STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION

OCEAN PROTECTION COUNCIL

California Energy Commission
DOCKETED
12-EPIC-1
TN # 67324
SEP 27 2012

September 26, 2012

California Energy Commission
Dockets Office, MS-4
Re: Docket No. **12-EPIC-01**
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Electric Program Investment Charge (EPIC) Investment Plan

To Whom It May Concern:

Thank you for the opportunity to comment on the Draft EPIC Investment Plan (Plan). Staffs of the Ocean Protection Council (OPC) and California State Lands Commission (CSLC) have reviewed the Draft Plan and are pleased to see the inclusion of marine renewable energy (wave, tidal, and offshore wind energy) in the Plan. Funding from the EPIC program provides a significant opportunity for the California Energy Commission to partner with other state agencies, such as CSLC and OPC, to support the advancement of marine renewable energy technology testing and demonstration in California.

With this partnership vision in mind, CSLC and OPC staffs offer the following comments on the proposed funding initiatives.

- *Objective S.4.4 – Investigate the Economic, Environmental and Technical Barriers to Offshore Wind in California*. Recent advances in floating platform technology have bolstered interest in deep water offshore wind energy demonstration in California. At the same time, federal funding opportunities, such as the recently announced U.S. Department of Energy (DOE) $180 million for the advancement of offshore wind energy demonstration projects, can provide significant opportunity for a deep water offshore wind project to be deployed in our state. Therefore, CSLC and OPC staffs support funding for economic evaluations, environmental research, and technology need assessments that can inform the development of deep water offshore wind energy systems in California.

- *Objective S4.5 – Investigate the Economic, Environmental and Technical Barriers to Wave Energy Conversion in California*. As mentioned in the Draft Plan, permitting issues and lack of information associated with potential environmental impacts from

emerging wave energy conversion devices have been identified as key barriers to the advancement of hydrokinetic technologies. To address these barriers, CSLC and/or OPC have undertaken several initiatives including:

- **Memorandum of Understanding:** A Memorandum of Understanding was signed between the state of California and the Federal Energy Regulatory Commission on May 17, 2010 to coordinate timely processing of both federal and state applications regarding marine hydrokinetic projects.
- **California Marine Renewable Energy Working Group:** A working group was established which includes members from a number of different agencies, including the CSLC, OPC and California Energy Commission staff. The Working Group meets to coordinate permitting and acts as a central point of contact for marine renewable energy developers.
- **Marine Geospatial Data Portal:** The OPC is coordinating with a number of agencies, including the CSLC, to develop a data portal with geospatial information that would be useful to marine renewable energy developers for project siting (including conflicting use areas) and avoiding marine and coastal resource impacts.
- **California Permitting Guidance for Ocean Renewable Energy Test and Pilot projects:** The OPC, together with the CSLC and other state agencies, developed a brief guidance document, or "roadmap," describing different agencies' jurisdictions and the permitting process to assist developers who may be interested in pursuing an ocean energy test or pilot project in California.
- **Environmental Impacts:** A Sea Grant Fellow at the CSLC is currently drafting a document that synthesizes the existing literature and research related to the potential environmental effects of marine renewable energy devices and their infrastructure from the perspective of California Environmental Quality Act (CEQA) review and compliance.

CSLC and OPC staffs welcome additional support from the EPIC program for further environmental impact research and welcome partnership with the California Energy Commission to address gaps in this area. In addition, CSLC and OPC staffs encourage EPIC funding for further wave resource assessments, such as fine-scale wave resource assessments and mapping the wave energy resource along the California coast. Funding fine-scale mapping and assessments of wave energy resources would be effective on a number of levels. Fine-scale assessment and maps would promote effective siting for pilot and test projects, maximize the benefits of a test site or project, and make an analysis of the potential coastline and sediment transport impacts of a reduction in wave energy more feasible. The current wave resource maps available through the National Renewable Energy Laboratory are too coarse in scale to make siting decisions for test projects. Our staffs also encourage EPIC funding for evaluating transmission and grid connection for wave energy conversion technologies. Since coastal grid connection sites and subsea cables are

somewhat limited, it is important to consider this type of necessary infrastructure for wave energy development to be successful.

- *Objective S5.3 – Develop Analytical Tools and Technologies to Reduce Energy Stresses on Aquatic Resources and Improve Water-Energy Management*. As mentioned above, CSLC and OPC have undertaken several efforts to compile existing information on the environmental stresses that may result from offshore wind and wave energy conversion technologies, but there is clearly a need for obtaining additional ecological information both before and during pilot project deployment. Leveraging the resources and expertise of the state's marine research institutions and coupling this with funding from the EPIC program could provide a significant opportunity for gathering this type of information and contributing to the overall advancement of these industries.

