

## West Coast Hydrokinetic Energy Projects

	Location	Latest news	Next steps	Technology description	Footprint description
<b>California</b>					
<b>Centerville OPT Wave Energy Park</b> P-13075 Updated: 8/18/2008 Preliminary permit issued 6/27/2008	Eureka	FERC sent California Wave Energy Partners details about filing 6-month report (due in November).		40-80 buoys, 20 mW	7.025 square miles, 2.5 miles offshore.
<b>Green Wave Mendocino Wave Park</b> P-13053 Updated: 8/18/2008	Mendocino	FERC said they needed more information; applicant submitted more materials.	Waiting for preliminary permit.	Buoys or other technology, 5 mW	2.5 x 6.9 miles (study area), up to 2.6 miles offshore, 120-390 feet deep.
<b>Green Wave San Luis Obispo Wave Park</b> P-13052 Updated: 8/18/2008	Morro Bay  <i>Possibly Federal waters</i>	FERC said they needed more information; applicant submitted more materials.	Waiting for preliminary permit.	Buoys or other technology, 5 mW	3.1 x 7.1 miles. 1-3.5 miles from shore, 90-360 feet deep.
<b>Humboldt County Wave Project (PGE)</b> P-12753 Updated: 8/18/2008 Preliminary permit issued 2/14/2008	Trinidad	Submitted progress report 7/29/08. Finavera has been conducting meetings, studies, etc.	Plan to file PAD February 2009.	Unspecified; 100 mW	Research area: 8 square miles; final size between 2-3 square miles. 20-40 fm (120-240 feet). 2-4 miles off shore
<b>Humboldt WaveConnect Project (PGE)</b> P-12779 Updated: 8/18/2008 Preliminary permit issued 3/13/2008	Eureka/Samoa  <i>Possibly Federal waters</i>	Requests for late intervention denied. Conducting meetings and studies.	Will decide on licensing process (TLP or pilot) by March 2009. Progress report due 8/31/08.	8-200 buoys or other technology, 40 mW	8-200 buoys. Research area: 136 square miles. 60-600 feet in depth. 2-10 miles from shore.
<b>Mendocino WaveConnect Project (PGE)</b> P-12781 Updated: 8/18/2008 Preliminary permit issued 3/13/2008	Fort Bragg  <i>Possibly Federal waters</i>	Various parties requesting more time to comment.	Unclear.	Buoys or other technology, 40 mW	Research area: 68 square miles. 60-600 feet in depth. 0.5 to 6 miles from shore.

	<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
<b>MMS Proposed Lease Area 1 - Marine Sciences Co. &amp; PGE</b> Updated: 7/23/2008	Humboldt County, Federal waters. <i>In Federal waters</i>	Both "Marine Sciences" and PGE are interested in doing data collection at this site for a wave energy project. The Council commented on this call for lease nominations.	MMS is negotiating with Marine Sciences & PGE to see if they will collaborate in this lease area. MMS proceeding with consultation & analyses. NEPA process required.	Too early to say	3-14 miles offshore of Humboldt County. Leases are for 5 years.
<b>MMS Proposed Lease Area 2 (PGE)</b> Updated: 7/23/2008	Off Fort Bragg <i>In Federal waters</i>	PGE is interested in doing data collection at this site for a wave energy project. The Council commented on this call for lease nominations.	MMS will proceed with a noncompetitive leasing process, working with the applicant and local stakeholders to refine the area and scope of proposed activities and to address other local concerns. Planning consultation & analyses. NEPA process required.	Too early to say	3-9 miles offshore of Fort Bragg, Mendocino County. Leases are for 5 years.
<b>San Francisco Bay (Golden Gate Energy)</b> P-12585 Updated: 8/18/2008 Preliminary permit issued 10/11/2005	San Francisco Bay	No specific date given for PAD. Little activity since April.		60 turbines/square mile, 1000 mW	60 turbines per square mile, located on sea floor. Footprint not specified.
<b>Oregon</b>					
<b>Coos Bay OPT Wave Park</b> P-12749 Updated: 8/18/2008 Preliminary permit issued 3/9/2007 PAD submitted	Coos bay	Submitted PAD 3/7/08. Comment period extended to 120 days to allow for meetings with Southern Oregon Ocean Resource Coalition (user group). Filed notice of intent to use TLP.	OPT intends to use the traditional licensing process.	200-400 buoys, 100 mW	200-400 buoys in 3-6 rows parallel to the beach, 25-40 fm deep. Currently, 1 mile wide by 5 miles long; eventually smaller. 2.5 miles from shore.

