offshore wind generation has great potential to help the state to meet its renewable energy and climate goals, any development must take into consideration the potential impacts to the state's coastline and ocean.

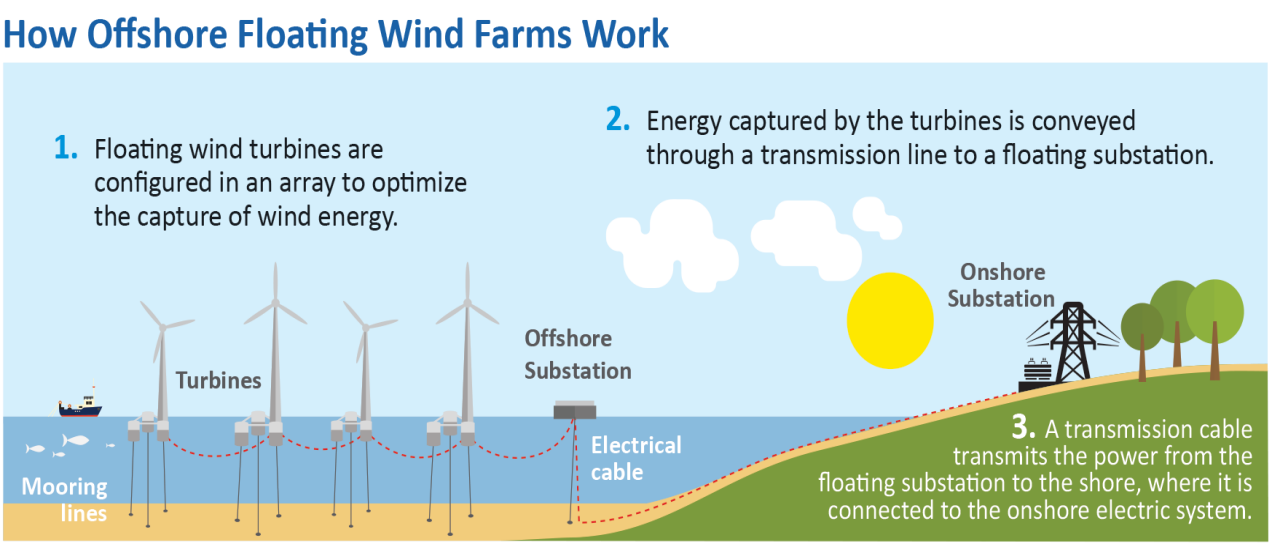
2.3 Floating Offshore Wind Technologies

Many of the meeting participants were unfamiliar with floating offshore wind technologies and asked about their use and testing to date, lessons learned from other installations, compatibility with other ocean uses, the European experience with offshore wind energy, risks to the environment, installation procedures and potential for co-location on existing oil platforms. Furthermore, some stakeholders mentioned concerns about electromagnetic interference from submarine cables on marine mammals and sharks in the area. A number of participants expressed interest in ensuring that decommissioning of these facilities would occur after use.

Overall, a number of the participants were curious about the technologies and felt the technology had potential to be an appropriate carbon -free energy source for California if sited and constructed carefully.

BOEM and the State provided information to stakeholders about the offshore wind industry and provided technology illustrations such as the one in Figure 2.1 below. The California Energy Commission also discussed their Memorandums of Agreement with Denmark and Scotland to share knowledge, experiences, best practices, and data relevant to the development of offshore wind facilities.[8]

Figure 2.1: Informational Graphic on How Offshore Floating Wind Farms Work



2.4 Decision-Making Process and Timeline

Coastal communities voiced considerable interest in being able to participate in decisions related to offshore wind energy development and in the planning and development process. Stakeholders inquired about opportunities in the process for the public to provide formal comments.

Additionally, stakeholders inquired about California Task Force membership and its process for informing BOEM's decisions on offshore wind energy leasing and development. (The attendance list from the October 2016 meeting is available at https://www.boem.gov/Attendees-for-BOEM-Interagency-TF/.) Some asked about whether the current federal administration is continuing to support offshore renewable energy development.

Lastly, environmental NGOs inquired about the decision-making process for the types and quality of data that uploaded into the California Offshore Wind Energy Gateway (see Section 4 below for further information).

[8] https://www.climatechange.ca.gov/climate_action_team/intergovernmental/MOU-Denmark_CEC_2018-04-30.pdf https://www.climatechange.ca.gov/climate_action_team/intergovernmental/MOU-Offshore_Wind_between_CEC_and_the_Government_of_Scotland.pdf

2.5 Regulatory Jurisdiction

Stakeholders want to ensure future review of offshore wind development by all relevant state and federal agencies. There was considerable interest in the role of state agencies in permitting, and who are the lead federal and state agencies would be for the environmental review of a project. Several stakeholders inquired about which agencies would provide oversight of the facilities during and after construction, to ensure safety.

2.6 Maritime Sector Engagement

The U.S. Coast Guard, as subject matter expert for offshore navigation and safety, has coordinated with BOEM and the State of California on outreach to the maritime sector. The maritime sector includes commercial vessel operators, port authorities and personnel, and Harbor Safety Committees. Maritime outreach meetings are in Table 2.1 below. Maritime stakeholders expressed interest in offshore wind technologies and the surface and subsurface area that could be occupied by projects, types of mooring/anchoring systems, and any requirements and/or restrictions within project boundaries that may be implemented by the U.S. Coast Guard (i.e., would vessels be allowed to transit between turbines, types of structural lighting, etc.).

BOEM's regulations require lessees provide a Navigational Safety Risk Assessment (NSRA) for a project. The U.S. Coast Guard reviews the NSRA. The U.S. Coast Guard District 11 participates on the California Task Force.

Table 2.1: Summary of Outreach Conducted with Maritime Stakeholders

	Meeting	Meeting Location	Date	Participants
1.	Maritime Outreach	Meeting	8/1/2017	Meeting with Los Angeles/Long Beach Harbor Safety Committee, Safety Subcommittee
2.	Maritime Outreach	Meeting	9/6/2017	Meeting with representatives of the Port of Hueneme
3.	Maritime Outreach	Meeting	10/4/2017	Meeting with Los Angeles/Long Beach Harbor Safety Committee (full committee)
4.	Maritime Outreach	Meeting	11/9/2017	Meeting with San Francisco Bay Harbor Safety Committee

2.7 U.S. Department of Defense Engagement

BOEM and the State have coordinated closely with the U.S. Department of Defense throughout the offshore wind planning process and they are active members of the California Task Force. The Office of the Secretary of Defense and representatives from the U.S. Marine Corps, U.S. Navy, and the U.S. Air Force participated in the Task Force meetings and were active participants in offshore wind outreach and engagement meetings in 2017 and 2018. Additional staff participated in workshops held by the California Energy Commission, and provided briefings and participated in meetings with BOEM and the State.

