

**Ocean Policy Advisory Council
Wave Energy Working Group Meeting
September 24, 2007 – Pacific City, Oregon
DRAFT Meeting Summary**

Participants:

Steve Shipsey	Dept. of Justice
Cathy Tortorici	NOAA Fisheries
Jonathan Allen	Dept. of Geology and Mineral Industries
Greg Pettit	Dept. of Environmental Quality
Jack Brown	Depoe Bay, OPAC
Fred Sickler	OPAC
Randy Henry	Oregon State Marine Board
David Allen	OPAC
Terry Thomson	OPAC
Louise Solliday	Dept. of State Lands
Onno Husing	Oregon Coastal Zone Mgt. Assoc.
Greg McMurray	Dept. Land Conservation and Development
Scott McMullen	OPAC, Oregon Fishermen's Cable Committee
Lauel Hillmann	Oregon Parks and Recreation Dept.
Andy Lanier	DLCD
Cheryl Coon	Portland Audubon
Roy Lowe	US Fish & Wildlife Service
Kathy Wall	Port of Coos Bay
Cindy Ashy	Newport
Ginny Goblisch	Port of Newport
Greg Harlow	Assn. of NW Steelheaders
Justin Klure	Oregon Wave Energy Trust
Paul Englemeyer	Audubon
Loren Goddard	Depoe Bay Nearshore Action Team
John Holloway	Recreational Fishing Alliance – Oregon
Pete Stauffer	Surfrider
Suzanna Stoike	Port Orford Ocean Resource Team
Craig Wenrick	Pacific City Dory Assoc.
Karen Chase	Oregon Dept. of Energy
Tim Hirsch	Pacific City Sun
Paul Klarin	DLCD
Robin Hartmann	Oregon Shores Conservation Coalition
Kevin Banister	Finavera
Jim Hastreiter	FERC

Agenda Items:

- Overview of past WEWG meetings (Robin Hartmann)
- Update on DSL's rule making for leasing of the seafloor for wave energy projects (Louise Solliday)

- Update on Finavera's wave energy project (Kevin Bannister)
- Update on OWET and funding (Robin, Kevin)
- Update on ecological effects workshop for scientists (Greg McMurry)
- Report on draft outline for a cumulative effects study (Cathy Tortorici/Jonathan Allen)
- Update on Lincoln County's efforts, including experimental buoys current in place (Terry Thomson, Kevin)
- Update on fishermen group outreach (Onno Husing, Terry)
- Discussion of input on FERC's proposed new process for hydrokinetic projects and Oct 2 conference in Portland (All)
- "Cap On Total Percentage of Wave Energy Use in OR Territorial Sea" (Scott McMullen)
- Discussion of next steps for OPAC (All)

Meeting Notes:

Robin Hartmann provided an overview of the past six WEWG meetings to remind working group members of how the group's thinking had evolved about what OPAC's role should be and what actions should be taken since the working group was established. Key points are listed here; details of each meeting can be found on the OPAC website under [meeting summaries of the Wave Energy Working Group](#).

1. Aug 8, 2006, Lincoln County Courthouse

- Why each participant is interested in serving on WEWG.
- What working group does: not decide or recommend, but analyze and provide options to OPAC.
- Amy Windrope, COMPASS, described possible wave energy ecological effects workshop.
- Ann Miles is going to be FERC federal liaison to OPAC.
- Discussion of estuaries being included in OPAC's work, since "tidal energy" project proposed within tidal waters up rivers (15 miles up Columbia River).
- General overview of wave energy development from collective knowledge of group.
- Coastal Caucus asked for suggested legislative changes. (Eventually accomplished in the 2007 session with county and wave energy industry input).
- Discussion of OPAC's possible role with wave energy: consideration of coastwide impacts; provide input for stakeholder concerns; serve as "venting agency" for public input; consider whether state agencies' "machinery" will work in terms of "consistency."

2. October 9, 2006, Newport

- General overview of requirements, processes described in Part II of the TSP for considering ocean development proposals: resources inventory; effects evaluation; joint review panel; local government consultation.
- DSL rulemaking update.
- Overview of MMS meeting/Ann Miles presentation to full OPAC.
- Windrope update on wave energy ecological effects workshop with HMSC's Director George Boehlert taking the lead.

3. November 27, 2006, Depoe Bay

- Line-by-line review of Part II of the Territorial Sea Plan.
- Decision to recommend no action to full OPAC based on implementation of Part II of TSP.

