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FERC ID #F165295

June 28, 2007

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Via: E-mail + Confirmation copy by postal mail.

Re: Finavera Renewables Ocean Energy, Ltd.. - Project No. 12751-000 Washington --
Proposed Makah Bay Offshore Wave Energy Pilot Project

Olympic Coast Alliance (OCA) herewith submits comments on the proposal by Finavera Renewables Ocean Energy, Ltd., for a Makah Bay Offshore Wave Energy Pilot Project to be located in the Pacific Ocean off the northwest coast of Washington State within the exterior boundaries of the Olympic Coast National Marine Sanctuary [OCNMS] as established in 1994. OCA became aware of this project in 2005, when the proposal was under the auspices of the AquaEnergy Group, Ltd., prior to that firm being acquired by Finavera Renewables Ocean Energy, Ltd.

Olympic Coast Alliance is a nonprofit, 501(c) 3, tax exempt citizen organization, founded in 2003 and incorporated in the State of Washington in 2004. The purpose of the Olympic Coast Alliance is “to assure a healthy coastal ecosystem through public education and outreach, conservation issue advocacy, Olympic Coast National Marine Sanctuary support, stewardship programs, and a strong working relationship with coastal tribes.” OCA strives to increase public appreciation and guardianship of the OCNMS, together with its surrounding waters and adjacent uplands.

Not being formally established until 2004, Olympic Coast Alliance had not, of course, participated in the earlier scoping process for the project. OCA began to learn a little about the aqua buoy wave energy proposal in 2005, learning more in 2006. Members of OCA’s Board of Directors have reviewed the Environmental Assessment initially prepared by the AquaEnergy Group. OCA has also reviewed and closely examined FERC’s subsequent Makah Bay Offshore Wave Energy Pilot Project EA, prepared following FERC’s review by its Office of Energy Projects of the application for an original license.

Olympic Coast Alliance is concerned, first, about the use of a Sanctuary for testing this technology. It is well understood key purposes of our nation’s Marine Sanctuaries are “to maintain their natural beauty and diversity. ...goals... are to protect the marine resources through education and research and by encouraging compatible uses.”

It is also of interest to note that a commercial firm, Patagonia, devoted its 2006-2007 public activities “to the oceans”. It is further noted legislation had been introduced for a comprehensive

“Ocean’s Bill” that would result in NOAA becoming a “freestanding scientific agency...for ... finding solutions to problems such as pollution and invasive species.” This Senate bill would have prohibited NOAA from “issuing any leases for fish farms and wave energy plants or wind energy facilities in the open ocean until national standards are written that take into account the downsides for the ocean and fisheries.” The offshore wave energy project can certainly be termed an “invasive” structure.

We believe it would be most appropriate for FERC to take into further consideration the aims of the proposed Ocean’s Bill before it grants a license for the proposed aqua buoy energy project.

OCA recognizes the need by the Makah Tribe for more accessible electric energy. However, why is it not possible to upgrade the electric power lines to the Makah Reservation from the Clallam County Public Utility District, to forestall their being “knocked out of service” periodically? It should also be quite apparent that an alternate sources for transmission of land-based energy to the Makah. area can be a carefully sited power line from the Bonneville Power Administration.

It is amazing to find that FERC minimizes the purposes and goals of Marine Sanctuaries. It is amazing to read FERC’s conclusion, “Finding of No Significant Impact”. In carefully reviewing this EA, and as FERC reiterates in its “Finding”, we find it especially surprising, and of great concern, that FERC, quite consistently throughout the EA, determines that just about every identified adverse effect is “**minor**”. The word “**minor**” is used over and over. It really comes across that FERC appears to have reached its “No Significant Impact” conclusion when beginning its review and, therefore, this experimental proposal becomes, for FERC, a “compatible” use within a dedicated National Marine Sanctuary.

Olympic Coast Alliance asks:

Why has FERC not required alternate sites, outside of any National Marine Sanctuary, be identified and reviewed for this pilot project?

Why should it be possible for a non-compatible project, as is that advanced by Finavera, to be able to “invade” any Marine Sanctuary or Marine Protected Area?

What other sites could be available for this experimental technology – outside of National Marine Sanctuaries of the United States or elsewhere in the world?

