



# Oregon

John A. Kitzhaber, M.D., Governor

## Department of Land Conservation and Development

635 Capitol Street NE, Suite 150

Salem, Oregon 97301-2540

Phone: (503) 373-0050

Fax: (503) 378-5518

[www.oregon.gov/LCD](http://www.oregon.gov/LCD)



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TO: Land Conservation and Development Commission  
FROM: Paul Klarin, Marine Affairs Coordinator  
SUBJECT: **Agenda Item 6, November 14-15, 2013, LCDC Meeting**

## **OREGON MARINE RENEWABLE ENERGY PROJECTS**

### **I. SUMMARY**

The department is currently engaged in the coordination and review processes associated with three separate marine renewable energy projects; one in state waters and the other two in federal waters. Those projects are the Camp Rilea marine renewable energy feasibility study, the Pacific Marine Energy Center project south of Newport, and the Principle Power WindFloat project near Coos Bay. Each project has a different objective and is at a different stage in its progress toward becoming authorized and developed. Each project will eventually require some form of approval from the state for either the marine renewable energy facility that would be developed or the cables linking that facility to an onshore substation or auxiliary structure.

### **II. RECOMMENDED ACTION**

There is no action required by the commission for this agenda item.

### **III. BACKGROUND**

Camp Rilea: The Camp Rilea project by the Oregon Military Department (OMD) seeks to assess the feasibility of siting a marine renewable energy project within the Oregon territorial sea and the outer continental shelf off of Camp Rilea. The portion of the study area within state waters is delineated as a Renewable Energy Facility Suitability Study Area in the Territorial Sea Plan. The OMD is overseeing an Oregon Wave Energy Trust (OWET)-funded study that initiates the conceptual design of the Camp Rilea Ocean Renewable Energy Program. The feasibility study is due to be completed by the end of December 2013. The purpose of the study is to leverage the prior feasibility study, collaborate with local stakeholders, and identify the next steps towards the phased development of a test site for shallow and mid-depth marine energy conversion (MEC) technologies. The study will conduct an evaluation of sea-based and shore-based infrastructure

needed to accommodate a range of MEC technologies in both the Oregon territorial sea and the outer continental shelf. The goal of this small study is to develop an actionable plan for subsequent phases. No on-water work or in-water installation is involved in the study.

Pacific Marine Energy Center: The National Northwest Marine Renewable Energy Center (NNMREC), a program within Oregon State University, is in the process of expanding its capacity and function by creating the Pacific Marine Energy Center (PMEC). PMEC will be comprised of the existing temporary small-scale test platform at the North Energy Test Site (NETS) off Yaquina Head, and a new site off of south Newport known as the South Energy Test Site (SETS), where companies will be able to deploy and test full scale marine renewable energy devices through a facility connected to an onshore substation and capable of delivering electrical power to the commercial grid supply. NNMREC is now focused on obtaining the necessary state and federal authorizations for the PMEC-SETS development (mostly funded by the U.S. Department of Energy (US DOE)). This entails providing state and federal agencies with sufficient information for the agencies to make reasonable determinations that the project will meet the various statutory and regulatory requirements for the full 25-year authorization period, with 5-year reviews provided to confirm that project effects are within the scope of what is originally evaluated and authorized.

PMEC has convened an advisory team, including representatives from DLCD, other state and federal agencies and stakeholders, to assist it in navigating the regulatory and leasing process. The advisory team meets regularly to assist NNMREC in establishing the mandatory monitoring plans along with mechanisms for fulfilling other permit and lease related requirements. The challenge to NNMREC and the advisory team is in devising a project that meets the standards and requirements of a leasing and regulatory system that is designed for full scale permanent commercial development, and not for a multi-faceted deployment of a variety of technologies of unknown type and specification.

In June, NNMREC submitted an unsolicited lease request to the federal Bureau of Ocean Energy Management (BOEM) for an approximately 4.5 square mile area south of Yaquina inlet, but that application is not yet being considered, pending the completion of the monitoring plan and agreement on the mechanisms for submitting periodic project updates that provide detail on prospective new technology deployments. The advisory team is working with FERC and BOEM on these issues.

WindFloat: Principle Power, a regional company, has been awarded a US DOE Funding Opportunity grant totaling \$4M to fund the initial stage of a pilot project that will deploy five floating wind turbines approximately 16 miles off the coast of Oregon near Coos Bay. Principle Power is one of seven US DOE-funded projects that will be competing for additional funding needed to build the project out to completion.

In May, Principle Power submitted an application for a lease from BOEM. BOEM then issued a request for information (RFI) in the federal register to determine if there were any other companies interested in leasing the same area for renewable energy development. The

department and other state agencies worked on the RFI with BOEM prior to its issuance. This effort was coordinated through the Oregon BOEM Task Force and the office of the Natural Resources Advisor to the Governor. The application proposes a pre-commercial, pilot-scale wind farm for deployment offshore of Coos Bay, Oregon. The 30 megawatt (MW) project, named the WindFloat Pacific Offshore Wind Demonstration Project, consists of five WindFloat units outfitted with Siemens Wind Turbine 6.0 MW, direct-drive, offshore wind turbines. The lease area is approximately 15 square miles and consists of all or parts of four lease blocks, though only a fraction of that area would eventually be used for the pilot project. A subsea cable is to export the electricity produced to facilities at the planned South Dunes Power Plant, a combined cycle natural gas power plant associated with the Jordan Cove Energy Project with whom Principle Power has negotiated a power purchase. Principle Power has allocated additional development funds towards the development of a multi-purpose berth that would facilitate efficient WindFloat deployments, and plans for facilities at the Port of Coos Bay to serve as the final assembly, hull load-out, turbine installation, and maintenance base for WindFloat units.

#### **IV. DEPARTMENT RECOMMENDATION**

This agenda item is informational only, no action will be required by the commission, and no recommendation is needed from staff.