4. January 29, 2007, Port Orford

- Update on all moving pieces.
- Discussion of removal of anchors, other wave energy components, with focus on example of oyster sites within estuary near Newport. Need for coordinated agency response, adequate funding on removal of abandoned oyster equipment.
- OWET funding discussed.
- Key wave energy policy issues discussed, [list compiled](#).

5. April 18, 2007, Reedsport

- Update on all projects; Ecological effects workshop planning.
- Legislative update – funding for mapping of seafloor; assurance of financial ability of companies to remove all wave energy equipment when project completed; exempt wave energy projects from need for a state water rights permit if less than 5 MW and not requiring a FERC license.
- Douglas County project proposed for jetty.
- FINE group established under Lincoln County resolution.
- OPAC's role discussed: should be involved in statewide planning for wave energy; focus on Goal 19; forum for exchange of information; recommend siting criteria.
- Need for cumulative effect study or “trade off” analysis.
- Need a “cap” possibly at 3 percent. Cap not address “location, location, location.”
- OPAC may need to make a recommendation for gathering baseline information at each site prior to the projects going into the water.

6. July 19, 2007, Tillamook

- Oregon Innovation Council as a driver of wave energy development in the state.
- \$4.2 million approved by the legislature for wave energy in Oregon.
- Cumulative effects.
- Discussion of cap/no cap.

Louise Solliday provided a report on DSL's rulemaking for leasing of the seafloor for wave energy projects. DSL conducted rulemaking over a number of months. While in rulemaking, HB 875 gave further direction, so DSL adjusted the draft rules to make compatible with that bill. Seventeen people provided public comments. DSL made most of the changes requested by the public. After the comment period closed, the State Land Board reviewed and approved the [Final Administrative Rule Governing the Placement of Ocean Energy Conversion Devices On, In or Over State-Owned Land Within the Territorial Sea](#) at the board's October 9, 2007 meeting.

The rule lays out the application process and criteria to review and make decisions on two types of projects: demonstration and commercial. The rule is modeled somewhat after that for fiber-optics cables. The rule addresses removal of all components of the wave energy project, including buried anchors, which would be decided on a project-by-project basis with the Director of State Lands having discretion. The general thought was, “If you can put it there, you can remove it.” As asked for during the comment period, DSL disconnected the state's process from FERC's licensing process and timeline. For instance, the state and FERC lease are not of the same duration.

The state has the ability to cancel the lease. Funds from the lease of the seafloor go into the state school fund, and the state will likely charge at the same rate as it does for other energy projects --- in the two- to three- to five-percent range.

Ultimately, once the project is licensed by FERC, a company could use “eminent domain” to gain ownership of the seafloor. In the case of dams, this has been done. (Under what authority?)

Terry asked if DSL considers historical uses of the ocean when providing a lease? The reply was that DSL has no historical uses requirement. With fishing there are no past leases of the Territorial Sea, instead quotas were used.

Cathy Tortorici provided an overview of what a cumulative effects study is, and the group discussed a possible cumulative effect study of wave energy projects for Oregon. Her PowerPoint presentation can be found posted on the OPAC website under the work of the WEWG for this September 24 meeting.

Discussion occurred around whether the CE analysis would be in the form of a programmatic EIS under NEPA. A related discussion occurred about whether FERC should require an EA or an EIS for wave energy license applications from companies. This question could be raised at the FERC workshop on the wave energy pilot project process to be held in Portland on October 2nd. It was also suggested that OPAC send a letter requesting that an EIS be prepared for these new wave energy projects. The response was that FERC would make the determination about whether a project required an EA or an EIS. More discussion of the cumulative impacts study occurred later in this WEWG meeting (see below).

Greg McMurray provided a very brief update on the wave energy ecological effects workshop for scientists scheduled for Oct 11-12 in Newport at the Hatfield Marine Science Center. Invitations had been sent, and nearly 50 scientists are expected to participate.

Kevin Banister of Finavera provided an overview of Finavera’s projects. The company is involved in not just wave but wind, also. They have a pilot wave energy project proposed for Makah Bay that will have eight buoys. They expect the license to be approved on that project later this year.

Finavera has received a preliminary permit from FERC for its proposed project near Bandon in Coos County. The company’s general idea is to start with eight buoys build out to fifteen, then 100 then 400 buoys. Their application for a preliminary permit was originally submitted with a 25-square-mile area identified; FERC had the company reduce that, so the preliminary permit now covers 5.5 square miles. Nationwide, Finavera holds five preliminary permits from FERC.

