

Energy - Docket Optical System

California Energy Commission

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From: Mirko Previsic [mirko@re-vision.net]
Sent: Friday, August 17, 2012 10:32 AM
To: Energy - Docket Optical System
Subject: Docket No. 12-EPIC-01

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California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Docket No. 12-EPIC-01 – Comments on Strategies to tap into marine renewable energy (offshore wind and wave energy)

Thank you for the opportunity to comments on the EPIC Program.

My name is Mirko Previsic, president of RE Vision Consulting. We are a RD&D firm focusing exclusively on marine energy and are based in Sacramento, California. Having been involved in marine energy for over 15-years, and having had the opportunity to lead many national and international research efforts on this topic, the following bullet-points summarize my thinking of this industry in the California context.

- The combined technical potential for electricity generation from offshore wind and wave energy exceeds California's electricity consumption and is in close proximity to California's load centers. Even harnessing a small percentage of that total potential could make a significant contribution to meeting the aggressive renewable generation targets of this State.
- Technologies to tap into this enormous potential have matured significantly over the past few years. Technology maturity is important, because it will allow California to focus on deployment and siting of these marine energy devices, without having to build an extensive research base (which takes a long time).
- The focus should be initially (over the first 5-years) on developing a technology demonstration and validation program. Environmental and siting issues could be addressed in parallel with these early-adopter technology demonstration programs, so that all siting and deployment barriers can be addressed in a comprehensive way.
- A target deployed demonstration capacity of 5-10MW using 3-5 different technologies (mixed wave and deep-water wind) would allow to establish a solid baseline for future larger commercial deployments.
- There are several offshore oil&gas platforms offshore southern California that could be used as an electrical take-off point for establishing such a pilot site. Our company has developed a feasibility study for Platform Irene, which has an existing electric grid interconnection that could be used as a power-export cable for a demonstration facility. Leveraging this existing infrastructure could significantly reduce the total cost of such a site and also reduce the permitting hurdles, because most environmental baseline studies have already been completed to permit the oil&gas rig.

- In addition to the above primary efforts, some supporting R&D should be carried out:
 - A detailed and realistic roadmap should be established that details a pathway forward.
 - Detailed resource assessments and mapping of the California coastal areas
 - Assessment of coastal infrastructure (electrical transmission & ports) to support commercial activities associated with this emerging industry
 - Detailed GIS-mapping of conflicting use areas
 - Outreach activities to local stakeholders (fishermen, etc.)
- Collaborative activities with existing RD&D programs at the US DoE and the US Navy that already focus on this sector could allow the Energy Commission to leverage it's own funding.

Given the substantial difficulties that have been encountered with the deployment of traditional renewables (wind, solar, geothermal etc.) in this state, it is critical for the Energy Commission to seriously consider marine energy technologies and pursue them aggressively as an option to meet strategic renewable energy goals.

Thank you for consideration of these comments.

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Enabling Visionary Renewable Energy Projects