

January 28, 2019

Bureau of Ocean Energy Management, Office of Strategic Resources  
760 Paseo Camarillo, Suite 102  
Camarillo, California 93010  
*Comments submitted via [www.regulations.gov](http://www.regulations.gov)*

**RE: BOEM–2018–0045 -- Call for Information and Nominations for Commercial Leasing for Wind Power Development on the Outer Continental Shelf Offshore California.**

Dear Acting Director Cruickshank:

We appreciate the opportunity to submit comments on the Bureau of Ocean Energy Management’s Call for Information and Nominations for Commercial Leasing for Wind Power Development on the Outer Continental Shelf offshore California. The Call for Information and Nominations requests information and solicits developer interest for three potential offshore wind energy lease areas off California’s north and central coasts.

California has a long track record of leadership in combating climate change and achieving ever higher renewable energy goals, and has significant experience in working with multiple agencies and stakeholders to address complex renewable energy planning and permitting issues. Over the last ten years, more than 15,000 megawatts of renewable energy projects have come online in California. Our current energy targets include a 60 percent Renewables Portfolio Standard by 2030 and 100 percent clean energy by 2045.

California is committed to reaching its climate change and energy goals, and is very interested in exploring the potential of offshore wind energy to contribute to those goals. At the same time, the State is deeply committed to conserving and enhancing the tremendous natural resources, recreational, economic, scenic and other values of the coastal environment. California is blessed with an 1,100-mile coastline. With over 500 million visits a year to California beaches and approximately 85 percent of all Californians living or working in a coastal county, the State’s direct coastal and ocean economy is approximately \$44.2 billion.

**CA-BOEM Task Force Activities**

In light of the importance of renewable energy and the coastal environment to the State, we appreciate the Bureau of Ocean Energy Management’s willingness to partner with multiple state agencies, including the Energy Commission, Department of Fish and Wildlife, Ocean Protection Council, Coastal Commission, Office of Planning and Research, Public Utilities Commission, and State Lands Commission, to convene the BOEM-California Intergovernmental Renewable Energy Task Force, and to conduct extensive data collection and outreach in conjunction with the State over the last two years. These efforts have contributed greatly to increased awareness of the potential value of offshore wind development, helped identify potential environmental concerns, and informed the selection of the three potential offshore wind energy lease areas identified in the Call for Information and Nominations.

The next phase in the process includes the identification of Wind Energy Areas (WEAs) from the call areas and other areas that may be nominated in the call, and the execution of a competitive leasing process for one or more WEAs. The State will continue to work with BOEM and closely follow the development of WEAs and lease sales.

We also appreciate BOEM's development of the California Offshore Wind Energy Gateway in partnership with the State. This public data portal provides easy access to environmental and usage data, offers valuable transparency around the uses of the data and its limitations, and serves as a platform for sharing data and relevant analyses as the process continues. California has found this approach invaluable in multiple renewable energy planning processes, including the Desert Renewable Energy Conservation Plan and the San Joaquin Valley Least Conflict Solar Project.

### **Renewable Energy and Transmission Analytical Work**

From an energy perspective, offshore wind represents an opportunity to generate carbon free energy near coastal load centers, diversify the state's renewable energy portfolio, utilize existing onshore electrical infrastructure, and provide economic benefits in coastal communities. Of course, it will be necessary to consider the potential value of offshore wind to the state's overall energy system.

The California Public Utilities Commission will evaluate potential procurement of offshore wind in the State's Integrated Resource Planning (IRP) process. The IRP process uses robust modeling to determine the optimal energy infrastructure necessary to meet California's greenhouse gas reduction goals for the electricity sector at the lowest cost. To date, modeling has not included offshore wind, but we expect to use newly available offshore wind data in the 2021-2022 IRP planning cycle. The California Independent System Operator will also need to evaluate offshore wind development through its electric transmission planning process as part of the portfolios they receive from the California Public Utilities Commission IRP proceeding. In addition, individual generation development projects will need to submit Interconnection Requests to be studied in the California Independent System Operator generator interconnection process.

### **Next Steps**

We appreciate BOEM's close partnership with the State on outreach, data collection, and coordinating research and are pleased that this Call for Information and Nomination has been issued for public comment. The input submitted in response to this Call will provide valuable insight on developer interest, environmental challenges, use conflicts, and data needs.

As the leasing process proceeds, it is key that information necessary to assess potential environmental impacts be identified early and that any data gaps be addressed as quickly as possible. To facilitate this, the attachment to this letter provides more detailed comments and recommendations on specific issues identified by other state agencies participating in the Task Force. To that end, we urge BOEM to continue work with the State and other Task Force members to identify key studies and research opportunities that can be undertaken now to address these needs into the future.