Kevin explained how Finavera’s buoy technology works. Currently one buoy is deployed at Newport. Placement of that buoy was determined with the input of the FINE (Fishermen Interested in Natural Energy) committee from the Newport area, through a series of informal meetings (scoping). So, the process used to determine a location of Finavera’s prototype buoy was different from the one used by OPT. The device that was installed is conical and smaller than

what one of Finavera's commercial-sized buoy would be, which would be half again as large as the one deployed for testing. The test buoy is 75' long with 10' above water.

For this one test buoy, there was no FERC requirement, as there is no cable to the shore and no electricity being produced. The buoy has a solar panel to allow for telecommunication to the shores with equipment internal to the buoy. The purpose for having the buoy in the water is to monitor potential power generation output to have a better understanding. The buoy was put in place through the use of a temporary use permit and lease from DSL. The buoy has been deployed for three weeks, there is no buffer zone. It is out of the normal pathway for navigation. Finavera has no plans to put multiple buoys in the area at this time. They plan to pull the prototype device out before the end of October. The test buoy uses four one-ton anchors. It takes up a smaller footprint and was less expensive to install than a commercial-size buoy. The anchors are vertical load anchors. To remove them, horizontal force is applied with relatively low impact to the bottom environment.

The effort on the Makah project began in 2001. The pilot is to be located within a National Marine Sanctuary and is a tribe-sponsored project.

In Port Orford, Finavera is interested in the shortest sea cabling route to access to the substation. The company wants to work with local fishermen and crabbers to find a good location for its first buoys – either within or outside the area they have identified within the 5.5 square miles covered by the preliminary permit. The company is seeking the appropriate people who live locally to have a conversation about how far north or south to move the location for the first buoys. The company would like to use the same informal “scoping” process it used in Newport with FINE to locate the pilot project. For the commercial build out, the company plans to seek a 30-50 year license and phase the project in, starting with 2 MW, which is eight buoys. For the build out, the company has applied for 100 MW which is equivalent, at this time, to 400 buoys.

Justin Klure gave an overview of the Oregon Wave Energy Trust (OWET). Efforts to establish the trust started about a year and a half ago. During the last legislative session, \$26 million was appropriated for projects identified by the Oregon Innovation Council, with \$4.2 million of that being identified for wave energy development. That funding is to cover research and development projects, an environmental assessment and studies, planning for wave energy and more. OWET will oversee that funding. Justin said OWET would be receiving those funds in approximately \$1 million increments. The companies and OWET are working to obtain additional funding through federal incentives that Congress is considering.

Justin indicated that the WEWG efforts on the cumulative effects study are in line with what OWET will be considering over the balance of the biennium. He said it is not too early to communicate with the OWET what the WEWG or what an RFP for the cumulative effects study would cover. A good time to submit such a proposal would be during the first quarter of 2008. OWET is still working on its internal processes for how to evaluate projects.

Onno Husing and Terry Thompson provided an update on the fishermen and OCZMA outreach efforts, including the groups that are being formed to be similar to the FINE group. Terry Thompson indicated that there would be a paper completed soon by Bob Jacobsen on wave

energy equipment and the impacts it could have on fishing and crabbing that likely will be submitted to FERC during its 30-day comment period on the wave energy pilot project.

Onno said that there is a group being formed to provide input on the pilot project off of Coos County that is modeled after the FINE group. He also said that, related to OPT's project, he has been working with a fishing group in the Reedsport area which has held three meetings.

Discussion occurred about FERC's October 2nd meeting. If the State of Oregon conducts a cumulative effect study that lays out a larger framework, "pointing out the sweet spots" for Oregon on wave energy siting, how would FERC view that – how much weight would FERC give to that?

There was further discussion about whether FERC should be using an EIS or an EA on each of the wave energy projects that will be seeking a license. Some indicated the need to do a full EIS because there many unknowns with this new technology and in the ocean in general. It was pointed out that FERC decides which needs to be done based on "what constitutes a significant effect," so it is related to that definition, which could be a different result for a pilot project and a full commercial build out. It was expressed that the need is to get buoys in the water, get good tests and monitoring and, in the meantime, begin development of a state framework for wave energy.