The Department of Defense issued an initial Mission Compatibility Assessment in 2017 evaluating the compatibility of offshore wind turbines with current and proposed military uses off California[9]. That Assessment showed that offshore wind development along the Central California would conflict with military testing, training and operations and compatibility conflicts could likely be managed on the north coast. The Department of Defense is also continuing to meet with developers, review more detailed project and operation plans, and determine if there are any actions to improve the feasibility of siting offshore wind power along the Central Coast. BOEM will consider this information and input in BOEM's offshore wind planning and leasing decisions.

http://navysustainability.dodlive.mil/files/2017/08/DON-Composite_CA-Offshore_8-JUN-2017-1.pdf [9]

3. Fishing Communities

BOEM and the State participated in 18 meetings and briefings with fishermen and fishing related organizations between February 2017 and September 2018. Table 3.1 below lists these meetings. BOEM and the State focused their engagement on fishing communities in Crescent City, Eureka, Morro Bay, Port San Luis, Sacramento, Santa Barbara, and San Clemente.

Table 3.1: Summary of Outreach Meetings with Fishing Community Stakeholders

No.	Meeting Location	Date	Participants
1.	Morro Bay	2/21/17	Morro Bay Commercial Fishermen's Organization, Morro Bay Harbor District, Central Coast Cable Committee
2.	Port San Luis	2/22/17	Port San Luis Harbor District, Port San Luis fishermen
3.	Santa Barbara	3/15/17	Commercial Fishermen of Santa Barbara
4.	San Clemente	3/23/17	California Fish and Game Commission Marine Resources Committee
5.	Phone	3/27/17	Alliance for Sustainable Fisheries
6.	Sacramento	3/28/17	Pacific Coast Federation of Fishermen's Associations
7.	Sacramento	4/6/17	Pacific Fisheries Management Council Habitat Committee
8.	Sacramento	4/7/17	Pacific Fisheries Management Council Groundfish Advisory Panel
9.	Santa Barbara	4/12/17	Southern California Trawlers' Association
10.	Van Nuys	4/27/17	California Fish and Game Commission
11.	Morro Bay	7/6/17	Morro Bay Commercial Fishermen's Organization
12.	Morro Bay	7/6/17	Morro Bay Harbor Advisory Board
13.	Port San Luis	7/7/17	Port San Luis Harbor District, Port San Luis fishermen
14.	Eureka	4/19/18	Humboldt Fishermen's Marketing Association
15.	Seattle	5/17/18	United Catcher Boats, Phoenix Processor Limited Partnership, Arctic Storm, Fury Group
16.	Crescent City	7/17/18	Crescent City fishermen

No.	Meeting Location	Date	Participants
17.	Crescent City	7/17/18	Crescent City Harbor District
18.	Eureka	7/18/18	Humboldt Fishermen's Marketing Association

3.1 Potential Conflicts with the Commercial Fishing Industry

Commercial fishing stakeholders consistently expressed concerns about potential loss of fishing grounds and entanglement of gear and voiced a desire for siting of wind energy projects in areas already closed off to or less used by fishing stakeholders. Some recommended consideration of other California coastal areas for offshore wind energy e.g., Bodega Bay, Crescent City, Santa Cruz.

Concerns included:

- **Will the U.S. Coast Guard prohibit vessel entry** through wind facility areas;
- Impacts on marine species from construction and operation activities;
- Wind turbines and associated mooring and anchoring facilities may result in **safety risks** to fishermen and their equipment;
- **Transmission cables** and **anchoring systems** may be snagged by fishing gear;
- rerouting of container ships to avoid facilities could cause displacement for fishing vessels;
- Facility infrastructure that is not fully decommissioned could result in ocean use conflicts;
- Physical stability of **floating turbine structures**, including ability to withstand high winds off the northern part of the State;
- Potential impacts to fishing operations due to construction staging activities; and
- **Cumulative effects of loss of fishing grounds** from National Marine Sanctuaries, State Marine Protected Areas, and other exclusion areas.

Commercial fishing stakeholders expressed a desire for compensation for both lost fishing grounds and time participating in public processes around offshore wind planning. They also expressed interest in learning how jurisdictions that have deployed offshore wind generating facilities mitigated impacts to fishing communities. Some suggested that a method of compensating for lost fishing grounds could be re-opening areas currently closed to fishing, in proportion to future areas that would be closed to fishing. Many felt that the existing agreement between telecommunication and fishing industries was a good case study on how to co-exist.

They also showed interest in reuse of existing infrastructure, such as siting wind facilities on existing oil platforms. In addition, some fishermen expressed interest in potential job creation from offshore wind energy development.

3.2 Representation of Fishing Data in the Data Basin Gateway

Fishing communities recommended a variety of fishing related datasets for inclusion in the Data Basin Gateway. Commercial fishers voiced concerns about the validity and time span of some data, and the potential that fishing related data may under-represent the value of certain fishing grounds. Based on these comments, BOEM and the state reviewed the data sets, determined some were not appropriate as used and removed them from the Offshore Wind Gateway. BOEM, the State, and fishing communities are continuing the data gathering and incorporation process.

3.3 California's Energy Portfolio

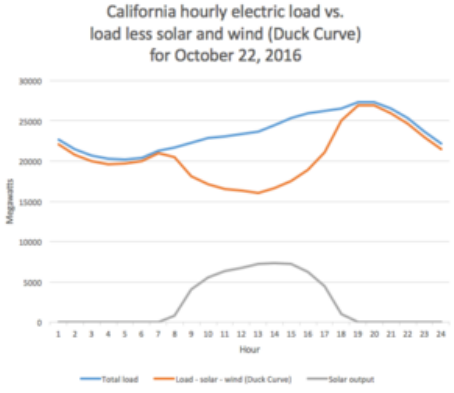
Similar to the other communities mentioned above, the fishing communities had questions about how offshore wind energy fits into California's energy profile,[10] including potential impacts to taxpayers if projects fail, cost-effectiveness of offshore wind in comparison to other electricity sources in the state, and the tradeoffs of having a lower carbon footprint (and whether the tradeoffs are worth it). Fishing communities also inquired about the degree of interest by commercial developers and how offshore wind projects are performing in other regions.