Why does not Finavera propose an alternate site – other than in an area already established to protect all its natural environment? Certainly, Finavera’s proposed experimental aqua buoy wave energy project is not a “compatible use” ever envisioned within a Marine Sanctuary.

Finavera, a European firm, now also with a base in Canada, has indicated it has operations underway worldwide. What other areas might be more appropriate for the company’s experiment without compromising a dedicated natural marine area??

It is noted FERC's "Finding" specifically states: "...the issuance of a license for the Makah Bay Project, with our recommended environmental measures, would not constitute a major federal action significantly affecting the quality of the human environment."

FERC is in error, perhaps being unfamiliar with National Marine Sanctuaries and Marine Protected Areas. The issuance of a license to install and operate this project within the Olympic Coast National Marine Sanctuary is most assuredly a "major federal action significantly affecting the quality" of not only the Sanctuary's "marine environment" but in satisfaction of the "human environment". This Finding implies this segment of the ocean in Makah Bay does not have a relationship with this project in a marine environment for other than humans.

As a part of the human environment, the Olympic Coast National Marine Sanctuary relates to human learning and human understandings while protecting this area of the ocean's waters and its associated marine life.

Even though identifications in FERC's EA take into account adverse impacts to marine inhabitants --- including cetaceans, fish, seabirds, elasmobranchs, marine vegetation, and geologic structures, and the water columns --- it is especially surprising to find FERC staff deciding such impacts would be "minor" !!

Olympic Coast Alliance is greatly concerned about the use of the OCNMS for testing this technology. We wish, again, to emphasize that this project is proposed to be sited in an area with one of the most diverse marine mammal assemblages in North America -- as FERC seemed to acknowledge adverse effects to these, but, then, after "analyzing" them, basically ignores them.

OCA is also particularly concerned about the effects of climate change on the marine environment. We recognize a significant benefit could result from appropriately environmentally sensitive technology sited in an appropriate place. A Marine Sanctuary is not an appropriate site.

Of great concern to OCA are the effects on the non-human environment. We emphasize, again, the fact that this project is proposed to be sited in an area with one of the most diverse marine assemblages in North America -- as FERC apparently recognizes.

FERC needs to be cognizant of the Juan de Fuca Eddy, its extensive overlap in the Olympic Coast National Marine Sanctuary, and the Eddy's influence on the proposed project area. The Juan de Fuca Eddy is a nutrient-rich marine area at the mouth of the Strait of Juan de Fuca that creates one of the region's most productive ecosystems, driving marine productivity throughout Puget Sound, the Olympic Coast, and west Vancouver Island of Canada. This area is among the most important fishing grounds on the west coast of the United States and Canada for both commercial and sport fisheries and continues to sustain native communities who trace their use of the area into millennia past. The region is second only to George's Bank in terms of richness per unit area. Regionally, the Eddy has a significant influence on inland waters, biota, and commercial fisheries. Globally it is

significant in terms of its productivity and species richness. Two countries and many nations rely on the sustainability of this ecosystem for their sustenance and their economies. With the export of fish taken into account, the area is of global significance due to world consumption of salmon, shellfish, invertebrates, and forage fish.

In terms of biodiversity, the Juan de Fuca Eddy has more species than any other region for seastars, rockfish, polychaetes, and amphipods, and is particularly important as a migration corridor for many species of birds, fish, and marine mammals. Endangered killer whales and transient grey and humpback whales feed on the abundance concentrated in the nutrient-rich quasi-permanent eddy. Salmon and hake are both represented in the Eddy in exceptional numbers. It is important as a biogeographical transition area, at the southern limit for northern species, and the northern limit for southern species.

Important conservation areas within the influence of the Eddy include the Pacific Rim National Park to the north on Vancouver Island, the Cape Flattery National Wildlife Refuge (NWR), the Olympic Coast National Marine Sanctuary – one of only thirteen federally designated sanctuaries in the United States – and the coastal zones of Olympic National Park, a World Heritage Site and biosphere reserve. However, the Juan de Fuca Eddy is not a protected area in its entirety, and its unique attributes and enormous values to a wide range of interests are poorly understood in a bioregional context.

As described above, the Juan de Fuca Eddy is a component influencing the proposed AquaBuoy wave energy project.

