Pacific Marine Energy Center

Frequently Asked Questions About PMEC

What is PMEC?

PMEC refers to the Northwest National Marine Renewable Energy Center's marine energy converter testing facilities. PMEC will encompass the range of test facilities available to the marine energy industry.

What facilities are included under PMEC?

PMEC includes scaled laboratory testing facilities for wave and current converters and intermediate and full-scale open water wave converter testing facilities in both Washington and Oregon. Over time, our vision is to add other wave and current test facilities to the PMEC portfolio to create a global hub for marine renewable energy research and testing.

This map illustrates the locations of PMEC facilities and resources at the UW and OSU.

Oregon State University Campus- *Corvallis, OR*

The Wallace Energy Systems and Renewable Facility provides research, testing and consulting services related to machines and drives, power electronics, hybrid electric vehicles, power systems and renewables. The two wave tanks at the O.H. Hinsdale Wave Research Laboratory- the Large Wave Flume and the directional Tsunami Wave Basin- allow for testing of scaled devices.

University of Washington Campus- *Seattle, WA*

The Aeronautical Laboratory maintains a flume suitable for scale testing of current turbines. The Harris Hydraulics Laboratory is in the process of upgrading its combined wind/wave channel (available late-2014) suitable for scale testing of wave energy devices and mooring systems.

Washington Open Water Testing

For intermediate scale wave energy devices, UW supports open water testing in Puget Sound and in Lake Washington.

Oregon Open Water Testing- *Newport, OR*

For a full-scale wave energy resource, the PMEC North Energy Test Site (NETS) can accommodate devices up to 100kW connected to the Ocean Sentinel, and larger devices if no grid emulation or connection is required. The PMEC South Energy Test Site (SETS) is a grid-connected site currently under development. SETS will serve as the utility-scale wave energy test facility for the US, and is expected to be available for device testing in 2016.

Why should we support marine renewable energy technologies in Oregon?

Marine renewable energy is located near our nation's coastlines and close to population centers, thereby reducing transmission costs. In addition, marine renewables provide a local emission free source of energy that will help wean our nation from dependence on fossil fuels. A robust marine renewables energy industry will help create jobs, revitalize shipyards and add to the economies of coastal communities.

PMEC Pacific Marine Energy Center · Oregon State University OSU · NNMREC Northwest National Marine Renewable Energy Center · University of Washington