3.4 Decision-Making Process, Agencies Involved, and Timeline

As with other stakeholders, the fishing communities expressed interest in the California Task Force process. Key inquiries included the extent and sufficiency of outreach to fishing communities, representation of fishing interests on the California Task Force, Task Force membership and its process for providing input to BOEM, and the role of the U.S. Coast Guard on the California Task Force and in the offshore wind planning process more broadly.

---

[10] Some fishermen were referring to the dynamic illustrated by the Duck Curve, which graphs power production over the course of a day and illustrates the timing imbalance between peak demand and renewable energy production. In locations where a substantial amount of solar electric capacity has been installed, the amount of power that must be generated from sources other than solar or wind displays a rapid increase around sunset and peaks in the mid-evening hours. See the figure below as an illustration.



4. Tribal Outreach and Engagement

BOEM and the State conducted a variety of tribal outreach and engagement meetings as part of the Task Force effort. BOEM's efforts are below. **State efforts, including a full list of tribal concerns received by the State, are in Appendix 4** to this report.

4.1 BOEM Tribal Outreach in Support of California Offshore Renewable Energy

In support of offshore renewable energy development, in 2016 BOEM sent formal letters to all federally recognized tribes with known or potential ties and interest in the marine environment offshore California, inviting them to join the BOEM California Intergovernmental Renewable Energy Task Force.

The first Task Force meeting was held on October 13, 2016, and included representatives from six tribes, including: Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Coyote Valley Band of Pomo Indians, Santa Ynez Band of Chumash Indians, and Tolowa Dee-ni' Nation. In February 2017, BOEM held a Government-to-Government consultation meeting with the Santa Ynez Band of Chumash Indians Elders Council. The purpose of this meeting was to introduce offshore wind energy activity and address any questions the Tribe might have.

In September 2018, BOEM outreached via email and phone calls to federally recognized tribes with known or potential ties and interests in the marine environment offshore California to provide an update on offshore renewable energy planning activities and re-invite participation in the Task Force.

BOEM has worked closely with the California Energy Commission in its outreach efforts with tribes and participated in outreach meetings.

Key Results:

- Tribes are concerned about environmental and tribal cultural resources impacts throughout the entire process from construction to decommissioning.
- Tribes are concerned about being adequately involved in the process and being made aware of BOEM's process,
- Tribes want to participate early enough in the process that their input and issue discussions have meaningful effects.
- Tribes want to maintain the confidentiality of data regarding locations of cultural resources.
- Where possible, avoid tribal cultural resources.
- Tribes are interested in understanding the long-term consequences of offshore wind projects, including how they could affect future generations of tribal members.
- Tribes are concerned the data/studies gathered from existing offshore wind energy facilities may not be applicable to California projects.
- Tribes have concerns about removing earth from the ocean floor, as it may disrupt or damage submerged cultural resources.
- Tribes are concerned about impacts and disruption to marine life, other animals, and benthic habitats.
- The ocean and horizon viewsheds are sacred and important to the tribes and will be an important factor in project siting.

5. Data/Science Outreach

BOEM and California created and implemented the California Offshore Wind Energy Gateway to house spatial datasets; help inform the public, stakeholders, and Task Force members on data used in the decision-making process; facilitate the formation of formal comments; and assist BOEM in identifying appropriate areas for offshore wind energy development.[11] BOEM and the State gathered data and information on ecological and natural resources, coastal and marine management, fishing community, community values and traditional uses, wind resources, and physical setting.

BOEM and the State used a phased approach to gathering scientific data and information for inclusion in the California Offshore Wind Energy Gateway. BOEM and the State first conducted meetings with a variety of scientists across the state working in relevant topics, and then convened a Data/Science Core Group to provide advice to inform development of the California Offshore Wind Energy Gateway. A summary of these meetings is in Table 5.1

With support from the Conservation Biology Institute, BOEM and the State facilitated the Data/Science Core Group with representatives from the following entities:

- State agencies

[11] Data Basin is an online, data sharing and mapping platform that allows state and federal agencies, interested stakeholders, and the public full access and use of data and information for problem solving, which in this case focuses on offshore wind energy planning in California.

- Federal agencies
- Academia and research institutions
- Environmental groups
- Offshore wind energy developers

The Data/Science Core Group focused on commercial and recreational fishing catch numbers and densities; seabirds; physical setting; and marine mammals. The group also addressed whether the Gateway had the most relevant and up-to-date data for each topic (and if not, where to obtain it), whether the datasets were complete and scientifically appropriate for this planning process, and how the datasets could best be used. The group discussed whether the data were useful alone or best combined with other datasets to make the process more useful. Approximately 660 datasets are in the Gateway as of this report and recommendations for relevant scientific reports have also been included in the Data Basin.

In addition, BOEM and the State conducted two public webinars to present data and information available on the California Offshore Wind Energy Gateway, as detailed in section 2 of this report.

Table 5.1: Summary of Meetings Supporting Data/Science Outreach

No.	Meeting	Meeting Location	Date	Participants
1.	UCSB Academic Outreach	Santa Barbara	2/13/17	Academic Researchers, Scientists and Faculty, UC Santa Barbara, Coastal Long Term Ecological Research Project, CSU Channel Islands, Channel Islands Marine Sanctuary
2.	Cal Poly Academic Outreach	San Luis Obispo	2/14/17	Academic Researchers, Scientists and Faculty, Cal Poly San Luis Obispo, Institute for Advanced Technology and Public Policy (IATPP)
3.	Moss Landing Marine Outreach	Moss Landing	2/22/17	Academic Researchers, Scientists and Faculty, UC Santa Cruz, CSU Monterey Bay, Moss Landing Marine Lab, CSU San Jose, Monterey Bay Aquarium Research Institute (MBARI), Central and Northern California Ocean Observing System (CeNCOOS), Point Blue Conservation
4.	Webinar	Webinar	5/5/17	Data/Science Core Group
5.	Webinar	Webinar	5/25/17	Data/Science Core Group
6.	Webinar	Webinar	6/5/17	Data/Science Core Group
7.	Webinar	Webinar	6/20/17	Data/Science Core Group

8.	Webinar	Webinar	7/7/17	Data/Science Core Group

6. Next Steps

BOEM and the State will continue to collect and review data and solicit stakeholder and tribal feedback throughout BOEM's entire leasing process.

