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Comment Received From: Ted Key
Submitted On: 10/6/2025
Docket Number: 25-BUSMTG-01

Please Table 9D

Please see attached

Additional submitted attachment is included below.

To: California Energy Commission

From: Ted Key

Re: Item 9D

Echoing the Morro Bay Commercial Fisherman's submission, I am writing to request that you table item 9d, which funds a \$3 million grant for the Port San Luis Harbor District feasibility study of an offshore wind energy operations and maintenance port. The County of San Luis Obispo has already committed \$1 million for a feasibility study in this location, and that study is still ongoing. The Mott MacDonald consultants did not complete the study in the agreed-upon timeframe and recently received an extension until summer 2026. As of today, no results from the study have been provided. Furthermore, Clean Energy Terminals, a private port development company, also signed an agreement months ago with Port San Luis to jointly conduct feasibility studies for an O&M port.

As we already have two studies lined up for this project, it seems illogical and wasteful to fund another one before knowing those results. What if one or both of those studies find that such a port is NOT feasible? Let's wait for the results of the existing studies before moving forward with a third. Thank you for doing the right thing for California tax-payers and tabling this grant today.

I would also like to share the following statement with my ongoing concerns, and those of the majority of the citizens in Cambria, if not the entire Central Coast

The Floating Offshore Wind (OSW) proposal is to build a system that - like Nantucket, puts us in danger of months long beach closures and restricted ocean use when failed blades break up, sending sharp, toxic plastic shards on land. The people of Nantucket were promised there would be no impact to their environment or economy. Those lies have resulted in an initial lawsuit settlement of \$10m. Whether they will ever clear all that plastic off their shores is questionable. Can we afford the same with Moonstone Beach or any other beach on the Central Coast?

I have been worried about climate concerns for over 50 years. It is the existential matter of our time and the International Panel on Climate Change (IPCC) reports we're at least 30 years behind where we should be, no thanks to the big oil companies who fought tooth and nail to maintain lead additives. Most people have forgotten that it took one man to fight it all the way to the SCOTUS and win. Now these same companies are telling us they have the solution, if only we provide them yet billions more in subsidies! We need solutions that work today, not years from now.

Storage:

California over-generates passive power almost daily. Since we don't have proper nor sufficient storage, we sell the power to adjacent states. When the price drops below zero, we simply turn it off. Therefore, the first major issue is storage. The Morro Bay BESS was wisely voted down by the citizens before we had yet another Moss Landing catastrophe. These lithium-based grid scale batteries are subject to fire, are costly, and do not operate anywhere near the efficiency, safety and price point of sand, brick, flow or several other better non-incendiary devices. Non-volatile sodium ion technology is being produced by CATL, which is the largest battery manufacturer in the world. Another fascinating idea, already piloted, utilizes the 40,000 abandoned oil wells in CA creating thermal batteries. This would be a huge win for Long Beach and could provide transitional employment for laid off oil workers.

Turbine Blades:

Turning to blade failure, the Danish company that builds them went 185m DKK in the red last year from manufacturing defects and warranty issues. Hardly confidence building. The proposed blades in our case are nearly three times the size of the ones that caused the months long shutdown on the Nantucket shores. Can you imagine the costs and damage of shutting down Moonstone Beach or the elephant seal rookery? We will pay for that loss and damage. When I spoke directly to Congressman Panetta, he hadn't even heard of the Nantucket debacle, so we need to educate our representatives.

The blades consist of plastics and other environmentally non-recyclable toxic materials. They require expensive and dangerous ongoing surface repair. The transport from Europe would only add to the overall CO2 footprint. Regarding maintenance, there will be large SOV craft out there 24/7/365. The first wave of three hundred, 1000 ft high towers is slated to be followed by 500 more. Maintenance will cost exponentially more than American-made panels covering the entire CA aqueduct.

Solar Panels:

Using American-made panels, already improved from the First Solar units used in the Carrizo Project, create American labor in Ohio at their new plant/recycling center. Why not just keep our billions of tax dollars/subsidies at home rather than sending it to a foreign oil company, BP parent of Equinor Petroleum?

In public comment, I've proposed this aqueduct solar project a couple times to the Coastal Commission, receiving nodding heads of approval. What I did not know, is that the Sacramento Municipal Utilities District has already begun the project. This sort of project-building creates power as it goes, rather than waiting five to seven years for OSW. Again, reading the IPCC report illustrates how far behind we are.

