



California Energy Commission  
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1516 Ninth Street  
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Re: Docket No. 12-EPIC-01  
2015-2017 EPIC Second Triennial Investment Plan

<p>California Energy Commission</p> <p><b>DOCKETED</b></p> <p><b>12-EPIC-01</b></p>
<p><b>TN 72851</b></p> <p><b>MAR 28 2014</b></p>

March 27, 2014

On behalf of the California State University (CSU) Council on Ocean Affairs, Science & Technology (COAST), I am pleased to submit comments to the California Energy Commission following the Electric Program Investment Charge (EPIC) Second Triennial Investment Plan Development workshop on March 21, 2014, in Westminster, CA. COAST represents the interests of hundreds of marine science researchers and educators within the CSU, the nation’s largest public university system. Our members’ areas of expertise span all aspects of marine biology and ecology and are specifically applicable to advancing our understanding of the effects of marine renewable energy technology on the marine and coastal environments.

We applaud California’s leadership in the development of clean energy technologies and the envisioned transition from fossil fuels to renewable sources of energy. Overall we support the Program’s goals of providing funding for applied research and development, technology demonstration and deployment, and market facilitation for clean energy technologies. We are confident that California will lead the rest of the nation forward along the pathway to clean, sustainable energy sources.

At the March 21 workshop, several renewable energy technologies were mentioned specifically, such as solar and biomass. A question to the stakeholders was “Are critical research initiatives missing?” In response, we feel the omission of marine renewable energy is an oversight that should be corrected as the Second Triennial Investment Plan is drafted for release in May 2014. Marine renewables will be an important part of California’s clean energy portfolio. The community surrounding this technology is established but needs State and federal support in order to move ahead.

CSU COAST’s interest in marine renewable energy technology is specifically focused on better understanding the effects of wave and tidal energy conversion devices on our marine and coastal environments. Three areas in particular that require study as we move toward the development and deployment of these technologies are

1. Impacts to benthic habitats and organisms.
2. Impacts to pelagic species, including fish, birds, mammals and turtles.
3. Impacts to coastal dynamics and geomorphology.

These areas of study are applicable to each of the Investment Areas:

- Applied Research and Development
  - As marine renewable energy technology (e.g., wave and tidal energy conversion devices) development continues, it is critical to evaluate the impacts of these technologies on marine organisms and the environment. With such knowledge, it may be possible to incorporate design elements into the technology itself to minimize or eliminate negative impacts.
- Technology Demonstration and Deployment
  - By understanding the effects of marine renewable energy technologies on marine organisms and the environment, deployment sites can be chosen to minimize unnecessary damage to vulnerable marine and coastal species and habitats. This can be accomplished for both demonstration and industrial scale deployment.
- Market Facilitation
  - Investing in research up front to reduce and mitigate potential negative impacts to the marine environment and incorporating the results into planning will facilitate public acceptance of marine renewables as part of California's clean energy package. California's citizens can be very active and vocal when motivated. Ensuring that the development of new technologies is done in a way that ensures sustainable use of the coast should reduce objections.

There are several Second Triennial Investment Plan strategies to which marine renewables are particularly applicable. Specifically

- S5.2 Developing Environmental Tools and Information for Future Renewable Energy Conservation Plans.
  - During the workshop, a “desert” conservation plan was mentioned. Similarly, conservation plans should be developed for the marine and coastal regions in advance of adoption of marine renewable energy technologies.
- S20.3 Reduce Bioenergy Costs and Delays by Developing a Programmatic Environmental Impact Report for Solid Fuel Biomass.
  - A programmatic EIR could be developed for certain types of marine renewable energy technologies. A foundational report could be customized for different sites along the coast. Preparing such a report could reduce costs and delays.

We stress the need for transparent, open competition for Program funds as investments are made. All interested parties should have the opportunity and ample time to submit competitive proposals for independent third party review. We feel strongly that transparency and equity of opportunity are critical to the overall success of the Program and will ultimately benefit the citizens of California.

Thank you for providing the opportunity to submit comments for consideration,



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Director