

DOCKETED

Docket Number:	17-MISC-01
Project Title:	California Offshore Renewable Energy
TN #:	250753
Document Title:	Sarah Naiditch Comments - Humboldt OSW Sea Space siting
Description:	N/A
Filer:	System
Organization:	Sarah Naiditch
Submitter Role:	Public
Submission Date:	6/27/2023 1:05:48 PM
Docketed Date:	6/27/2023

*Comment Received From: Sarah Naiditch
Submitted On: 6/27/2023
Docket Number: 17-MISC-01*

Humboldt OSW Sea Space siting

Additional submitted attachment is included below.

Re: Docket CA OSW 17-MISC-01

Dear Chair Hochschild, Commissioners, and Staff

I have two main concerns: long term stability of the location as it affects the seismically active overlapping tectonic plates. Also a concern about sound as an agitating element on the geotectonic slip zone.

The Cascadia Subduction Zone is a major active earthquake fault line. And not a stable place to anchor offshore wind towers.

The proposed leasing of areas off the coast does not adequately consider the tectonic movement of our planet's plates.

Recently, *a continuous 10 mile-long shelf* off Petrolia rose from the sea to four feet above sea level. This occurred overnight, barnacles, sea urchins, sea palms and all. The Fortuna/Scotia/Petrolia/Shelter Cove area have proved repeatedly to be seismically active since I have been here on the Humboldt Bay. Crescent City is prone to tsunamis.

Bayside sits along the Rift of the Triple Conjunction of the Cascadia Tectonic Plates.

The North American Continental Plate lies along the Pacific Plate and the La Gorda Plate. The Pacific Plate is adjacent to La Gorda and the Juan de Fuca is a portion of the La Gorda Plate and extends north towards the Aleutian Islands of Alaska.

The San Andreas Fault Line, traverses California interiorly along the contour of the coastal range and the central valley, and 'heads out' here via the Fortuna/Scotia/Petrolia/Shelter Cove area.

It strikes me as too painful to contend... whether the "wires and cables, the posts and spinners" projected as soon-to-be-located, should be on the North American Continental Plate or on the Pacific Plate, *or on the slip zone where the Pacific Plate dives beneath the land mass of the Continental Plate*. The Pacific Plate slides beneath and crunches the North American Continental land plate.

Any casual look at the topographical relief maps of U.S.G.S. will reveal that between our Bay and the inactive volcano of Mount Shasta, there is *a very impressive accordion of sheer granite verticals and precipitous descents*. Mt. Shasta is a mere 200 miles away 'as the crow flies'. I have a photo of our Humboldt Bay with Mt. Shasta rising behind. The State Parks Tourist Center in Weaverville has a relief map on their wall that illustrates an accordion-like topography between our Humboldt Bay and the Central Valley. This is due to thrust from the Pacific Plate.

Being a resident who has been here for only three decades, it is not uncommon for a car loaded with young persons to go down off the cliff and die without survivors: the narrow ledge of HWY 299 is carved along one of the accordion's bellows.

The U.S.G.S. topo relief I hope to share with you, shows the land, but does not show the depth of the ocean floor in relief. None the less, we are on what is familiarly called the Subduction Zone, also known as "The Ring of Fire." This is common knowledge.

At the June 13 Eureka meeting sponsored by the California Energy Commission, I heard concern for possible impacts to marine fish and mammals. I heard concern for possible impacts to the long-established shipping lane with potential vessel entanglements with the array of cables and wires. I heard discussion of 'distance from shore' and consideration of 'depth of water'. All good and needful considerations.

What did not come across as a significant consideration is **the rift between two major plates**. The State of California has been funding Lori Dengler of HSU, for some time. Due to the last significant tectonic event here at this Bay, Lori Dengler has projected data on an event for the Humboldt Bay of a 9.1 magnitude on the Richter scale, for the purpose of a "what if" data base.

The last major event occurred on this Bay just over 300 years ago. Local indigenous witnesses of this event have orally passed down record. Also, scientists have gathered geological confirmation as to the height of the tsunami as it passed over the peninsula to this Bay.

Geologists and scientific experts have gathered data that indicate a periodicity of approximately 300 years. Of course, we all hope "Not in our life-time".

Please! let's not dismiss earth's Rifts. We are up against forces that seem calm, until you look a little closer.

The inland ridge between Hyampom and the coast is a better place to locate wind towers.

So! This is my proposal, and this is not unprecedented here, historically. *The longest continuous ridge on the North American Continental Plate is between us and Hyampom.* What is the wind sheer factor on this longest continuous ridge? The coastal range has wind preeminence.

