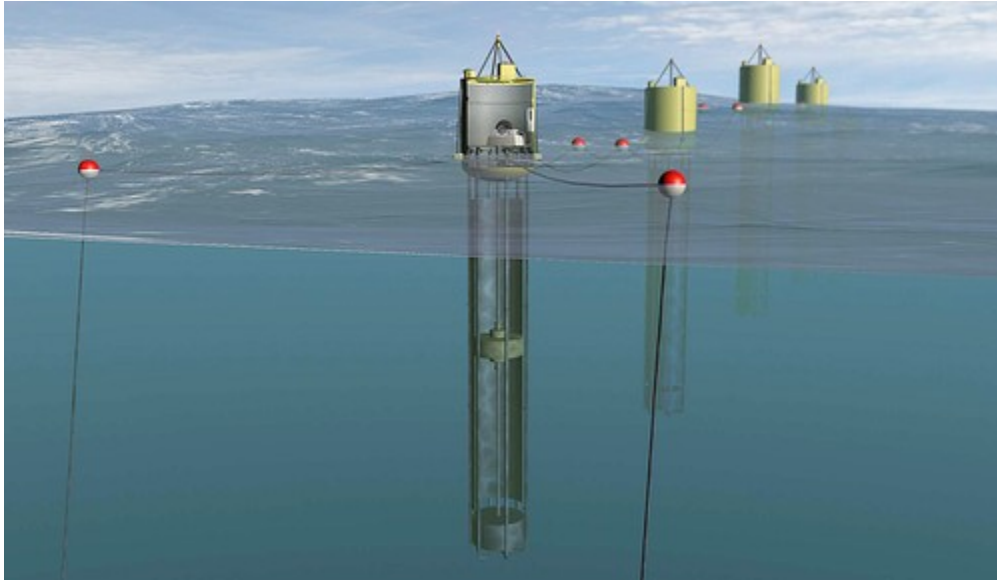


PG & E to get watts from waves

By Elizabeth Douglass and Victoria Kim, Los Angeles Times Staff Writers
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Finavera Renewables Inc.

"Given the potential for wave power off the coast of California, it's definitely something that's exciting for us," said Uday Mathur of PG&E's energy procurement department. Above, an artist rendering of an AquaBuoy.

Pacific Gas & Electric Co. went surfing Tuesday, becoming the first U.S. utility to commit to buying electricity generated by the tumult of the sea.

The San Francisco-based company, which this year proposed a test facility for producing power from ocean waves, said the electricity in its new contract would come from a wave project planned by Canada's Finavera Renewables Inc. for the waters off the coast of Northern California's Humboldt County.



[Ocean prowess](#)

The PG&E Corp. subsidiary said power from the 15-year deal would be delivered beginning in 2010 and would provide a relatively meager boost to the grid: just 2 megawatts, or enough to

power about 1,500 homes. But the company said the power deal was a significant milestone for a promising technology that could be a major source of renewable energy for the state.

"Given the potential for wave power off the coast of California, it's definitely something that's exciting for us," said Uday Mathur of PG&E's energy procurement department. "This shows the marketplace that there is a demand for it."

Finavera, based in Vancouver, is one of many companies chasing technologies designed to harness the force of the ocean to produce power. Some hope to tap the sea's below-surface tidal forces, some target the power of breaking waves, and Finavera and others have focused on surface waves offshore.

"It's very, very much an emerging technology," said Roger Bedard, ocean energy leader at the Electric Power Research Institute and coauthor of a 2006 study of wave power's potential in California. He applauded PG&E's move, noting that wave power could capture more energy in less space than wind and solar power systems.

"There are a whole bunch of different ways to harness wave power," Bedard said. "This is, in fact, the first step. . . . It's way too early to know which ones will turn out to be the most commercially economical."

Finavera's "wave park" would include eight bobbing buoys set up about 2 1/2 miles offshore from Eureka, Calif. The up-and-down motion of the Pacific Ocean would power a pump that creates electricity, which would be delivered to a PG&E substation via an underwater transmission cable.

PG&E and Finavera wouldn't disclose the cost of the project or the power, but both acknowledged that the electricity would be pricier than more established alternatives. The power contract must win approval from the California Public Utilities Commission; the wave project must pass muster with a host of federal and state agencies.

In Humboldt County, 100 miles south of the Oregon border, residents welcomed the notion of adding new alternative energy sources, but they were concerned about the effect on the region's fishing industry and surfing culture. Some groups also worry that whales and other sea life could be harmed by the equipment.

"If we can make sure it's done in the most environmentally friendly way, then I'm all for it," said Pete Nichols, an activist who hosts two environmental shows on local radio stations.

Bill Lydgate, an avid surfer, was worried that the facility would alter conditions at the region's best surfing spots. The locations "become very important in our small minds, and anything that would take away from their majesty is a threat," he said.

Lydgate also said locals were concerned because the technology was so new. "I'd hate for them to experiment in our backyard. I'd like to see proven technologies come in rather than have unknown impacts from an experimental technology," he said.

Finavera has yet to produce a commercial version of the system, but it has conducted extensive tests, including a single buoy trial off the coast of Newport, Ore.

Jason Bak, chief executive of Finavera Renewables, called the deal with PG&E "a strong signal of support for not just where they see us going, but for the whole wave energy industry off the West Coast."

Interest in the ocean's power-generating prowess is bound to accelerate. In California, new laws require utilities to get 20% of their electricity from renewable energy sources by 2010 -- and other states are pursuing similar goals.

V. John White, executive director of the Center for Energy Efficiency & Renewable Technologies, said some people were skeptical about wave power's future.

But, he said, "I think it's certainly an area that's worth exploring. . . . We need all of the renewables that we can get."

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