7. Appendices

Appendix 1: Data/Science Core Group Members

Federal	Organization/Agency	Individual(s)
	Bureau of Ocean Energy Management (BOEM)	Frank Pendleton, Susan Zaleski, Jean Thurston
	Bureau of Safety and Environmental Enforcement (BSEE)	Allison Fischman, Adam Boone
	National Marine Fisheries Service	Mimi D'Iorio
	National Oceanic and Atmospheric Administration	Lisa Wooninck
	U.S. Coast Guard	Tyrone Connor, Amy Wirts
	U.S. Department of Defense (DoD)	Scott Kiernan
	U.S. Fish and Wildlife Service	Tracy Borneman
State	Organization/Agency	Individual(s)
	California Coastal Commission	Kate Hucklebridge
	California Department of Fish and Wildlife	Brian Owens
	California Energy Commission	Scott Flint, Eli Harland
	California Natural Resources Agency, California Ocean Protection Council	Cyndi Dawson, Chris Potter
	California State Lands Commission	Jennifer Mattox, Philip Schlatter, Christopher Packer, Esther Essoudry
	Governor's Office of Planning and Research	Scott Morgan
Academics	Organization/Agency	Individual(s)
	California Sea Grant, UC Santa Cruz, UC San Diego	Carrie Pomeroy
	Cal Poly	Greg Brown, Ben Ruttenberg
	UC Santa Barbara	Maggie Klope, Hillary Young, Will McClintock

Environmental NGOs	Organization/Agency	Individual(s)
	Audubon California	Garry George
	Center for Biological Diversity	Shaye Wolf, Ileene Anderson
	Collaborative Ocean Planning	Anne Nelson
	Defenders of Wildlife	Kim Delfino, Jeff Aardahl
	EcoQuants	Ben Best
	Natural Resources Defense Council	Sandy Aylesworth
	The Nature Conservancy	Stephanie Dashiell, Mary Gleason
Developers	**Organization/Agency**	**Individual(s)**
	Statoil (Equinor)	Martin Goff

Appendix 2: Data/Science Core Group Terms of Reference

BOEM California Offshore Wind Energy Planning

Science and Data Core Group

Terms of Reference

Introduction

This Terms of Reference document describes the purpose, membership, roles and responsibilities, and proposed schedule and milestones for the BOEM California Offshore Wind Energy Science and Data "Core Group."

Background

On April 22, 2009, the Bureau of Ocean Energy Management (BOEM) within the U.S. Department of the Interior finalized the framework for overseeing renewable energy generation on the Outer Continental Shelf (OCS). (See 30 C.F.R. Part 585.) The framework established a federal program to issue leases, easements, and rights-of-way for orderly, safe, and environmentally responsible renewable energy development activities, such as the siting and construction of wind energy facilities on the OCS.

In a May 12, 2016 letter to Department of Interior Secretary Sally Jewell, California Governor Edmund G. Brown requested formation of a federal/state government task force to coordinate state and federal planning and permitting of offshore renewable energy. The BOEM California Intergovernmental Renewable Energy Task Force (Task Force) was created, and the first meeting of the Task Force was co-convened on October 13, 2016. Members of the Task Force include federal agencies, federally recognized tribal governments, and California state and local governments with a role that could be affected by or influence renewable energy development on the OCS. While the Task Force is not a decision-making body, its purpose includes providing a forum for exchanging data and information, and informing BOEM's decision-making process.

At the inaugural Task Force meeting, members reviewed the BOEM leasing process and discussed next steps in planning for wind energy development offshore California. Members agreed that creating a new California Offshore Wind Energy Gateway housing spatial datasets pertinent to offshore wind energy in California in the web-based, geospatial platform called Data Basin[12] would be an important step to inform the Task Force and assist BOEM in identifying appropriate areas for

[12] Data Basin is a functioning online, data sharing and mapping platform that allows state and federal agencies, interested stakeholders, and the public full access and use of data and information for problem solving, which in this case focuses on offshore wind energy planning in California.

offshore wind energy development off the California coast. BOEM and the State are now pursuing a data and information gathering effort along the entire California coast. Special emphasis is on examining the Central Coast because of commercial interest in that area, strong wind resources, and readily available existing transmission infrastructure. BOEM and the State seek to involve stakeholders in data gathering to inform offshore wind energy decisions.

The California Energy Commission (CEC) and BOEM California are interested in convening an Offshore Wind Energy Science and Data Core Group to help guide the identification and use of spatial data in Data Basin. Information from the Gateway will be used to help identify proposed "Call Areas" for potential offshore wind energy development that will be presented to the Task Force for consideration and discussion at its July 13, 2017 meeting.

Purpose of Core Group

The purpose of the Science and Data Core Group is to provide advice to inform development of the California Offshore Wind Energy Gateway (powered by Data Basin). We are seeking advice on a number of key data topics, which will be used to help identify and screen potential Call Areas. Questions include:

- For each topic, do we have the most relevant data and up-to-date versions? If not, where can we obtain it?
- Would you consider this (or these) datasets complete and scientifically appropriate for the screening exercise?
- How would you recommend they be used in performing the screening exercise?
- Is this data useful by itself, or is best combined with other datasets to make it process more useful?

Note: Core Group members are also invited to share data to populate the Gateway as well, although this role exists outside of the Core Group functions; one does not need to be a Core Group member to provide data.

Membership

Initial membership in the Core Group is by invitation. Participation is voluntary; members may participate in one or more meetings. Additional members may be added over time as needed. The aspiration is that the Core Group will be relatively small.

Core Group membership will come primarily from the following sectors:

- State agencies: e.g., CEC, OPC, CDFW, SLC, CCC
- Federal agencies: e.g., BOEM, DoD, NOAA
- Academia and research institutions
- Environmental NGOs
- Offshore wind developers

Roles and Responsibilities

Core Group members will:

- Participate in 3-4 webinar meetings between early May and the end of June 2017.
- Prepare for webinar meetings by reviewing advance materials (e.g., datasets on the Gateway) as requested.
- Provide feedback and advice to CEC staff and consultants on the Core Group calls.
- Incorporate data into the Gateway, as appropriate.

