

## MEMORANDUM

Date: October 8, 2012  
To: Territorial Sea Plan Advisory Committee  
From: Rebecca O'Neil, Oregon Department of Energy  
RE: TSPAC Energy Subcommittee report

---

The Energy Subcommittee of the Territorial Sea Plan Advisory Committee (TSPAC) convened twice: September 17 and October 8.

At these two meetings, the subcommittee worked through all of the proposed sites, amended the boundaries of some sites and set others aside. This memo summarizes the current suite of sites under consideration and offers potential guidelines for TSPAC consideration as the committee works to advance a proposal for LCDC.

### STRUCTURE / SIDEBOARDS

The energy subcommittee struggled with voting on sites in the first meeting. None of us have a clear picture of the overall number, footprint and value of the sites to be selected. As a result, the group brainstormed a series of structural concepts, also called sideboards. They are grouped below into “ceilings” (“no more than one site per county”), “floors” (“no less than 5% of the Territorial Sea”) and other concepts that are not currently integrated into Part 5.

#### Ceilings

- Cap total square mileage leased for wave energy
  - Within the Management and Conservation Areas
  - Within a given site
  - Within a section of the coast (North/Central/South)
  - Sites must be large enough to accommodate a cap
- No more than one site per county (spread the spatial pressure)
- Limit the number of sites located within a certain distance from a port
- Limit the size of any one site

#### Floors

- At least % of Territorial Sea is a Development Area
- Minimum size of a site
- At least one site per county (spread the opportunity)
- Ability to support all technology depths, especially nearshore technologies that cannot work in the OCS
- Contiguity with the OCS where possible
- All sites must have minimum characteristics for a feasible site

#### Concepts

- Local consultation
- Goal 19 exceptions
- Micro-siting a project within a site
- Review spatial plan in 10 years

- Develop certain sites first, or last
- Proving up technology over time / site phase-in
- Direction to BOEM planning on the significance of connection between sites and the OCS

**SITE SUMMARY**

There are currently nine (9) sites under consideration in the energy subcommittee. Below we have detailed the potential benefits and concerns of each site. Appended to this memo is a spreadsheet of the site sizes and attributes in each decisional iteration.

**Energy subcommittee history of sites removed from consideration**

Five sites were removed from consideration from the original 13 sites proposed by OWET:

- Lakeside
- Port Orford
- Tillamook Bay
- Florence
- Brookings

The first four were considered less optimal sites on September 14<sup>th</sup> and removed from further consideration.

The Brookings site was discussed at both energy subcommittee meetings, with consensus that the site was less optimal due to the combination of low development feasibility and proximity to high value ecological resources.

<b>BROOKINGS</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
Deep water site (more than 50m depth)	Site of greatest concern to conservation community
High value for BPA grid, increased electric reliability for community	Proximity to Mack Arch Reef and high value ecological resources; bathymetry subtidal rocky reef; Level 1 Marxan
Community interested in wave energy, would benefit from increased infrastructure	Cabling to shore very difficult
Avoids Level 1 Dungeness Crab Port Maps Combined Value (PVC)	Very far from a deepwater port
<ul style="list-style-type: none"> <li>• <b>Consensus not to advance this site</b></li> </ul>	

The subcommittee expressed concern that creating sites with little to no wave energy viability is undesirable. This is not only because it would not help the industry grow, but that it would send the wrong message to nearby communities and existing users of the area.

**Nine sites remaining under consideration**

The energy subcommittee has eight remaining sites derived from the original OWET set. In addition, SOORC suggested an area that overlaps with the southern part of the existing OPT Coos Bay preliminary permit site. The energy subcommittee tabled a conversation about this site, called “Lakeside Revised,” as none of the parties have reviewed the proposal.

The nine remaining sites are:

- Gold Beach
- Langlois
- Lakeside (revised)
- Reedsport
- Waldport
- North Newport
- Nestucca Bay / Pacific City
- Tillamook Rock
- Camp Rilea

<b>GOLD BEACH</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
Mid-depth technology site	Over 70 miles from a deepwater port
Very energetic climate	Dangerous bar crossing
Better for BPA grid and system reliability/resilience	Rogue and Chetco River deposits and pushes out significant sediment
Near electrical infrastructure / substation	Near subtidal rocky reef, Marxan hotspot
	Does not work for deep or nearshore tech, sense that mid-depth devices will shift to deep water or not prove out, so limited device application
	May conflict with recreational fishing
	Significantly downsized to avoid dredge disposal, may be too small
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site, but limited value for wave energy</b></li> <li>• Proposals to (1) amend site boundary to OCS; or (2) move entire site northwest to Management areas, although may not be viable for energy as distance to shore extends 6+ miles.</li> </ul>	