	<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
<b>Douglas County Project (Douglas County)</b> P-12743 Updated: 8/18/2008 Preliminary permit issued 4/6/2007 PAD submitted	Winchester Bay	Submitted PAD 5/23/08. Much commenting activity. Surfers opposed to project. Tribes want government-to-government consultation process.	Will use the traditional licensing process.	One jetty-based structure	Varies from other proposed projects in that it is powered by wave-driven air currents created by infrastructure built into existing jetty; installed capacity of 3MW.
<b>Newport OPT Wave Park</b> P-12750 Updated: 8/18/2008	Newport/ Waldport  <i>Possibly Federal waters</i>	Various comments and motions to intervene, but no major activity since April 2008.	Waiting for preliminary permit. Looks like this might be a placeholder.	200-400 buoys, 100+ mW	200-400 buoys in 3-6 rows parallel to the beach. 3.5 miles wide (e/w) by 5 miles long (n/s); eventually as little as 0.4 miles by 3.1 miles, 20-35 fm, up to 6 miles offshore
<b>Oregon Coastal Wave Energy Project (Green Wave)</b> P-13047 Updated: 8/18/2008  Preliminary permit issued 5/23/2008	Nehalem, Rockaway, Garibaldi, Netarts, Nestucca, and Neskowin.	Submitted preliminary schedule of activities 7/8/08	First progress report due 10/31/08. Fall 2008: Evaluate Garibaldi and Netarts deployment sites. Spring 2009: Decide which application process to use. Through 2010: Conduct meetings, studies, etc.	Buoys, 20-180 mW (total)	N/A
<b>Reedsport OPT Wave Park</b> P-12713 Updated: 8/18/2008 Preliminary permit issued PAD submitted	Reedsport	PFMC submitted comments in Nov 2007. Agencies making informal comments on study plans. No action on FERC site since January 2008 (progress report overdue).	Draft license application has been prepared and is being reviewed; plan to submit it September 2008, and to conduct NEPA process after license app is submitted.	10 buoys, up to 4.14 mW per year	Depth: 204-225'. Footprint: 0.25 sq. miles, sandy bottom.
<b>Washington</b>					
<b>Admiralty Inlet (Snohomish PUD)</b> P-12690 Updated: 8/18/2008 Preliminary permit issued 3/9/2007 PAD submitted	Admiralty Inlet, Puget Sound	Submitted PAD 1/31/08. Will be first pilot Snohomish PUD project. Considered most feasible of Snohomish projects. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	1-5 turbines (type unknown), up to 5 mW	Bay/estuary habitat; 60-100 m deep; gravel/sandy bottom; much shipping & commercial traffic

	<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
<b>Agate Passage (Snohomish PUD)</b> P-12691 Updated: 8/18/2008 Preliminary permit issued 2/22/2007 PAD submitted	Agate Passage, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 0.4 mW	Bay/estuary habitat; 10 m deep; sand/gravel floor; used by pleasure craft
<b>Deception Pass (Snohomish PUD)</b> P-12687 Updated: 8/18/2008 Preliminary permit issued 3/1/2007 PAD submitted	Deception Pass, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 3 mW	Bay/estuary habitat; 30 m deep; rocky seafloor; mainly recreational use.
<b>Grays Harbor Ocean Energy and Coastal Protection (Washington Wave Co.)</b> P-13058 Updated: 8/18/2008 Preliminary permit issued 7/31/08	Grays Harbor  <i>Possibly Federal waters</i>	Lots of new comments & motions to intervene. Preliminary permit issued 7/31/08.	Unclear.	12 oscillating water column units, 6MW (Eventually, wind turbines & buoys, 168-418 mW)	Up to 28 square miles. 1-3 miles offshore, 10-70 feet in depth. West of Ocean Shores and Westport.
<b>Guemes Channel (Snohomish PUD)</b> P-12698 Updated: 8/18/2008  Preliminary permit issued 2/22/2007 PAD submitted	Guemes Channel, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 3.5 mW	Bay/estuary habitat; 15 m deep; gravel seafloor; commercial shipping traffic.
<b>Makah Bay Offshore Wave Energy Pilot Project (Finavera)</b> DI02-3 Updated:	Makah Bay (Neah Bay)	Five-year license issued December 21, 2007.	Now involved in lawsuit with State of Washington relatd to environmental permitting. Awaiting outcome.	1 buoy, 1 mW	60x240 feet at ocean surface; 625x450 feet at ocean floor. Sandy bottom with rocky outcroppings.
<b>Rich Passage (Snohomish PUD)</b> P-12688 Updated: 8/18/2008 Preliminary permit issued 2/22/2007 PAD submitted	Rich Passage, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 1.4 mW	Bay/estuary habitat; 15-22 m deep; gravel seafloor; commercial & naval traffic.

