

## Oregon State University Wave Research

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Oregon Senator's Gordon Smith and Ron Wyden announced Friday that Oregon State University will receive a five-year, \$6.25 million grant to help advance the development of wave and tidal energy by establishing an ocean energy research center in Newport. Many energy experts believe Oregon has the potential to become America's most prominent leader in wave energy production.

"Wave energy possesses incredible potential to provide America with clean, affordable and renewable energy." said Smith. "Oregon State University has been a leader in this emerging technology and I am pleased the DOE has recognized their outstanding work. From wave to wind energy, Oregon is on the fast track to becoming our nation's most diversified leader in green energy."

"Oregon is now the unquestioned national leader in marine renewable energy," said Robert Paasch, associate professor of mechanical engineering at OSU.

OSU is the home of the Hatfield Marine Science Center (HMSC). The center's scientists are recognized as national experts on the potential impacts of wave energy on the marine environment. The Oregon State Wave Energy team's research and development goals seek to develop high quality wave energy generation systems that are efficient, durable in hazardous ocean conditions, reliable and can be easily maintained.

The grant was awarded from the Department of Energy. Oregon State University was one of only three colleges to receive federal funding to study wave energy. The University of Washington and University of Hawaii were also awarded grants.

Wave energy has several promising characteristics including:

- The density of water is more than 800 times that of air, wave energy devices can extract more power from a smaller volume at a lower cost and reduced visual impact.
- Waves are more "available," between 80-90 percent of the time, compared to wind availability that is in the 30-45 percent range, depending on location. Wave energy is also more predictable than wind.
- By placing sensors off the coast, wave generation can be accurately predicted up to 10 hours in advance of waves hitting the coast, enabling more reliable integration into the electric utility grid. Source: KOHD News (<http://kohd.com/news/local/46332>)