Kearns & West, process facilitators, will support the Core Group by:

- Assisting in recruiting Core Group members.
- Assisting in scheduling, planning, facilitating, and capturing key outcomes from Core Group meetings.
- Assisting the CEC in providing periodic email updates on the development, accessibility, and use of Data Basin.

Accessing the Data Basin Gateway

The California Offshore Renewable Wind Energy Gateway is now available and linked to the California Energy Commission website. The Gateway assembles geospatial information on ocean wind resources, ecological and natural resources, ocean commercial and recreational uses, and community values. The CEC is currently working with its contractor CBI, BOEM, and other California agencies to populate data on the Gateway. More data will be available soon.

To utilize the tool and enter data, you can enter the Gateway and create a free Data Basin membership account (click the "Sign Up" button in the upper right hand corner of the home page). If you choose not to create a membership account, you may still explore the tool, but will not have data entry capabilities.

Provisional Schedule and Milestones

The following milestones will guide the Core Group's anticipated work in alignment with BOEM and California's outreach and data collection goals:

- Invitations sent to Core Group members (April)
- *Core Group Meeting #1* (May 5th, 1-3 PM). Meeting objectives include:
    - Introduce the Gateway and Data Basin
    - Describe current data
    - BOEM presentation on how BOEM uses data to inform wind energy leasing decisions
    - Identify relevant datasets
    - Review how participants can provide datasets

- *Group Meeting #2, #3 (and #4 as needed)* (May 25th, 1-3 PM/June 5th, 11-1 PM). Meeting objectives include:
    - Review one or more of the categories below (TBD)
    - Walk through assembled datasets and answer posed data questions
    - Identify and discuss any ongoing research that could inform the process
    - Identify and discuss important data gaps
    - Summarize discussion points and develop action items

Core Group meetings will focus on the various thematic categories, including: Ecological and Natural Resources, Coastal and Marine Management, Community Values and Traditional Uses, and Energy & Physical Setting.

Appendix 3: Summary of All Outreach and Engagement Meetings

The specific goals of the stakeholder outreach and engagement activities listed in this Appendix include:

1. Informing stakeholders and tribes about the goals and activities of the California Task Force and offshore wind energy planning efforts in California.
2. Involving stakeholders and tribes in data gathering to inform offshore wind energy decisions, and develop a sense of shared ownership over, and confidence in, this information.
3. Data gathering will focus on the entire California coastline, with special emphasis for outreach and engagement on the north and central coasts.[13]
4. Soliciting stakeholder and tribal input regarding appropriate siting of offshore wind energy in California.

The table below lists the engagement meetings conducted as part of the overall BOEM CA outreach effort through September 2018. It lists the tribes or stakeholder constituencies participated, where the meeting was located, the date of the meeting, and generally who participated.

	Meeting	Meeting Location	Date	Participants
1.	Native American Tribe	Sacramento	10/13/16	Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Coyote Valley Band of Pomo Indians, Santa Ynez Band of Chumash Indians, and Tolowa Dee-ni' Nation
2.	Native American Tribe	Trinidad	11/21/16	Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Elk Valley Rancheria, Hoopa Valley Tribe, Cher-Ae Heights Indian Community of the Trinidad Rancheria (host), Yurok Tribe
3.	Native American Tribe	Solvang	2/13/17	Coastal Band of the Chumash Nation, Fernandeño Tataviam Band of Mission Indians, Gabrieleño Band of Mission Indians – Kizh Nation, Northern Chumash Tribal Council, Santa Ynez Band of Chumash Indians (host), Santa Ynez Band of Chumash Indians Elders Council, yak tityu tityu – Northern Chumash tribe

[13] As mentioned above, in 2018 the emphasis shifted to the North Coast based on input from DoD.

	Meeting	Meeting Location	Date	Participants
4.	Native American Tribe	Santa Ynez	2/7/17	Santa Ynez Band of Chumash Indians Elders Council
5.	UCSB Academic Outreach	Santa Barbara	2/13/17	Academic Researchers, Scientists and Faculty, UC Santa Barbara, Coastal Long Term Ecological Research Project, CSU Channel Islands, Channel Islands Marine Sanctuary
6.	Cal Poly Academic Outreach	San Luis Obispo	2/14/17	Academic Researchers, Scientists and Faculty, Cal Poly San Luis Obispo, Institute for Advanced Technology and Public Policy (IATPP)
7.	Environmental NGO Meeting	San Luis Obispo	2/14/17	Sierra Club, SLO Clean Energy, ECOSLO, Morro Coast Audubon Society, Environmental Defense Center, NRDC
8.	Governmental Briefing	Sacramento	2/16/17	San Luis Obispo County Supervisor Bruce Gibson
9.	Commercial Fishing Community Meeting	Morro Bay	2/21/17	Morro Bay Commercial Fishermen's Organization, Morro Bay Harbor District, Central Coast Cable Committee
10.	Commercial Fishing Community Meeting	Port San Luis	2/22/17	Port San Luis Harbor District, Port San Luis fishermen
11.	Moss Landing Marine Outreach	Moss Landing	2/22/17	Academic Researchers, Scientists and Faculty, UC Santa Cruz, CSU Monterey Bay, Moss Landing Marine Lab, CSU San Jose, Monterey Bay Aquarium Research Institute (MBARI), Central and Northern California Ocean Observing System (CeNCOOS), Point Blue Conservation
12.	Governmental Briefing	Sacramento	2/23/17	Marie Liu and Gabrielle Zeps, Consultants to California Assembly
13.	Governmental Briefing	Sacramento	2/23/17	Lawrence Lingbloom, Assembly Natural Resources Committee

