Partnership to Advance Research and Development of Renewable Energy

The New England Marine Renewable Energy Center (MREC) at the University of Massachusetts, Dartmouth, USA, announced today that it has signed a Cooperative Research and Development Agreement with the U.S. Department of Energy's National Renewable Energy Laboratory (NREL).

The three-year agreement creates a partnership to advance research and development of renewable energy captured from ocean waves, tidal currents and offshore wind.

MREC is leading an experimental marine renewable energy program in the Muskeget Channel off Nantucket, which commences this July with the testing of underwater turbines that generate electricity through tidal power.

NREL houses the nation's premier laboratory facilities for testing offshore wind and water power devices and maintains a staff of offshore-trained test engineers and technicians who conduct a wide range of field measurements to verify system performance and dynamic responses. Applying 35 years of wind turbine testing expertise, NREL has developed instrumentation for high resolution measurements in the open water by adapting and augmenting its existing land-based wind turbine testing capabilities. NREL staff includes offshore-trained test engineers and technicians, who conduct a wide range of field measurements to verify machine performance and dynamic responses.

In the initial year of the collaboration, the team will focus on assessing MREC sites and assessing priority infrastructure needs along with developing test protocols appropriate for the MREC sites. These test protocols will also inform the development of general test protocols for the marine hydrokinetic power (MHK) community.

MREC executive director John Miller is pleased with the new partnership. He states that MREC got the in-water test facilities up and running with MHK devices operating, while NREL has the technical expertise and experience to ensure making the most out of devices operating on-site by collecting valuable test data.

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