Sincerely,



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Karen Douglas  
Commissioner  
California Energy Commission



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Cliff Rechtschaffen  
Commissioner  
California Public Utilities Commission

## ***ATTACHMENT – Specific Comments and Suggestions***

### **Science: Data Outreach, Collection and Review:**

To help inform BOEM and facilitate stakeholder outreach, the State has reviewed and assembled the existing data available for the California offshore and onshore marine environment. This data is available on the Conservation Biology Institute Data Basin Platform (Data Basin), at the California Offshore Wind Energy Gateway. Approximately 650 geospatial datasets are available here and existing key biological datasets for marine birds, and marine mammals, important habitat areas and onshore coastal resources are identified. There is also information for evaluating the technical feasibility of offshore wind, existing offshore marine infrastructure, coastal recreational use, and the existing onshore electric transmission system. This data is available to use as part of the information needed to evaluate the call areas, potential transmission connectivity, and to identify potential environmental effects as the WEAs are identified.

In addition, new information developed through the BOEM Science Research program is available, including the following studies:

- Completed (2016) — Developing and Applying a Vulnerability Index for Scaling the Possible Adverse Effects of Offshore Renewable Energy Projects on Seabirds on the Pacific OCS. Report (USGS OFR 2016-1154, BOEM 2016-043): <https://pubs.er.usgs.gov/publication/ofr20161154>
- Completed (2018) — California Current Cetacean and Ecosystem Assessment Survey and Use of Data to Produce and Validate Cetacean and Seabird Density Maps. Report (BOEM 2018-025): [https://espis.boem.gov/final%20reports/BOEM\\_2018-025.pdf](https://espis.boem.gov/final%20reports/BOEM_2018-025.pdf)
- Completed (2018) — Environmental Sensitivity and Associated Risk to Habitats and Species on the Pacific West Coast and Hawaii with Offshore Floating Wind Technologies. Report (BOEM 2018-031):  
Volume 1: <https://www.boem.gov/BOEM-2018-031-Vol1/>  
Volume 2: <https://www.boem.gov/BOEM-2018-031-Vol2/>

BOEM and the State should continue to discuss and coordinate early on identifying relevant data, research needs, and research funding opportunities, in particular with the California Ocean Protection Council and the Energy Commission where there may be opportunities to partner and leverage funding.

Significant project assessment, siting and monitoring data for shallow water anchored projects is also available from existing offshore wind projects in Europe. Systematic review and evaluation of this data would help assess the call areas and any other nominated areas off the coast of California. Specifically, data on marine bird interactions with and/or avoidance of turbines may have transferability. In addition, information developed from monitoring the interactions of marine mammal species with offshore oil platforms in coastal areas of the United States may provide insight on potential marine mammal interactions with floating platform wind projects.

### **Initial Assessment of Potential Effects from Offshore Wind:**

In the current phase of the process, BOEM will conduct environmental evaluations of the call areas and any other areas nominated in the call. The following potential effects of offshore wind development should be assessed. Identifying them now, to the extent practicable, ensures that potential resource conflicts are disclosed and properly studied during the BOEM Leasing Process.

- Sound (Construction noise, Wave, Wind Vibrations during operations)
- Aerial Collisions and Habitat Displacement of Marine Birds (Wind Turbine Fields)
- Entanglement, Surface and sub-surface collisions, and habitat displacement of Marine Mammals (Floating Platforms, Anchor and Mooring Cables)
- Artificial Light effects on marine birds, fish, invertebrates (Aerial and Near Ocean Surface)
- Vessel Strikes on marine mammals (During Site Survey, Construction, O&M)
- Physical Habitat Disturbance of benthic environment (Turbine Platform Anchors, Submarine Transmission Lines)
- Electromagnetic Field Effect on Benthic Habitat and Biota (Submarine Transmission Line)
- Visual Impacts to Shoreline and Onshore Resources (Tribal ancestral landscapes, Parks, Scenic Highway)

**Specific Additional Data Needs:**

Additional data and information are needed to fully assess the potential effects of offshore wind projects in the call areas. These include the following:

- Marine Birds and Marine Mammals: Additional information on behavior (flight movement and flight height) and habitat use (feeding, roosting, congregation areas) is needed to assess interactions with wind turbines and floating platform technology and better identify potential effects on both marine birds and marine mammals.
- Evaluation of Commercial Fishing Use: The California Department of Fish and Wildlife (CDFW) performed a preliminary analysis on the available fishing data, primarily CDFW logbook and National Marine Fisheries Service West Coast Observer Program data. The initial evaluation indicates that the Humboldt call area is within an area with high economic value for the groundfish trawl fishery. Other fisheries nearby include the groundfish hook and line and pot fisheries, although these are adjacent to the call area. For the central coast call area, the Morro Bay site has markedly less fisheries conflicts than the Diablo Canyon site due to the higher level of fishing effort that occurs within the Diablo Canyon Call area. As with the Humboldt site, the central coast fisheries that will be affected by wind farm activities will be the groundfish trawl, hook and line, and pot fleets. As preliminary information indicates that development in the call areas could affect fisheries, continued and close coordination with CDFW, other resource agencies, and commercial fisheries constituents is needed to examine ways to refine existing datasets, prepare a comprehensive fisheries analysis, and collect new interview-based data from local fishing communities.
- Preliminary Visual Effects Assessment: Preliminary visual effect assessments are needed to better inform the state and federal agencies and stakeholders of the potential visibility of projects under different conditions and gauge possible effects on park facilities and other scenic coastal features.