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**Ocean Conservancy comment letter on 24-IEPR-04**

*Additional submitted attachment is included below.*

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August 22, 2024

Chair David Hochschild  
Vice Chair Siva Gunda  
California Energy Commission  
Docket Unit, MS-4  
Docket No. 24-IEPR-04  
715 P Street  
Sacramento, California 95814-5512

Dear Chair Hochschild and Vice Chair Gunda:

Thank you for the opportunity to provide input on the California Energy Commission (CEC)'s draft consultant report, *Wave and Tidal Energy: Evaluation of Feasibility, Costs, and Benefits*. Ocean Conservancy is a nonprofit organization based in Washington, DC, with an office in Santa Cruz and staff throughout California, working to create a healthy ocean protected by a more just world. We advocate for an environmentally responsible, rapid and just energy transition to clean ocean energy away from fossil fuels. We believe wave and tidal energy technologies can play an important role increasing coastal community access to renewable energy if developed appropriately.

Our comments on the draft report and state efforts to implement the provisions of the SB605 bill stem from the recommendations and principles of our policy brief, *Protecting the Ocean and Supporting Rural Coastal Communities Through Responsible Marine Renewable Energy*.<sup>1</sup> Although this brief has a broad perspective, there are applications to California and specific chapters from the draft report that we believe will help the state achieve its renewable energy goals in a manner that grows scientific understanding of environmental effects through monitoring, minimizes environmental and local user impacts, and equitably distributes the benefits of this renewable energy development.

### **Chapter 3: Transmission needs and transmission permitting requirements**

Because the development of wave and tidal energy technologies in California are in a pre-commercial state, this is an ideal time for long-term planning, including for transmission. Although offshore wind planning and development in California are already underway, regional transmission planning is in its early stages.<sup>2</sup> We encourage the CEC to address some of the grid integration challenges identified in Section 3.3 by assessing the technical feasibility of collocating wave and tidal energy devices and their associated transmission with offshore wind infrastructure. If technically possible, this potentially more efficient use of ocean space should be assessed to determine whether collocation can reduce ocean user conflict and environmental impacts. California state and federal permitting agencies, such as the Federal Energy Regulatory Commission and the Bureau of Ocean Energy Management, should coordinate to assess whether collocation would be possible and beneficial, and if so, develop permitting pathways and recommendations for doing so within current federal offshore wind transmission planning efforts.

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<sup>1</sup> <https://oceanconservancy.org/wp-content/uploads/2024/06/Marine-Renewable-Report-final.pdf>

<sup>2</sup> <https://www.energy.gov/gdo/west-coast-offshore-wind-transmission-planning>

## **Chapter 4: Permitting Requirements for Wave and Tidal Energy Projects**

As illustrated by the CEC draft consultant report, permitting wave and tidal energy projects in a manner that minimizes negative ocean and wildlife impacts requires input across many agencies. This organized summary of a complicated regulatory regime is much appreciated, and as wave and tidal project applications increase, an expansion of regulatory staff capacity and increased understanding of environmental effects will be needed to meet this demand and ensure responsible development. The draft report itself quotes the International Energy Agency Ocean Energy Systems initiative (OES)- Environmental 2020 State of the Science Report in Chapter 6, “agencies will need to ‘establish clear and mandatory elements of adaptive management plans, including the design of and conditions for post-installation monitoring, stakeholder engagement, information sharing, and thresholds for adaptive management intervention.’” Appropriate funding for hiring and training these key personnel to coordinate across agency jurisdictions will be critical. We also encourage the CEC to examine whether the Ocean Protection Council’s work to develop an offshore wind environmental monitoring expert panel, including the implementation of a comprehensive offshore wind environmental monitoring and research program,<sup>3</sup> can be leveraged to support data collection that will facilitate wave and tidal development.

In addition, we recommend the development of a formal process for interagency coordination through a state or federal task force, working group, or regional ocean partnership, such as the West Coast Ocean Alliance (WCOA), as these ocean projects cover many jurisdictions. These coordinating bodies can both create permitting efficiencies, and serve as convening spaces for reducing ocean user conflict, while increasing shared understanding of wave and tidal energy.