The precedence already established was for a consideration of the most prominent peaks of our Coastal Range... for a rail.

In the 1880's through the early 1900's there was a very active push to put in a rail line between here and San Francisco. *Local peaks were being considered for the rail - to get the timber out to the growing city of San Francisco.*

Then the San Francisco Fire of 1906 devastated much of the city. The local timber barons rammed a rail along the bottom of the coastal canyons and got their product out for the much needed reconstruction of San Fran. This was entirely understandable, given human labor and "state-of-the art" means of the turn of the 19th century.

We are not currently working under such huge time pressure.

Yesterday was my first in-person attendance. I was impressed with the quantity of meetings that had already taken place and the research said to be recorded as data base. I was impressed with the forward thrust of investments, of the cautionary legal promises should the project not pan out, including legally binding promises that contractors 'would not be able to sell their way out of, to later buyers of the original contract' when it comes time to remove the infrastructure.

Who can really know the extent of the future upkeep needs of these structures? The Pacific Ocean is considerably more turbulent than the coast of Western Europe and Norway.

What has been observed in these other off-shore locations regarding generated sound and its effect on tectonic movement? Sound is a force to be reckoned with.

I sat next to a very bright woman who works for the California Energy Commission. She is an expert in transporting the energy along lines from production site to consumer usage sites.

The California Energy Commission expert was able to name other locations on our planet which have already-operative off-shore wind farms. I am interested in knowing more from those active projects in the Northern Hemisphere.

Each person is a valuable piece of the project. But who can genuinely assess the entirety?

I have two main concerns: long term stability of the location of "*the whole contraption of wires and cables, posts and spinners*", and a concern about sound as a disturbing element on tectonic movement.

Respectfully, this well-meaning project looks to me like a 'whole contraption' that is importuning for this environmentally virgin off-shore site. It is untried, and too confident. It already forebodes.

Also sound, both audible as well as above our human range of hearing, the *hertz*, will impact this zone. Winter storms with a high wind factor, are also times of increased earthquakes here: December and January, historically.

Sound is a force. "*Joshua fit the battle of Jericho. And the walls came a'tumbling down.*" How? With sound, reverberation. The tectonic Rift must be considered wisely. These are exceptional times. Our planet is already reverberating. There are unprecedented wind currents globally with never-before slip streams crossing our equator.

Given our government's standard practice of 'non-disclosure', denial is par for the course. The Federal Government's sonar weapons testing in the Pacific is a case in point; dolphins have died enmass. Photos show thousands of dolphins dead on the Chilean shore. Were they not distancing from the U.S. Federal weapons testing of sonar?

This project seems to me to be optimistic. There was evident hope in the room that this project will be enduring. The structural investment is ponderous and not genuinely

useful. Any dismantling will be *prohibitively* costly and laborious. **There are better ways to add electrical power to our population.**

The fishermen are communicating their alarm. One of their concerns is the known danger of traversing the mouth of our Bay. Real lives have been lost here. The Juggernaut of Project Promoters is dismissive, in my observation.

Is this energy plan one that **projects along the entire off-shore of California?** The maps given to the attendees illustrates this. This strikes me as overly confident.

Our coastal seas are vulnerable. Let the planet heal.

Our planet is a sentient being.

Sarah Laurence Naiditch,
Resident
Old Arcata Road, Bayside, California

<https://www.times-standard.com/2023/06/03/lori-dengler-are-there-any-places-with-no-earthquakes/>
Paraphrased from HSU Geology Professor Emeritus, Lori Dengler – June 13, 2023
Times-Standard:

On December 20, 2022, Ferndale/Scotia experienced a Magnitude 6.4 earthquake which extensively damaged numerous structures. Based on historic earthquake patterns, active faults, and stress calculations, it's not surprise that the Pacific Rim shows as one of the highest seismic zones, as it is almost entirely ringed by subduction zones. Residual stresses from rifting and collisions in the distant geological past contribute to induced seismicity and aftershock sequences.

The official maps are displayed in terms that engineers use for building design and infrastructure planning. The probability of shaking strong enough to damage structures over a fifty-year time window is what is usually mapped.

<https://www.gfz-potsdam.de/en/GSHAP%20-%20Global%20Seismic%20Hazard%20Map>

Cc:

Rachel MacDonald rachelmacdonald@energy.ca.gov

Scott Flint scott.flint@energy.ca.gov

Danielle Mullany danielle.mullany@energy.ca.gov

Lisa Gilbane lisa.gilbane@boem.gov

Dr. Lori Dengler lad1@humboldt.edu

Dr. Steven Hackett steven.hackett@humboldt.edu