CO2 Emissions:

I'd like to turn to CO2 emissions which are created by both OSW and solar. For solar, there's the mining and delivery of mostly silicon and aluminum. It should be noted that OxfordPV now is selling higher efficiency perovskite panels easier to produce and less heat in production. This and other new developments are shortly going to exceed an unheard of 35% efficiency. Other developments include bi-sided panels, and even tuned panels that operate at night, soaking up reflected infrared light from the heat of the day. There's flexible clear PV, as design elements and structural panels for skyscrapers and rooftops that cannot handle heavy loads.

In addition to the aqueduct site, nearly infinite roofs, parking lots and AG solar opportunities exist for responsible passive power. Many are concerned about solar field locations and I remain sensitive to site selection, in particular, floating solar farms. The only thing holding us back is American panel manufacturing, which should be subsidized to build and bring back online those companies that couldn't compete with China, who is crushing everyone in solar installations worldwide.

I understand that a lab has created a self-healing PV which, in five to seven years will allow us to install 100-year lifespan panels. Ag solar and community solar also add to the party. Of course we have transportation/installation, but that's about it as maintenance is minimal. As far as recycling, there are three different companies I know of building automated equipment that allow a panel to be fed into one end and 95% of the materials recovered for reuse. This industry should be immediately encouraged.

The proposed OSW system will require the mining, smelting, forging and transportation involved with creation of heavy rolled-steel panels and massive chain. Each link of chain consists of 1500 lbs. of steel used to secure the first 300 of the 800 proposed towers and would stretch across the continental U.S. The sheet steel for the 1000 ft towers would need untold amounts of coke-fired furnaces. The hundreds of miles of specialized power cables would use special materials and metals as well.

The plastics used for the blades are toxic stuff and difficult to recycle or reuse at this point. There are huge graveyards of them in the Midwest. Additionally, in the caustic sea environment, blades continuously shed toxic microplastics which are endocrine disrupters. The first phase of 300 machines would include nine hundred 800 ft long blades creating fans the size of professional stadiums. These microplastics couldn't land in a worse spot flowing right over the critical upwelling areas. These disrupters attack DNA structure, and if we want to destroy a species, that's one good way to do it.

Fossil Fuel Dependency:

Hundreds of gallons of lubricants must be changed out twice a year; the base pod thrusters use diesel, and diesel is required to start stopped blades. The amount of diesel burned by the SOVs would be staggering. They either run 24/7/365 on site or they could be run 60 miles round trip daily. Ironically, this is a fossil fuel dependent system to get us off fossil fuel dependency. End of life and decommissioning will be as energy-hungry as erecting it was in the first place, with huge cranes and endless boat traffic. The fossil fuel companies are more than fine with all this.

Other Wind Solutions:

Wind could be actually be more intelligently captured by placing vertically-oriented turbines on top of the aqueduct supports like those built by American Harmony Systems. These turbines run at speeds the big turbines can't which, with the prevailing valley winds, could produce power for considerably longer periods of time (these massive turbines are running only about 40% of the time). Additionally, adding water wheel turbines to the flow beneath, completes a 24-hour generation system.

Great applications for wind and rooftop units are starting to catch on, some getting optimum performance in urban settings. What I'm describing creates a framework for many more distributed systems relieving the pressure on the grid, while allowing for more safe, less expensive, and flexible power delivery.

Concerns:

From offshore wind we get nothing but conjecture. That the hundreds of miles of huge subsurface chain and massive high-powered cable will have zero effect on whale migration is just difficult to imagine. The Indian Nation has taken a stand in Coos Bay and their Congressman put a hold there, as the magnetic disturbance to salmon is under intense scrutiny. The electronics of power through a wire will generate a big magnetic field to confuse their internal compasses.

The huge near-shore DC to AC converting substations use once-through cooling, dumping millions of gallons of bleached water back into the ocean daily.

The blade problem has been discussed but no one can convince me that 300 thousand-foot towers with nine hundred blades extending up to 1800 ft won't get blasted by lightening or simply burn up on their own

malfunction, as has happened often in the past. Actually, blade failures happen quite regularly. With 900 (three hundred times three) in the first phase there will be failures.