To emphasize, again, FERC's continued use of "very small" and "minor" are qualifiers which are not appropriate descriptors for an aquatic environment in which there are currents that will transport pollutants to other places. It is inconceivable that any pollutants would remain only in the vicinity of the project, as FERC staff asserts. How far would any pollutants travel? FERC seems to ignore this potential by the currents in the Olympic Coast National Marine Sanctuary.

OCA will not be mentioning each and every area discussed in FERC's EA, but will identify a few. We are concerned about long term effects anticipated to be associated with the project's operation and maintenance, including:

- "Minor" risk of paint sloughing or chipping. FERC and Finavera recognize this potential and hope to find a satisfactory product. The EA could have been more specific as to what needs to be avoided in the known toxic ingredients in paints, such as copper, mercury, and lead. It is recognized that these are of particular concern to benthic organisms and animals, including gray whales feeding on benthic substrates.
- Minor amount of marine benthic habitat. What is the project's footprint in context of the overall Sanctuary? "Small" is not necessarily "minor".
- "Minor" amount of marine water – 95 surface acres. What is the percentage of these acres in OCNMS?

- Buoy mooring lines, chains, and the VLA in contact with and below the seabed? FERC does discuss these. However, the discussion and impacts should be receive a more thorough review and analysis, including potential impacts beyond the immediate project's vicinity.
- FERC recognizes buoys can break loose. Such possibilities would be of major concern for intertidal areas and beach areas, where these could land. Since these buoys will also contain a variety of types of equipment, etc., including fluids, there will need to be constant supervision -- and not just an occasional visit to check things out. They will be a major hazard – not only for other sea craft but for the intertidal areas and beaches of Olympic National Park (as noted earlier, ONP is a World Heritage Site and a Biosphere Reserve) and the Flattery Rocks National Wildlife Refuge. ONP's coastal area and waters and those within the NWR are also designated "Wilderness". Contrary to FERC's assertion that these areas are not close to the project area, they are, indeed, close enough to receive not only "rogue" buoys but be subject to effects of contaminated or polluted water emanating from the project.
- It is really difficult to evaluate seafloor disturbance without there being a firm plan regarding the installation method for placing the cable and the installation of the VLAs.
- The potential for barges that occasionally transport oil through the Sanctuary is another possibility for snagging tow lines and causing spills of any size. This is of significant concern. Oil contamination can have long term adverse effects not only within the Sanctuary but on nearby waters, including the tidelands of Olympic National Park and the National Wildlife Refuges.

Electromagnetic Impacts: Should FERC conclude to issue a license to Finavera, both the firm and FERC need to assess Electromagnetic impacts in a more rigorous manner prior to undertaking the Project than it has done in this EA. Finavera should be required to conduct an engineering analysis of EMF strength associated with the 3.7 mile long transmission line in advance of any potential licensing. Among OCA's concerns: What exactly is the metallic sheathing? How far will B field induced electric fields travel? What is the area that can be impacted? What is the impact to the marine populations. What adverse effects could B field emissions have on marine organisms. FERC mentioned there are too few studies and this is a relatively unknown issue, therefore, additional research is needed before going ahead with this project.

Cumulative Impacts: The aqua buoy wave energy project adds further dangerous hazards in the Sanctuary to existing dangers confronting marine organisms already exposed to significant fishing and transportation activity – even though those are under some control by OCNMS.

Atmospheric and Aquatic Noise

FERC's EA recognizes adverse noise effects on fish, gray whales, other marine mammals, including sea lions, seals, sea otters, sea birds, sea turtles, and other sea life. Saying these could be "minor" is inadequate, at the least

Noise is of especial concern. Existing noise pollution is already an impact on marine mammals. Additional noise sources need to be prohibited within the Sanctuary.

Olympic Coast Alliance notes FERC's description of the adverse effects from the use of proposed "pingers" – that such steady and persistent noise can be disorienting to a variety of the sea's creatures living in or passing through the Sanctuary. By no means should "pingers" be allowed. FERC should be aware similar concerns have been expressed about any use of sonar by the U.S. Navy in OCNMS.

Initial baseline surveys of benthos and water column organisms. OCA considers it important to establish pre-project conditions. If the project does go ahead, follow-up surveys are essential at various times throughout and at the end of the project. Certainly FERC well knows that water columns do not stay put.