- *Objective S10.2 –Support Demonstration Testing and Verification Centers to Accelerate the Deployment of Pre-Commercial Clean Energy Technologies*. CSLC and OPC staffs support funding for demonstration testing and verification centers. Many marine renewable energy technologies are in the open-water demonstration and testing phase, and would likely use a testing and verification center, if available in California. In addition, using this strategy to complement Strategic Objective 4.5, to provide environmental impacts monitoring and research to improve CEQA evaluation for later pilot and utility scale projects would be beneficial for accelerating the development of marine renewable energy technologies. Demonstration and testing centers also provide opportunities for building and/or leveraging networks of California-based expertise and resources. These include some of the world's premier marine research centers (within the University of California and the California State University systems and our state's community colleges), robust port infrastructure and facilities, marine engineering expertise, and Department of Defense bases that share aggressive renewable energy goals and some grid connection and transmission infrastructure. Together these entities can support the development and implementation of a test center and the advancement of marine renewable energy technologies.

- *Objective S10.3 –Provide Cost Share for Federal Awards*.

  CSLC and OPC staffs strongly support the use of EPIC funds to leverage federal funding opportunities. The DOE and Department of Defense both provide opportunities through research grants or other means to advance marine renewable energy in California. Creating a state level funding source as a cost-share or match makes California more competitive when developing partnerships with federal agencies or applying for federal funding.

More Information about CLSC and OPC

CSLC

The CSLC is engaged on the topic of marine renewable energy because of its jurisdiction and the State's interest in advancing the development and use of renewable energy, including marine renewable technologies to meet its carbon reduction goals. The CSLC is also in a unique position to assist the California Energy Commission n reaching the State's renewable energy goals and generating non-tax revenues at the same time.

The CSLC was created in 1938 as an independent body consisting of the Lt. Governor, State Controller and Director of Finance. The CSLC has jurisdiction and management authority over all the State's ungranted tidelands and submerged lands, and the beds of navigable lakes and waterways. The CSLC has certain residual and review authority for tide and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code §§ 6301, 6306). All tide and submerged land, granted or ungranted, as well as navigable rivers, sloughs, etc., are impressed with the common law Public Trust Doctrine. While the CSLC has some regulatory functions, principally it is a land and resource management agency. A primary function of CSLC staff is to negotiate leases and contracts for the use of the State's property and resources and make recommendations to the Commission. The Commission manages the State's sovereign public trust lands, which include approximately 120 rivers and sloughs, 40 lakes, and lands along over 1000 miles of coastline underlying the Pacific Ocean out to 3 nautical miles, together encompassing approximately 4 million acres.

The CSLC strives to balance the goals of maximizing the return on the use of State lands and resources entrusted to its care with providing the highest possible level of environmental and resource enhancement and protection of the lands for current and future generations.

OPC

The OPC is a cabinet level state body established pursuant to the 2004 *California Ocean Protection Act* (COPA) to coordinate the activities of ocean-related state agencies to improve the effectiveness of state efforts to protect ocean resources. Key principles that guide the OPC include:

- Supporting sustainable uses of the coast, and ensuring the health of ecosystems;
- Improving the protection, conservation, restoration, and management of coastal and ocean ecosystems through enhanced scientific understanding, including monitoring and data gathering; and
- Identifying the most effective and efficient use of public funds by identifying funding gaps and creating new and innovative processes for achieving success.

The OPC recently adopted its 2012-2017 Strategic Plan, which includes the objective "*Anticipate and address regulatory issues, policy development, and information needs*

associated with the development of marine renewable energy through coordination activities and other means."

In December 2011, the OPC also adopted a resolution (attached) recommending the California Energy Commission adopt an energy policy that "facilitates the development of small scale test and pilot ocean renewable energy projects by working with state agencies and academic institutions in California to promote research programs and funding related to evaluating small scale test and pilot ocean renewable energy projects."

Once again, thank you for the opportunity to comment on the Draft EPIC Investment Plan. We appreciate the inclusion of marine renewable energy (wave, tidal, and offshore wind energy) in the Draft Plan and encourage funding from the EPIC program to bolster partner opportunities with the CSLC and OPC in a statewide effort to support the advancement of marine renewable energy technology testing and demonstration in California.

Respectfully,

Curtis L. Fossum, Executive Officer
California State Lands Commission

Cat Kuhlman, Executive Director
Ocean Protection Council