	Meeting	Meeting Location	Date	Participants
14.	Governmental Briefing	Sacramento	2/23/17	Ryan Bradley, Staff for Representative Cunningham's Office
15.	Public Workshop	Sacramento	3/6/2017	Public Workshop in Sacramento at the California Energy Commission
16.	Governmental Briefing	Sacramento	3/6/17	Senator Hannah-Beth Jackson
17.	Governmental Briefing	Sacramento	3/6/17	Bill Craven and Katharine Moore, Consultants to Senate Natural Resources and Water Committee
18.	Governmental Briefing	Phone	3/9/17	Santa Barbara Mayor Helene Schneider
19.	Governmental Briefing	Phone	3/14/17	San Luis Obispo Mayor Heidi Harmon
20.	Commercial Fishing Community Meeting	Santa Barbara	3/15/17	Commercial Fishermen of Santa Barbara
21.	Governmental Briefing	Phone	3/20/17	Santa Barbara Councilmember Cathy Murillo
22.	Governmental Briefing	Morro Bay	3/23/17	Morro Bay Mayor Jamie Irons
23.	Governmental Briefing	Morro Bay	3/23/17	Morro Bay Councilmember John Headding
24.	Governmental Briefing	Morro Bay	3/23/17	Morro Bay Councilmember Robert Davis
25.	Governmental Briefing	Morro Bay	3/23/17	Morro Bay Councilmember Marlys McPherson
26.	Commercial Fishing Community Meeting	San Clemente	3/23/17	California Fish and Game Commission Marine Resources Committee

	Meeting	Meeting Location	Date	Participants
27.	Commercial Fishing Community Meeting	Phone	3/27/17	Alliance for Sustainable Fisheries
28.	Governmental Briefing	Phone	3/27/17	Monterey County Supervisor John Phillips
29.	Environmental NGO Meeting	Phone	3/27/17	Audubon Society Monterey Chapter, Sierra Club Ventana Chapter
30.	Governmental Briefing	Phone	3/27/17	Monterey County Supervisor Jane Parker
31.	Commercial Fishing Community Meeting	Sacramento	3/28/17	Pacific Coast Federation of Fishermen's Associations
32.	Governmental Briefing	Phone	4/4/17	San Luis Obispo County Supervisor John Peschong
33.	Fishing Community Meeting	Sacramento	4/6/17	Pacific Fisheries Management Council Habitat Committee
34.	Fishing Community Meeting	Sacramento	4/7/17	Pacific Fisheries Management Council Groundfish Advisory Panel
35.	Environmental NGO Meeting	Santa Barbara	4/11/17	Santa Barbara Channelkeeper, California Coastal Protection Network, Environmental Defense Center, Ocean Conservancy, Safe Energy Now, League of Women Voters Santa Barbara, Community Environmental Council, Santa Barbara Audubon, Sierra Club
36.	Commercial Fishing Community Meeting	Santa Barbara	4/12/17	Southern California Trawlers' Association

	Meeting	Meeting Location	Date	Participants
37.	Governmental Briefing	Santa Barbara	4/12/17	Santa Barbara County Supervisor Joan Hartmann
38.	Governmental Briefing	Santa Barbara	4/13/17	Santa Barbara County Supervisor Das Williams
39.	Governmental Briefing	San Luis Obispo	4/13/17	San Luis Obispo Councilmember Aaron Gomez
40.	Public Meeting	San Luis Obispo	4/13/17	Public Meeting in San Luis Obispo. Notification via BOEM and California Energy Commission listservs, email to offshore wind planning stakeholder database, and San Luis Obispo County press release.
41.	Governmental Briefing	Phone	4/26/17	Monterey County Supervisor Mary Ann Adams
42.	Fishing Community Meeting	Van Nuys	4/27/17	California Fish and Game Commission
43.	Governmental Briefing	Phone	4/27/17	Ventura County Supervisor Linda Parks
44.	Webinar	Webinar	5/5/17	Data/Science Core Group
45.	Native American Tribe	Monterey	5/9/17	Ohlone/Costanoan-Esselen Nation
46.	Governmental Briefing	Phone	5/15/17	San Luis Obispo County Supervisor Debbie Arnold
47.	Native American Tribe	Valley Center	5/16/17	Kwaaymii Laguna Band of Mission Indians, Pala Band of Mission Indians, Pechanga Band of Luiseño Indians of the Pechanga Reservation, Rincon Band of Luiseño Indians (host), San Luis Rey Band of Mission Indians, San Pasqual Band of Diegueño Mission Indians
48.	Governmental Briefing	Sacramento	5/17/17	Coastal Counties Regional Association Committee of the California State Association of Counties

	Meeting	Meeting Location	Date	Participants
49.	Native American Tribe	Rohnert Park	5/18/17	Federated Indians of Graton Rancheria (host), Middletown Rancheria of Pomo Indians
50.	Public Webinar	Webinar	5/22/17	Public Webinar. Notification via BOEM and California Energy Commission listservs.
51.	Webinar	Webinar	5/25/17	Data/Science Core Group
52.	Webinar	Webinar	6/5/17	Data/Science Core Group
53.	Webinar	Webinar	6/20/17	Data/Science Core Group
54.	Public Webinar	Webinar	6/21/17	Public Webinar. Notification via BOEM and California Energy Commission listservs.
55.	Native American Tribe	Webinar	6/30/17	Blue Lake Rancheria, Colorado River Indian Tribes, Dry Creek Rancheria, Elk Valley Rancheria, Las Vegas Paiute Tribe, Los Coyotes Band of Cahuilla and Cupeño Indians, North Fork Rancheria of Mono Indians, Yurok Tribe
56.	State Tribal Offshore Renewable Energy Working Group	Webinar	6/30/17	Blue Lake Rancheria, Campo Band of Diegueño Mission Indians, Coastal Band of the Chumash Nation, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Dry Creek Rancheria Band of Pomo Indians, Elk Valley Rancheria, Fort Bidwell Indian Community of Fort Bidwell Reservation, Gabrieleño Band of Mission Indians – Kizh Nation, North Fork Rancheria of Mono Indians of California, Ohlone/Costanoan-Esselen Nation, Pechanga Band of Luiseño Indians of the Pechanga Reservation, San Luis Rey Band of Mission Indians, yak tityu tityu – Northern Chumash Tribe
57.	Commercial Fishing Community Meeting	Morro Bay	7/6/17	Morro Bay Commercial Fishermen's Organization