OCA agrees with all of the conditions NOAA is requiring. This includes those FERC deemed administrative. In our opinion, all are essential for FERC to concur with before issuing a license for this experimental and, from the EA, a potentially very hazardous project in one of the nation's most sensitive marine areas. What FERC terms "administrative" are essential to be in place and adopted before proceeding with this, or any other, proposed experimental wave energy project.

Monitoring should definitely be on a bi-monthly schedule at the minimum. Only by frequent check-ups can any damage from the project be assessed in a more timely fashion.

Monitoring and funds for oversight and evaluation need to be handled by a neutral party – not by Finavera alone, or its "partners"..

Bonding, in advance, needs to be required from Finavera Renewables Ocean Energy, Ltd.,

Prior to starting construction of the project it is essential that plans and funds be in place (reserved and guaranteed) for decommissioning the project.

Even though FERC staff recognizes little is known about how this overall project will function properly, and FERC recognizes numerous adverse effects to practically all aspects of the marine environment, Olympic Coast Alliance emphasizes that both Finavera and FERC staff are putting too much faith in any adverse effects as being, basically, unimportant – that is, "minor" or "not likely to affect", etc.

FERC and Finavera are much too willing to give short shrift to potential deleterious effects to Olympic National Park's nearby coastal area. They more or less brush off the nearby National Wildlife Refuge islands. The agency and the company put too much "faith" in asserting these areas are not in the immediate vicinity of the proposed project. This is a mistaken assumption. It is amazing to learn that, in essence, FERC assumes a project so close to both Olympic National Park and the Flattery Rocks National Wildlife Refuge are, in FERC's and Finavera's opinions, not at

all close. Those who are well acquainted and familiar with the area, do know these nationally sensitive and protected areas will be under threat from the nearby proposed wave energy project.

In general, Olympic Coast Alliance is cautiously willing to go along with the Makah Bay Offshore Wave Energy Pilot Project, but that this proposal is strictly a pilot project, that a maximum license, if granted, will be for no more than five years.

OCA would prefer FERC to require Finavera, the new “project owner”, to provide alternate sites in areas other than in established Marine Sanctuaries and Marine Protected Areas.

In the opinion of Olympic Coast Alliance, the two separate FERC staff proposals, as set forth in the EA, do not constitute valid project alternates. Alternates, to be discussed, should, at the minimum include one additional physical project site – to be at a different location than in Marine Sanctuaries and Marine Protected Areas.

Again, OCA’s cautious support is in recognition of the Makah Tribe’s need for readily available electric power. However, as we proposed earlier, funds should be identified and appropriated to bring to the Makah Tribal Reservation electric power from other sources, such as BPA.

OCA knows the U. S. Treaty with the Makah Tribe includes continuing access to its “usual and accustomed” fishing and hunting areas, also encompassing offshore waters. It would be travesty if this pilot project did not conclude after five years and escalated to 50, 75, or 100 aqua buoys – a possibility we understand was earlier indicated by the original company. That would be the beginning of the end of the Olympic Coast National Marine Sanctuary as well as the end of the current cable-free fishing area for the Makah people and other fishing interests.

OCA does hope FERC is not so blinded by the possibility of the newly being developed aqua buoy wave energy potential that it continues to brush aside the fact this would be in a major National Marine Sanctuary. Although Olympic Coast Alliance cautiously assents to the project, to be limited in extent and time, we find it is a project that is inappropriate for and does not belong in the Olympic Coast National Marine Sanctuary.

Sincerely,

Polly Dyer, President
OLYMPIC COAST ALLIANCE

cc: [via surface or email]

U.S. Senator Patty Murray
U.S. Senator Maria Cantwell
Congressman Norm Dicks
Congressman Jim McDermott
Congressman Brian Baird
Congressman Jay Inslee
Congressman Dave Reichert

cc (continued)

Governor Christine Gregoire
Ben Johnson, Jr., Chair, Makah Tribal Council
Carol Bernthal, Superintendent, Olympic Coast National Marine Sanctuary
Washington State Dept. of Ecology
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William Laitner, Supt., Olympic National Park
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Sierra Club, National Office
National Parks & Conservation Association, Northwest Region
National Audubon Society, Washington State
National Wildlife Federation, Washington State Chapter
Seattle Audubon Society
Admiralty Audubon Society (Olympic Peninsula)
Grays Harbor Audubon Society
The Wilderness Society, Northwest Region
The Mountaineers
The Nature Conservancy
Olympic Park Associates
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