

2006 CONFERENCE WORKSHOP RESPONSES

“Oregon’s Ocean: Linking the Science to Policy”

Issue: WAVE ENERGY

How and on what scale should Oregon move forward with proposals for research and commercialization on ocean wave energy conversion?

Table 1:

(Names of leaders/participants are not included. Table numbers do not correspond to original table numbers at the conference.)

- There should be lots of emphasis on energy production.
- There are obvious economic benefits. But a careful systematic process is necessary. A new industry should not be on a fast track without full understanding of all impacts especially potential adverse or downside impacts.
- Energy production must be brought along carefully; scale up but make careful analysis including environmental impacts and cost/benefit considerations.
- The cumulative impacts won’t be known for some time; exercise caution.
- Economics will prove out but natural resource impacts require some level of diligence to better address biological considerations and environmental impacts.
- It is suggested that a team approach with engineers and natural scientists (at OSU) be used.
- Is county oversight needed? Federal and State oversight should be adequate/sufficient. The role of the county should be taxation and franchise fees not site selection.

Table 2:

- The buoy parks should be considered to be marine reserves (actual or de facto). Wave energy needs a good deal of research and thought. There may be more fish, but that’s because of new structures being placed over soft sediment.
- Encourage continued progress of the testing and evaluation; the offshore development needs to happen quickly; FERC should move quickly. Probably should start with a *group* of buoys not just a single one but make sure the multi-buoy park is closely studied. There needs to be someone or some group serving as a constructive critic/skeptic. Make sure same mistakes as occurred with dams are not repeated.
- Someone needs to be assessing EMF impacts on fish and other organisms.
- Before the “gold rush” to develop wave parks along the entire Oregon coast begins, the state needs to develop a carrying capacity for the coast. How many parks allowed; how/where they will be sited.

Table 3:

- Proceed as rapidly as possible to test different technologies on a pilot scale.
- Coordinate research, planners, regulatory and outreach efforts.
- Address potential conflicts and integration with the fishing industry which is already stressed.
- Integrate wave energy sites with other spatial set asides (sanctuaries or marine reserves).

Table 4:

- How does this address or affect global warming? This should be assessed and researched.
- Stay to guidelines; go slow; to go fast stay on a thoughtful course of progress and include research.
- Development should stay at the state level—research costs, development costs are too much for a county to bear. Federal level may dilute; county might be too expensive. Permits issued at the county level is ok.
- State should provide overall context with planning goals.
- There is a need to develop clean. local energy sources. If commercially viable proceed with greater emphasis. There needs to be collaboration with public/private groups with control at local of impact to streamline and be in touch with stakeholders.
- Energy is a foreign policy issue. Feds need to be involved in at least the funding.

Table 5:

- There are many trade-offs: Research and development before deployment: This can generate efficiency and therefore reduce costs. It can evaluate environmental impacts.
- Move quickly within these constraints.
- Expand only if cost-effective and continue to promote power conservation simultaneously.
- Wave energy is an exciting possibility; Oregon can become a leader in new technologies.

Table 6:

- Wave energy is an example of a technology being used in our environment not initially thought of in the past.
- The proposals in this morning's presentation seemed reasonable.
- The ability to find a portion of the coast for a wave energy park needs to be balance with other needs and uses.
- Look into environmental and ecosystem impacts during the testing process.

Table 7:

- Will there be contamination of effects: marine mammals, whales?
- It's environmentally friendly including the OSU equipment.
- Needs to be integrated with reserve planning.
- There are positives and negatives with this new technology.
- Identify research protocols.
- Be aware of technology of other nations.

Table 8:

- Research should proceed with a variety of technologies at diverse sites so as to identify the best option for commercialization.
- Care should be taken to protect the environment and preserve the natural beauty of our coast.
- Possibly combine wave energy farms with marine protection areas which are off-limits to fishing.
- Inevitable conflicts will arise over state and local (county) jurisdiction and need to be addressed up-front.

Table 9:

- Move forward based on mandates for renewable energy sources. Policy is inevitable... technology needs to catch up.

- The harsh nature of the marine environment suggests very significant maintenance issues for a wave energy array. This will be another element of a long learning curve.
- There is a need to develop broader marine technology base within Oregon. There will be a spin off of marine technology needed to support wave energy; this may be an opportunity for community colleges. For example: sea deployment and maintenance of energy converters, cables, moorings, etc.
- Wave energy development needs to be linked to ecological studies of its effects.

Table 10:

- Five million dollars needed for research now.
- A one to two year study will be needed to investigate impacts.
- Identify specific interests of any negatively affected stakeholders.
- Continue work to communicate with broad fishing community.
- Provide ongoing information to public. For example: use Town Hall meetings convened by local organizations with invited “experts.”
- An issue to contemplate: Ownership—public ownership vs. private commercialization.
- First do a prototype and then scale up.
- Keep a focus on how to really create good-paying jobs locally.
- Foster the industry so that it develops in Oregon.
- Document the process since it appears to be having good cooperation.

Table 11:

- Oregon should move forward.
- Progress with Gardiner site uses existing infrastructure, test technique there.
- Pace is good; we need the energy source.
- Pace may be too slow; we have an energy crisis and need to move forward.
- Permit process is new; it may need some figuring out.
- Initial process should one buoy then an array will allow information.
- Even 12 buoys not enough; may need 24 to 36.
- Focus on alternative fuels determines need.
- Must get going to get over inertia and government bureaucracy.
- Priority for a research facility at OSU.
- Look at recent studies on fisheries and oil platforms particularly effects on vertical habits and recruitment.

Table 12:

- Start with the prototype; continue contact with local council of stakeholders and agency folks.
- Ongoing research and scientific monitoring needed then add more as data suggest.
- (We are) very supportive with a couple of cautions.
- Try at more than one location with more than one device.
- Oregon should be a leader.
- (We) agree with the presentation.
- Start small in steps with caution; lots of unknowns.

Table 13:

- Move forward on R &D.
- Caution on commercialization; i.e. pilot project.

- Coordinated plan with all stakeholders.
- Review plan/model with community.
- Impact from wave ‘take.’
- Local stakeholder input is critical.
- The challenge is to move forward cautiously and dampen the ‘Gold Rush’ mentality.

Table 14:

- It could be a big boost to the local economy but there are numerous questions regarding seafloor impacts; noise plus other impacts on fish, mammals and on fisheries which depend on them. Also of concern is impact on views from shore.
- Move forward carefully and make sure fishermen, *and* other users get a seat at the table.
- The state should take a stronger leadership role; not let one county take the lead for such an important state asset *or* encourage other local governments to get involved.
- Wave energy should be science driven—test plot on a decent scale.
- Glean science from other countries—don’t reinvent the wheel if not necessary.

Table 15:

- Research should be coupled to impact.
- Test prototypes and scaling from 1 – 12 using several locations.
- Put in places with existing infrastructure.
- Go county by county to give later counties the advantage of expansion.
- Should know if small ones sprinkled around vs large ones more effective.
- Statewide oversight needed.
- Work with industry to define high transit areas’ some small boats might not be aware of them.
- Use education to capture imagination to get people aware and involved.
- Base movement forward on experience of other counties.
- Know impact on marine life before large implementation.
- Be a little skeptical of new technology.

Table 16:

- Develop as soon as possible.
- Determine scale based on ecological impacts.
- Take advantage of flexibility.
- Need a coalition of coastal communities. Coastal voice is underrepresented at county level; counties need a strong voice.
- Governor could help make a coastal coalition with teeth a reality.
- Source of the power will be on the coast; but the people pulling the strings are in the valley.
- Check with the whales!