<b>LANGLOIS</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
Top site for wave energy development	Increases pressure on Coos Bay port, site density
Best candidate for large site - ~25 sq mi	Not captured on maps, but described as prime crab habitat
3 substations	Proximity to Blacklock. Interest in increasing the ecological and aesthetic buffer. (Current distance is 1.5 miles.)
Private land and limited shore view impacts	Effect on smaller fleets
Covers green areas from resource inventories	
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site, but area where sideboards will be essential</b></li> <li>• Proposal to shift the site back to the north, increasing buffer to Blacklock.</li> </ul>	

<b>REEDSPORT</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
One of the top sites for wave energy development	Cumulative effects of OPT, potential P MEC, and site
Community that wants renewable energy, needs economic development	Nearshore environment very challenging for development; logs and sand production from Umpqua
Substations present, may be P MEC site in OCS	Winter and summer steelhead migration, snowy plover habitat
Supports nearshore technology	Takenitch north of site, valuable for coho production
Site moved to nearshore to avoid fishing impacts	Effect on smaller fleet out of the Umpqua
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site</b></li> <li>• Proposal to (1) shift site out to mid-depth, but will hit crab maps; or (2) expand the site into the mid- and near-shore space and use sideboards on total development.</li> <li>• OPT to provide detail on spatial development plan within its site, for single buoy and 10-buoy phases.</li> </ul>	

<b>WALDPORT</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
Conservation thinks site has potential	Not strong for wave energy development
May have electrical infrastructure but smaller substations with less availability (C. Lincoln PUD)	FISHCRED says reject, adjacent to MPA (although crab pots are permitted in MPA)
Near resource inventory green areas	Presence of marbled murrelet
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site.</b></li> <li>• Proposal to expand the site and use sideboards on total development.</li> </ul>	

<b>NORTH NEWPORT</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
One of the top wave energy sites	Cumulative impacts to the port and fleets with NOOTS, potentially P MEC, and additional site
Proximity to deepwater port and substations, good for multiple depth devices	Initial FINE consultation on amended site to 1.5 sq mi, sense that community is already actively supporting wave energy and should get fewer developments in the future.
	Cabling south of Yaquina head because of unstable geology north of the head.
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site.</b></li> <li>• Abuts existing NNMREC site (NOOTS).</li> <li>• Proposal to amend the site to ~1.5 sq mi directly north of NOOTS.</li> </ul>	

<b>NESTUCCA BAY / PACIFIC CITY</b>	
<b>Potential Benefits</b>	<b>Concerns</b>

One of the top wave energy sites	Proximity to aesthetic views and community
Strong for shallow and mid-depth devices, close to electrical infrastructure	May conflict with Pacific Dorymens fleet. No actual data in Marine Map, extrapolated data anticipates no conflict.
Resource inventory “green areas”	
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site.</b></li> </ul>	

<b>TILLAMOOK ROCK</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
OK for deepwater technology	High aesthetic value and views from Ecola, difficult for deepwater technologies to avoid aesthetic impacts
FISHCRED supports this site, but recommended consulting with local fishing community	Recreational surfing (top quality lefthand point break)
	Not strong for wave energy, cabling to shore
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site, but limited for wave energy.</b></li> <li>• On request from TSPAC, Peter Huhtala consulted with Astoria fleet and heard concerns about this site.</li> </ul>	

<b>CAMP RILEA</b>	
<b>Potential Benefits</b>	<b>Concerns</b>
High viability for nearshore wave energy devices, supported by feasibility study	Significant conflict with fishing / crabbing
Nexus with National Guard, need for renewable energy at Camp Rilea, Net Zero program, funding and demarcation of the live fire zone	OK with testing but concerned about buildout
Presence of live fire zone for 260 days/year	
Interest in linemen training getting hands on experience with wave energy	
Clatsop Co Commission support with caveat that must work with fishermen	
<ul style="list-style-type: none"> <li>• <b>Consensus not to eliminate the site, but continue conversation between ORNG and Astoria fishing community.</b> By request of the TSPAC, Peter Huhtala hosted a meeting at Camp Rilea on 10/5 to vet concerns. Generally positive meeting, major topics are scale of development (testing to buildout), mooring system, minimizing effects, no economic displacement, communication channels and points of contact, and coordination around the live fire zone.</li> <li>• May need to use goal exception process</li> </ul>	