	Meeting	Meeting Location	Date	Participants
58.	Fishing Community Meeting	Morro Bay	7/6/17	Morro Bay Harbor Advisory Board
59.	Commercial Fishing Community Meeting	Port San Luis	7/7/17	Port San Luis Harbor District, Port San Luis fishermen
60.	Webinar	Webinar	7/7/17	Data/Science Core Group
61.	Maritime Outreach	Meeting	8/1/2017	Meeting with Los Angeles/Long Beach Harbor Safety Committee, Safety Subcommittee.
62.	Maritime Outreach	Meeting	9/6/2017	Meeting with representative of the Port of Hueneme.
63.	Maritime Outreach	Meeting	10/4/2017	Meeting with Los Angeles/Long Beach Harbor Safety Committee (full committee).
64.	Maritime Outreach	Meeting	11/9/2017	Meeting with San Francisco Bay Harbor Safety Committee.
65.	Public Meeting	Eureka	4/18/18	Public Meeting in Eureka. Notification via BOEM's contact list for this process.
66.	Native American Tribe	Klamath	4/18/18	Yurok Tribe
67.	Environmental NGO Meeting	Eureka	4/19/18	Humboldt State University, Redwood Region Audubon, 350 Humboldt, Humboldt Baykeeper, Wild California, Surfrider Foundation, Defenders of Wildlife, Blue Lake Rancheria, Humboldt State University, Northcoast Environmental Center, Representative Huffman's Office, NOAA Fisheries, US Department of Defense
68.	Native American Tribe	Trinidad	4/19/18	Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Elk Valley Rancheria, Karuk Tribe, Tolowa Dee-ni' Nation, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Yurok Tribe

	Meeting	Meeting Location	Date	Participants
69.	Fishing Community Meeting	Eureka	4/19/18	Humboldt Fishermen's Marketing Association
70.	Fishing Community Meeting	Seattle	5/17/18	United Catcher Boats, Phoenix Processor Limited Partnership, Arctic Storm, Fury Group
71.	Fishing Community Meeting	Crescent City	7/17/18	Crescent City fishermen
72.	Fishing Community Meeting	Crescent City	7/17/18	Crescent City Harbor District
73.	Environmental NGO Meeting	Eureka	7/18/18	Northcoast Environmental Center, Redwood Region Audubon, Humboldt Baykeeper, Sierra Club
74.	Fishing Community Meeting	Eureka	7/18/18	Humboldt Fishermen's Marketing Association
75.	Public Meeting	Eureka	8/2/18	Public Meeting in Eureka. Notification via BOEM's contact list for this process.
76.	Government Briefing	Phone	8/28/18	Eureka Councilmember, Austin Allison
77.	Government Briefing	Phone	8/28/18	Arcata Councilmember Michael Winkler
78.	Government Briefing	Phone	8/31/18	Humboldt County District Supervisor Rex Bohn
79.	State Tribal Offshore Renewable Energy Working Group	Webinar	9/5/18	Blue Lake Rancheria, Cahuilla Band of Mission Indians, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Elk Valley Rancheria, Jamul Indian Village, Rincon Band of Luiseno Indians, Santa Ynez Band of Chumash Indians, yak tityu tityu – Northern Chumash Tribe, Yurok Tribe

Appendix 4: Offshore Renewable Energy off California's Coast – Initial Outreach with Tribes

Background

In May 2016, Governor Brown called for the creation of the California Intergovernmental Renewable Energy Task Force to coordinate state and federal planning and permitting of offshore renewable energy. In response, the Bureau of Ocean Energy Management (BOEM) established the BOEM California Intergovernmental Renewable Energy Task Force (California Task Force). While non- federally recognized tribes are not able to formally participate on the California Task Force, the State of California has an obligation to consult with all California Native American tribes regardless of federal recognition. As part of that effort, the California Energy Commission has taken the lead on providing information to, and gathering initial input from, both federally recognized and non- recognized tribes in California on offshore wind planning efforts.

Initial outreach activities focused on tribes whose current and/or ancestral territories are along the coast. The State hosted five regional informational meetings between November 21, 2016 and May 18, 2017 and a sixth webinar informational meeting for all California tribes on June 30, 2017.

Subsequent to the informational meetings, the Governor's Tribal Advisor and the Energy Commission formed a State Tribal Offshore Renewable Energy Working Group (Working Group) to gain input from federally and non-federally recognized tribes, inform the California offshore renewable energy planning efforts, and simplify the exchange of information between the State and tribes. The Working Group held its first webinar meeting on June 30, 2017 and a second on September 5, 2018. The Group will continue to convene on a parallel timeframe to future California Task Force meetings to facilitate additional tribal concerns and recommendations from both federally recognized and non-federally recognized tribes to be provided to California Task Force members.

Below is a list of tribes that participated in the informational and Working Group meetings, a map depicting the regions used for the informational meetings, and initial tribal concerns and recommendations.

Chart 1: Informational Meetings and Tribal Government Participants

Meeting Location	Date	Participants

W 	10/13/16	Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Coyote Valley Band of Pomo Indians, Santa Ynez Band of Chumash Indians, and Tolowa Dee-ni' Nation
Trinidad	11/21/16	Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Elk Valley Rancheria, Hoopa Valley Tribe, Cher-Ae Heights Indian Community of the Trinidad Rancheria (host), Yurok Tribe
Santa Ynez	2/7/17	Santa Ynez Band of Chumash Indians Elders Council
Solvang	2/13/17	Coastal Band of the Chumash Nation, Fernandeño Tataviam Band of Mission Indians, Gabrieleño Band of Mission Indians – Kizh Nation, Northern Chumash Tribal Council, Santa Ynez Band of Chumash Indians (host), Santa Ynez Band of Chumash Indians Elders Council, yak tityu tityu – Northern
Monterey	5/9/17	Ohlone/Costanoan-Esselen Nation
Valley Center	5/16/17	Kwaaymii Laguna Band of Mission Indians, Pala Band of Mission Indians, Pechanga Band of Luiseño Indians of the Pechanga Reservation, Rincon Band of Luiseño Indians (host), San Luis Rey Band of Mission Indians, San Pasqual Band of Diegueño Mission Indians
Rohnert Park	5/18/17	Federated Indians of Graton Rancheria (host), Middletown Rancheria of Pomo Indians
Webinar	6/30/17	Blue Lake Rancheria, Colorado River Indian Tribes, Dry Creek Rancheria, Elk Valley Rancheria, Las Vegas Paiute Tribe, Los Coyotes Band of Cahuilla and Cupeño Indians, North Fork Rancheria of Mono Indians, Yurok Tribe
Klamath	4/18/18	Yurok Tribe
Trinidad	4/19/18	Bear River Band, Blue Lake Rancheria, Elk Valley Rancheria, Karuk Tribe, Tolowa Dee-ni' Nation, Trinidad Rancheria, Yurok Tribe