As mentioned in Section 4.2.1, the use of adaptive management in project permitting can be very useful and informative for deploying new technologies at pilot scale in the ocean environment. Ocean Conservancy recommends the CEC encourage regulatory agencies to use adaptive management processes coupled with comprehensive environmental monitoring when permitting pilot wave and tidal energy projects. This includes directing state regulatory agencies to collaborate with wave and tidal project developers to set specific environmental risk thresholds while requiring certain levels of environmental monitoring. These risks may include the potential for wildlife collision, noise pollution, electromagnetic field effects, habitat changes, wildlife entanglement, changes to oceanographic systems, and displacement of animals depending on the specific project.<sup>4</sup>

All non-proprietary data generated by these deployments, including information on the effect of the device installation, operation, and removal on the surrounding environment and wildlife, should be provided to public data repositories for analysis by outside parties. The CEC should also require this data be collected in a standardized format to facilitate analyses across multiple deployments. By doing so, the scientific community, regulators, and coastal communities can build the common understanding of potential impacts while enhancing the effectiveness of adaptive management and project monitoring to reduce unanticipated environmental impacts. This increased information will also help develop environmental mitigation technologies and measures for future use, and foster increased confidence and public acceptance needed for this emerging sector to grow.

## **Chapter 5: Economic and Workforce Development Needs**

As the wave and tidal energy sectors grow, the underlying supply chain and construction, operations and maintenance workforce will need to increase as well. As mentioned in Section 5.3, job training and career development will be needed for these new fields, and this presents an opportunity for the state of California to provide a just transition for certain marginalized communities to participate in these new industries. Ocean Conservancy encourages the CEC to support the development of these programs in

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<sup>3</sup> <https://calmatters.org/environment/2024/07/california-offshore-wind-plan-approved/>

<sup>4</sup> [https://tethys.pnnl.gov/sites/default/files/publications/OES-Environmental-2020-State-of-the-Science-Report\\_final.pdf](https://tethys.pnnl.gov/sites/default/files/publications/OES-Environmental-2020-State-of-the-Science-Report_final.pdf)

fenceline communities, such as those near ports and harbors, or rural coastal communities where job opportunities can be difficult to find. Ideally, these would be long-term careers that support these projects and other energy or maritime needs and be located nearby the deployed projects so that local residents can reap larger benefits from the project. This, along with secondary local infrastructure investments such as local road improvements, microgrid upgrades, or dockside improvements may help offset any local costs from the project.

The CEC, in partnership with federal agencies, should explore whether there are opportunities to incentivize investment in local workforce training and supply chain development. These could include tax incentives, or similar incentives available to the offshore wind industry.

## **Chapter 6: Monitoring Strategies to Gather Data for Evaluation of Environmental Impacts**

As mentioned above in our comments on Section 4.2.1, the shared information gleaned from comprehensive environmental monitoring and adaptive management can help close the information gaps identified in Chapter 6. While permitting requirements can ensure each ocean deployment yields valuable information, financial resources and incentives can increase the amount of environmental data generated as well as the number of device deployments.

Ocean Conservancy recommends the CEC leverage its Electric Program Investment Charge (EPIC) program and other resources to incentivize robust environmental monitoring efforts along with research and deployments of wave and tidal devices in the ocean. The next investment plan for EPIC runs from 2026-2030 and offers a timely opportunity to include wave and tidal technologies, accelerating their development. We also encourage the CEC to coordinate with the Department of Energy Water Power Technologies Office (WPTO) so that this state directed funding can fulfill the federal cost share requirements from WPTO grants.

## **Chapter 7: The Future of Marine Energy in California**

Community engagement is a critical component of developing a new industry in a public commons like the ocean. We encourage the efforts of the CEC to meaningfully engage Native American communities, coastal residents, and ocean user groups early and often to introduce them to the possible benefits, costs and effects associated with these energy projects. This engagement should continue throughout the permitting process.

As the CEC considers identifying suitable sea spaces for wave and tidal energy infrastructure by overlaying areas of technical resource availability, such as those found on the National Renewable Energy Lab Marine Energy Atlas,<sup>5</sup> with those of existing ocean use, Essential Fish Habitat, and endangered species habitat, minimizing conflicts will be crucial. Regional Ocean Partnerships such as the WCOA can provide venues to sort these out in inclusive, and planned manner.

Ocean Conservancy thanks the CEC and its consultants for drafting this report as an early step towards supporting additional clean ocean energy solutions in the state that address the climate crisis, and for providing the opportunity to provide input. We would be happy to engage with the CEC as it finalizes this study and advances wave and tidal energy development in the state.

Sincerely,

Ryan Ono  
Program Manager of Climate Policy  
Ocean Conservancy

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<sup>5</sup> <https://maps.nrel.gov/marine-energy-atlas/?vL=OmnidirectionalWavePowerMerged>