



Waves, tides draw energy notice in US

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Ocean waves and tides are generating development plans in the US Pacific North-west as pressure grows for more renewable and emissions-free energy supplies.

Portland General Electric, Oregon's largest utility, is teaming with a wave research laboratory at Oregon State University to explore technologies to tap the energy from waves rolling onto the Oregon coast.

"We could see wave energy becoming competitive with wind power in about 10 years as a renewable resource," Joe Barra, director of customer energy resources at Portland GE, said.

Snohomish County Public Utility District, a fast-growing municipal utility near Seattle, has asked the Federal Energy Regulatory Commission for permits to study seven tidal power projects in and around Puget Sound.

Depending on the outcome of the studies, the utility could install submerged turbines spinning with the ebb and flow of the tides to generate power linked to its distribution network.

Ocean Power Technologies, a New Jersey-based company, has applied to FERC for a preliminary permit to develop a 50-megawatt wave power project offshore from Reedsport, Oregon. FERC commissioners will consider the plans at a meeting on February 15.

Portland GE also is eyeing Reedsport. Buoy devices to produce electricity from the rising and falling of ocean waves could feed power into existing transmission cables to deliver to customers inland from the coast, Barra said.

The Silicon Valley-based think-tank Electric Power Research Institute studied energy sites along the North-west coast and found that Oregon has very powerful waves and could supply about 20 per cent of the state's total demand for electricity, Ocean Power said in a FERC filing.

Oregon lawmakers are considering a plan to make renewable power 25 percent of state power supplies by 2025.

Marine power from tides and waves is an infant industry aiming to take advantage of the growing demand for clean renewable energy that reduces dependence on fossil fuels.

Renewables such as solar, hydro, geothermal, biomass, wind and tidal power, however, account for only about 13 per cent of global energy supplies with waves and tides barely measurable, according to the International Energy Agency, after oil, coal, gas and nuclear generation.

Steve Kline, general manager of the Snohomish utility, said efforts by states to require utilities to increase renewable energy sources could give tidal and wave power a boost.

Washington state requires utilities to add renewable supplies in four-year phases to reach at least 15 per cent of total electricity loads by 2020.

The Snohomish utility depends on hydropower to supply its 310,000 customers but it will need other sources to keep pace with customer growth running at more than 3 per cent a year, Kline said.

"We border on Puget Sound so it makes sense to explore tidal energy. We're also looking at solar generation, so together they fit into clean and renewable," he said.

Tidal studies will also include environmental issues such as impacts on marine life, fishing, recreation, US Navy operations in Puget Sound and other questions.