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*Comment Received From: Catherine Buchanan*  
*Submitted On: 3/15/2024*  
*Docket Number: 17-MISC-01*

## **Offshore Wind Concerns That Are Not Being Addressed**

Electricity generated offshore still has to be able to come onshore, which means suspending high voltage lines in saltwater, and saltwater is an excellent conductor of electricity. The numerous aquatic species have the ability to detect a 0.000000001 volt. All electrical lines generate an electromagnetic field. Numerous species of whales, dolphins, salmon, sturgeon, steelhead/trout, rays, etc., all use the Earth's electromagnetic field to find their way around the ocean. Many species have ampullae of Lorenzini, electrosensory organs that detect the slightest change in electrical current in the water, the 0.000000001 volt, when their prey swims across their field. The goal of is carry GIGA WATTS through the water column. There will be a network of HIGH VOLTAGE LINES suspended in saltwater for THOUSANDS of turbines off the west coast. The west coast is the ABSOLUTE MOST DIVERSE coast line in the WORLD in aquatic species. Think of the impacts to the commercial fishing, crabbing, recreational fishing, sailing, scuba diving, whale watching, motor boating, etc. There will be a 20 MILE EXCLUSION ZONE AROUND THE TURBINES, which means no fishing, no boating, no scuba diving, etc., for 20 MILES AROUND THE TURBINES.

How will the turbines be held in place in the water? There will be another network of heavy synthetic lines, three to every platform with 250 platforms at every location, and, so far, a proposed NINE locations up and down the coast, with MORE being proposed. Currently, the number of platforms is 2,250 platforms, with three lines suspended in the water column at every platform, which is 6,750 lines through the water column. There is a plethora of evidence that demonstrates that the aquatic life cannot "see" static lines in the water, which means there is no active movement. There are thousands of deadly entanglements every single year with the whales, whale sharks, sharks, turtles, fish, seals, etc., dying from the static fishing lines that are left floating in the water. The static lines that will be holding in place will be in the water column, not actively moving. How will the aquatic life be able to "see" the network of cables that will be throughout the depths of the ocean? How is BOEM going to prevent deadly head-on collisions with the massive lines?

In 2014, in the Nature Journal, "Anthropogenic electromagnetic noise disrupts magnetic compass orientation in a migratory bird," Vol 509, pg. 353, proved that migratory birds are unable to use their magnetic compass in the presence of urban electromagnetic noise. The massive wind turbines that are being proposed for the west coast are nothing but gigantic emitters of electromagnetic noise. Why is there absolutely no discussion of the EMF on the migratory bird populations? If there is data that proves that the turbines will not have an impact on the migratory birds, where is the data? The migratory birds use the Earth's magnetic field to navigate the angle of inclination. What the offshore wind industry is also failing to disclose is that ALL of the capital costs are being paid for by TAX DOLLARS. So far the estimate is \$10 BILLION in TAX

DOLLARS that will be used to build an EXCLUSIVE ELECTRICITY SOURCE FOR NEW DEVELOPMENT, which in the State of California is translated into DEVELOPMENT FOR THE WEALTHY. The offshore wind farms on Humboldt Bay will be sending the electricity to A NEW DEVELOPMENT OF 1.5 MILLION HOUSES IN SAN FRANCISCO BAY AREA. This is a \$10 BILLION DOLLAR GIVEAWAY TO THE RICH JUST FOR THIS ONE LOCATION.

The National Marine Fisheries Service have made the determination that the killing of 20 CRITICALLY ENDANGERED RIGHT WHALES on the east coast due to the increase in ocean traffic in their migrating areas is ACCEPTABLE. WHAT DOES THIS DETERMINATION MEAN FOR THE WHALES ON THE WEST COAST WHEN OFFSHORE TURBINE CONSTRUCTION BEGINS?

For any project that is funded by federal and State dollars, both NEPA (Federal) and CEQA (California State) laws REQUIRE the EVALUATION OF ALTERNATIVE SOLUTIONS TO THE CHOSEN ALTERNATIVE. In this case, there should be at least three alternative electricity generation solutions that have been evaluated and their performance is to be ranked against the chosen offshore wind solution. The ranking process is supposed to demonstrate that the chosen solution is the absolute best solution that has been evaluated. WHERE IS THE REPORT THAT SHOWS THE EVALUATION OF THE ALTERNATIVE SOLUTIONS AND THE RANKING METHOD? I HAVE REPEATEDLY ASKED FOR THE REPORT OVER THE PAST YEAR, AND I HAVE YET TO SEE THE REPORT.

For \$10 BILLION, WHY ARE OUR TAX DOLLARS NOT BEING USED FOR THE NEW TECHNOLOGICAL DEVELOPMENT, SUCH AS VERTICAL AXIS TURBINES, INLINE-PIPE TURBINES, SOLAR PANELS THAT FOLD OUT LIKE A FLOWER, GEOTHERMAL SYSTEMS, MINI-HYDROPOWER PLANTS WHERE FEASIBLE, DISTRIBUTED ROOF TOP ELECTRICITY GENERATION? \$10 BILLION CAN HELP TO DEVELOP THE MANUFACTURING PLANTS THROUGHOUT THE UNITED STATES, ENSURE THE ELECTRICITY IS LOCALLY LOCATED INSTEAD OF COMING FROM HUNDREDS OF MILES AWAY, WHICH MEANS RESILIENCY AND SUSTAINABILITY, AND ALMOST ZERO LOSSES OF ELECTRICITY BECAUSE THE ELECTRICITY IS NOT COMING FROM HUNDREDS OF MILES AWAY.

IN ADDITION TO THE DAMAGES TO THE OCEAN, HOW MANY MORE MINES WILL BE DEVELOPED IN THE STATE OF CALIFORNIA? CALIFORNIA ALREADY HAS OVER 100,000 ABANDONED MINES, MANY OF THEM ARE OPEN PIT AND TUNNEL THAT ARE ACTIVELY DRAINING THE MOUNTAINS. THE THOUSANDS OF MILES OF HIGH VOLTAGE LINES WILL NEED COPPER. THE TOWERS TO RUN THE LINES WILL NEED STEEL. THERE WILL ALSO BE ALUMINUM. WHAT HAPPENS TO THE MINES WHEN THE MINERS ARE FINISHED TAKING? THEY DECLARE BANKRUPTCY AND WALK AWAY FROM THE MESS BECAUSE THAT IS ACCEPTABLE IN THE UNITED STATES.

The number one advertisement that I see regarding the offshore wind turbine business is the advertisement "Do you want to make a lot of money? Does your company manufacture turbine parts? Are you a supplier for harbor districts?" This is a money grab at the expense of the tax payer. The companies are traded on the stock market. The offshore wind projects are not for the benefit of the general public.

*Additional submitted attachment is included below.*

Offshore Wind Comment,  
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