'Stuff happens,' and when you have huge moving parts, it happens 'bigly.' The lubricants for the gears are sodium hexafluoride, one of the most dangerous toxins known to man. The best mechanic I've ever known defined trouble as 'two pieces of metal rubbing each other.' Not an issue with solar panels.

An entire offshore system in Europe made by Siemens had to be towed in because the main gears were mis-manufactured. Repairs/Replacements will take several years and yet more fossil fuel use.

Then there's the bird issue especially with larger, slower species, and also bats. These blades are about the diameter of a professional football stadium and their tips are running at well over a hundred seventy miles an hour. This is one of the causes for dangerous and expensive blade repair. An entire system was removed in Germany because it was killing eagles wholesale.

Nobody knows the effect on the ocean upwelling. Mess that up and all sea life will be at tremendous risk. If that happens, we will have put all those billions into folly. Reading the joint position from the Chumash, I think they're betting on it. They made it clear if that happens, they get the 30-mile service corridor back, which in my opinion, was the bounty for the Chumash Sanctuary to proceed. Even NOAA is disappointed in the gap.

We are endangering our tourist economy and the lives of the animals many of us rescue with The Marine Mammal Center. Why are we risking it all for so many unknown threats when we already have tried and true power generation solutions at hand?

There are major port industrialization concerns. In addition to the destructive CO2 footprint, the site for landing all the giant high-powered cables is the Cayucos Dog Beach. Looking at previous installed sites, surfacing of these buried cables will be an eyesore. The relinquished land deed from Standard Oil held by The California Land Conservancy specifies only recreational use. Unfortunately, our pro-big wind county and state government could choose to undermine that, which would be a major betrayal.

The industrialization of Morro Bay is out of the question as there's not enough room for the SOVs to even turn around and would be the destruction of this delicate one-of-a-kind estuary and otter sanctuary.

I don't know if you have seen the image of what an industrialized Port San Luis will look like but it's truly ugly and there's only one-road access - an entirely inadequate situation. Another proposal is to burn massive diesel dragging the turbines all the way up the coast from Southern California.

Alternative technologies:

I haven't addressed nuclear and will only do so briefly. No one was any more anti-nuke than I for decades. What few of us knew was, since the Manhattan Project, a thorium reactor still exists in Oakridge, TN. The man who invented both the U235 core reactor and molten salt thorium reactor tried to encourage thorium for commercial use to no avail and 80 years later, we're waking up. Thorium is much cheaper than enriching U235, creates far less waste with only a 300-year half-life, is melt-down proof, does not need water cooling (liquid fluorine is the moderator), can reuse the old fuel rods we're storing at Diablo (also reducing that half-life from 10,000 to 300 years), and can be a breeder reactor while producing rare isotopes for uses like cancer treatment.

Unfortunately for us, the Chinese now have their first fuel on-the-fly unit operating in the Gobe Desert. We have the Terra Power unit under construction in Kemmerer WY, replacing their coal plant. Financed entirely by Bill Gates, their Natrium fast reactor uses a molten salt battery to store continuous generation on site. It's an innovative system that should power the entire state.

Other companies of note are Thorcon building floating reactors on ships in Indonesia for distribution to emerging countries (replacing fossil fuels), Flibe and Copenhagen Energies, and even GE, who has a small transportable 4th gen unit on the market now, I believe. That would be great to power AI, for example. The French have done amazing things with nuclear and are now building their first thorium reactor. We need to get educated on their program.

So many other great solutions exist, along with dozens of other breathtaking disruptive technologies I'm following closely. Why would we sign on with these clunky, expensive, maintenance-misguided nightmares?

Conclusions:

We have all the information we need to reject this proposed project right now. We don't need the well-dressed lobbyists sitting around gaslighting us on this fake green nonsense. I lived in Silicon Valley for 30 years and am friends with some of the top engineers of our time, and not one of them thinks this is anything but ill-advised.

As we know it's all about the money - it's always all about the money. And the question is: Are we looking to create cheap eco-friendly power or create yet more wealth for the big oil companies? Floating offshore wind is some of the most expensive power per KW. The English, for example, pay on average 30% more for power than their counterparts in mainland Europe.

This information creates a clear argument to stand against this OSW project and pursue cleaner, less expensive, non-invasive, proven alternative sources of power for our beloved Central Coast.

Ted Key

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