Scott McMullen's outlined a proposal to put a "cap" on the amount of area within the Territorial Sea that could be used for wave energy development. He pointed out that this would be in keeping with the governors' tri-state agreement on oceans and taking a "precautionary approach" for areas where there are uncertainties. He suggested one percent for ten years, but indicated he wasn't wed to that. He indicated that currently there are eight projects which, if developed, would cover about 12-square nautical miles or about one percent.

Kevin indicated that the preliminary permit from FERC means very little about how many projects will actually be developed, as a company cannot put devices in the water under a preliminary permit. Economics will help drive how many of these projects are actually developed.

Discussion occurred about whether a cap would stop FERC from issuing additional preliminary permits, because we are not sure "the authority is there," or if a cap would address the real issue of location of the wave facility sites. Jack Brown indicated that siting is important especially since sandy bottoms are the preferred location for both wave energy facilities and crabbing. Terry Thompson indicated a concern that all one percent of the areas could possibly be located in one area under a cap, and areas along the Lincoln County coastline could be sought after for wave energy sites, so more sites might be proposed there. Also, he indicated that the FINE group wanted to see more proof that the wave energy technology works before allocating sections of the ocean to these companies. He said the FINE group also expressed concerns that there are only a "few corridors" between reefs in the ocean off of Lincoln County, and because those areas are limited, it might put marine reserves, wave energy and crabbing in conflict.

Onno suggested that, under the Federal Power Act, which requires that states consider state and local comprehensive plans, the state would be better served by developing a wave energy framework for the Territorial Sea Plan. Jim Hastreiter indicated the concern that the Commission might get the sense that a cap would be a backdoor way to kill wave energy. He suggested taking

a look at Oregon's ocean plan and TSP to see if wave energy proposals are consistent with those planning documents. Scott offered that a cap would help address just one element -- some assurance of a policy limit -- but not address the high level of impacts on one section of the coast.

Fred Sickler suggested the need for doing something to address potential visual pollution related to wave energy facilities, especially the facilities proposed for jetties along the coast. If there were a facility on each jetty, it could be a real visual problem.

It was discussed that a "cap" could be part of the product of a cumulative effect and socio-economic study, and it would be informed by the results of those studies. After the October ecological effects workshop for scientists, an RFP could be drafted and brought back to the next OPAC meeting. It was also suggested that the state could develop a programmatic EIS, similar to the MMS's programmatic EIS for alternative energy. Wave energy pilot projects could "tier off of that." The state could develop a cumulative effects/socio-economic analysis, and the results would be incorporated into a framework plan, that would include siting criteria focused on location. There was consensus that this option, as well as the option of setting a "cap," was to be brought forward to the full OPAC the next day.

Onno indicated that if Oregon made amendments to its comprehensive plan (under the Coastal Zone Management Act) Oregon might have leverage with FERC. Wave energy facility siting must have "consistency" with Oregon state comprehensive plan under the Federal Power Act. Onno suggested that as a backup plan, Oregon could "Go congressional," to try to make it more explicit and direct that state requirements for ocean zoning of wave energy need to be considered. OPAC could recommend that the Governor ask Oregon's congressional delegation to seek amendments to the Federal Power Act (Energy Bill) to provide for (restore?) state input.

Terry Thompson suggested that if Oregon goes with a statewide framework and cumulative effects study it should be done as a "segmented coastal management scheme" to make sure local concerns about crabbing grounds would be addressed -- the effort should be "broken down into units smaller than a coastwide look." He also stated the concern that a "cap could be viewed as making an allocation. Or that a cap could drive the industry offshore where there is no management." Someone suggested that a "cap" might cause a "gold rush" within the industry to stake a claim on sites along the Oregon's coast. Someone else suggested that, on the positive side, a cap could create the incentive for companies to condense their projects into smaller areas. A question was raised about whether or not buffer zones were included in that one percent cap figure. The reply was that they were not. It was also offered that OPAC could have a role in gathering public input to inform ideas about siting criteria for wave energy facilities.

David Allen pointed out that the timing seemed right for a request to OWET during the first quarter of next year for a framework/cumulative effects study, and that the framework should include an analysis of the socio-economic effects.

It was discussed that there should be a steering committee that should be set up to have oversight of the state framework/cumulative effects/socio-economic study. Robin asked if that might be an opportunity to establish a Joint Review Panel as outlined under Part Two of the TSP with the goal of the framework to establish siting criteria and/or maps. The meeting was adjourned.