	<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
<b>San Juan Channel (Snohomish PUD)</b> P-12692 Updated: 8/18/2008  Preliminary permit issued 2/22/2007 PAD submitted	San Juan Channel, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 6.8 mW	Bay/estuary habitat; 135+ m. deep; gravel seafloor; commercial fishing use (salmon)
<b>Spieden Channel (Snohomish PUD)</b> P-12689 Updated: 8/18/2008  Preliminary permit issued 2/22/2007 PAD submitted	Spieden Channel, Puget Sound	Submitted PAD 1/31/08; requested and was granted an extension for filing notice of intent. Issued progress report 7/31/08.	Plan to submit draft license application in January 2010.	Turbines (type, number unknown), 8.3 mW	Bay/estuary habitat; 80 m. deep; gravel seafloor; commercial fishing use (salmon)
<b>Willapa Bay Tidal Energy Plant Water Power Project (Natural Currents)</b> P-12729 Updated: 8/18/2008 Preliminary permit issued 3/29/2007	Willapa Bay	Conducting field testing of turbine unit (spring 2008). Meeting with state agencies, NMFS, tribes; gathering environmental, social, economic impact info. Seeking funding. Filed NOI to use pilot licensing process 7/8/08.	Plan to submit draft application for pilot process 3/29/09. Earliest date for approval would be September 2009.	1-3 turbines (Red Hawk-2), 1-2 mW	825 meters SSW of State Road 105, 365 m offshore. Footprint unknown. Estuarine habitat. Aiming for installation in 2010.

	Location	Latest news	Next steps	Technology description	Footprint description
<b>DEFUNCT PROJECTS</b>					
<b>California</b>					
<b>Fairhaven OPT Wave Power Project</b> P-12780 Updated: 3/27/2008 <i>Defunct</i>	Eureka	Competing application in same location chosen over this one.		40-80 buoys, 20+ mW	.5 mile wide by 4 miles long (n/s), 22-26 fm
<b>Mendocino Wave Energy Project (Chevron)</b> P-12806 Updated: 1/15/2008 <i>Defunct</i>	Fort Bragg	Application withdrawn 8/31/07. Apparently the "lengthy approval process" in California led Chevron to pursue an opportunity in Alaska instead.		Pelamis machines, 2-60 mW	Unknown
<b>Sonoma Coast Hydrokinetic Energy (Sonoma Co.)</b> P-13076 Updated: <i>Defunct</i>	Sonoma Co.	Rejected - area too large, technology not specified.		?	N/A
<b>Oregon</b>					
<b>Columbia River project (Oregon Tidal Energy Co.)</b> P-12672 Updated: 3/27/2008 <i>Defunct</i>	Lower Columbia River	Preliminary permit surrendered - "insufficient development potential exists for either a full development or tidal project."		TISECs	River bottom.
<b>Coos County Wave Project (Finavera)</b> P-12752 Updated: 6/2/2008 <i>Defunct</i> 4/26/2007	Bandon	Permit cancelled 6/26/08 because no progress report or PAD was filed.		Buoys, 100-300 mW	5.5 square mile water footprint, 1.6 miles e/w by 3.4 miles n/s.
<b>Florence Wave Park Project (Energetech)</b> P-12793 Updated: 3/27/2008 <i>Defunct</i>	Florence	Proposal withdrawn - no reason given.		Oscillating water column technology, 10 mW	Each structure's footprint is 35x15 meters, not counting cables. Structures extend 7 meters above water and 15 below.
<b>Lincoln County Wave Energy Research &amp; Demonstration Center (Lincoln Co.)</b> P-12727 Updated: 5/5/2008 <i>Defunct</i>	Lincoln County	Dismissed by FERC		Various.	Unknown

	<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
<b>DEFUNCT PROJECTS</b>					
<b>Washington</b>					
<b>Tacoma Narrows (Tacoma Power)</b> P-12612 Updated: 8/18/2008  <i>Probably defunct</i>	Tacoma Narrows, Puget Sound	Doing feasibility studies. Issued progress report 7/30/08. Found that tidal power in Tacoma Narrows may not be economically or technically feasible at this time. Independent analysis underway, but permit will probably expire with no further action.	Prelim permit issued 2/22/06; expressed intent to use pilot process; but now looks unfeasible.	Up to 64 turbines, 1-20 mW	In estuary (HAPC). Footprint unknown.

---

<b>Location</b>	<b>Latest news</b>	<b>Next steps</b>	<b>Technology description</b>	<b>Footprint description</b>
-----------------	--------------------	-------------------	-------------------------------	------------------------------

---

**DEFUNCT PROJECTS**