Chart 2: Working Group Meeting and Tribal Government Participants

Meeting Location	Date	Participants

Webinar	6/30/17	Blue Lake Rancheria, Campo Band of Diegueño Mission Indians, Coastal Band of the Chumash Nation, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Dry Creek Rancheria Band of Pomo Indians, Elk Valley Rancheria, Fort Bidwell Indian Community of Fort Bidwell Reservation, Gabrieleño Band of Mission Indians – Kizh Nation, North Fork Rancheria of Mono Indians of California, Ohlone/Costanoan-Esselen Nation, Pechanga Band of Luiseño Indians of the Pechanga Reservation, San Luis Rey Band of Mission Indians, yak tityu tityu – Northern Chumash Tribe
Webinar	9/5/2018	Blue Lake Rancheria, Cahuilla Band of Mission Indians, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Elk Valley Rancheria, Jamul Indian Village, Rincon Band of Luiseno Indians, Santa Ynez Band of Chumash Indians, yak tityu tityu – Northern Chumash Tribe, Yurok Tribe

Figure 1: Offshore Renewable Energy Tribal Government Informational Meeting Regions

California Native American Tribal Initial Concerns and Recommendations

Below is a summary of concerns and recommendations received at the six informational meetings on offshore renewable energy from California Native American tribal representatives. Please note that while there are some broad themes, the concerns and recommendations offered were individual and not necessarily shared by or representative of all California Native American Tribes.

I. Planning and Siting Process

- Communication with the correct tribal representatives is important for the respect of tribal sovereignty and the efficiency of the consultation process.
- Early tribal consultation is important and required under state and federal laws during planning and specific project development.
- Limited staffing and financial barriers may affect further participation, such as not having the ability to attend meetings due to transportation and lodging costs.
- Tribes are concerned about understanding all moving parts of BOEM's process.
- Tribes are concerned that by the time Section 106 of the National Historic Preservation Act is triggered, a considerable amount of investment has already been made, thus

pitting tribes against commercial interests. If BOEM signs an agreement with developers before Section 106 is triggered, then that suggests to some the project is already in place.

- Tribal Working Group parallel structure will work if it is clearly defined with specific directives, well-coordinated, and has the ability to affect California Task Force proceedings.
- Will inland or non-coastal tribes pay more for energy than those on the coast?

II. Tribal Cultural Resources

- Agencies should consider tribal religious freedoms and related meaning of the ocean and horizon.
- Tribes in the interior of California also have connections to the ocean and are concerned about offshore planning efforts.
- Agencies need to look at all aspects of study areas to see a wider range of tribal resources, such as biological resources.
- Any model for cultural resource data collection should accommodate many tribes.
- Tribes are concerned about maintaining confidentiality of cultural resources information.
- Tribes are concerned about the protection of sensitive cultural resources.
- Tribes recommend non-invasive, culturally sensitive analysis of tribal cultural resources.
- Tribes recommend location of surficial, buried, and underwater archaeological and cultural resources, as well as areas of cultural sensitivity, be identified ahead of project siting through archival research in local histories and anthropological notes; ethnographic and oral history inquiries with tribal people; and researching tribal data previously collected by other agencies, universities, and environmental groups during past ocean-planning efforts.
- Tribes may designate areas for state or national historic registers that may affect specific siting locations.
- Avoidance of tribal cultural resources, where feasible, is preferred.
- Once cultural resources have been identified, appropriate buffers should be established in close consultation with affiliated tribes to avoid impacts.
- Projects should be sited with appropriate buffer areas from the known exterior boundaries of the resources.
- Conservation easements in culturally sensitive areas may be an effective mitigation

measure for impacts in areas of tribal concern and may overlap with biological resource mitigation.

- Cultural resources should be protected and preserved, including repatriation to a traditionally and culturally affiliated California Native American tribe, or Most Likely Descendent, if appropriate.
- Tribes recommend developing "inadvertent discovery" burial agreements with lead agencies and offshore renewable energy developers prior to project construction.
- Areas with nearby or offshore rock outcrops should be avoided. Such features are often cultural resources themselves, and frequently surficial, buried, or underwater archaeological deposits accompany rock outcrops.
- What are long-term consequences of offshore renewable projects and how they could affect future generations of Native Americans?

III. Environmental Impacts

- Tribes are concerned about environmental and tribal cultural resources impacts throughout the entire process from construction to decommissioning.
- Tribes are concerned that the data/studies gathered from existing offshore wind energy facilities along the coastlines of Europe and the U.S. East Coast may not be applicable to California projects, as California ocean floors are different (deeper closer to shore) and therefore cause data gaps.
- Tribes are concerned about general lack of information on the processes and methods involved in offshore wind energy development. This includes methods and processes involved in removing earth from the ocean floor, particularly as it concerns protecting and preserving potential subsurface tribal cultural resources.
- Is there any release of harmful gases that could arise from removing earth from the ocean floor? If yes, what is the possible effect(s) of those gases on marine and human life?
- What impacts and disruption could wind energy generation projects have on marine life, other animals, and benthic habitats?
- Will project designs consider noise and vibration effects on the sea floor and related marine life?
- What impacts could electromagnetic fields have on marine animals and whale migrations?

- Ocean and horizon viewsheds are sacred and important in religious understandings and ways of life.
- What are visible impacts of the wind turbines from beaches, coastline land, aviation beacons, and islands?
- Harbor development should properly consider impacts to onshore and underwater archaeology.

IV. Construction, Operation, and Decommissioning

- Can tribes include conditions for the construction phase?
- Will maintenance and operation plans be subject to tribal review and consultation once construction phases are complete?
- Request to be involved in project construction monitoring, as a mitigation measure, where avoidance is not feasible.
- Underwater cameras should be used for underwater monitoring so tribes are able to view the earth disturbing activities from onshore.
- Laboratories and soil processing areas should be placed onshore for monitors to observe what comes from the ocean floor.
- Will computer-operated offshore floating wind farms be adequately protected against shutdowns or cyberattacks?
- Decommissioning of renewable energy generation facilities must be conditioned to avoid damaging known cultural resources, remove all project elements, and ensure that the land is restored to a natural state as much as practically possible.