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Per Laurie ten Hope's instruction. Letter on new technology for on demand base load clean energy to address duck curve

Commission Staff,

Upon attending the MIT Club of Northern California meeting on March 9th, "Funding Your Clean Energy Company in the Trump Era", we learned of the challenges facing clean energy research in addition to the need for 'on demand' clean energy in order to address the duck curve. Per my discussion with Deputy Director, Laurie ten Hope, I am submitting this comment to inform you of an alternate method and technology of producing predictable and reliable clean energy from tidal fluctuation. The research I have conducted verifies a powerful and predictable energy source which is worthy of consideration for the CEC's EPIC 2018-2020 Triennial Investment Plan.

As an applicant of your current round of CalSEED funding, I am submitting my research data as information only and not to impact the judging process. Rather than unethically presenting the technology from my CalSEED application, I am addressing its targeted energy source as it is consistent and capable of supplying 'on demand' clean energy.

Discussed in the MIT meeting was the fact that wind and solar are unable to meet the demand curve needs, and due to intermittency, they are unable to create base load energy for accurate cost projections.

Witnessed for decades at a local tidal lagoon is a massive predicable, naturally occurring energy source. This particular lagoon is connected to the SF Bay, via two (2) 10'x10'x20' tunnels, approximately, 150' long, which produce a six (6) mph, ten (10) foot wide water flow with a depth ranging from eight (8) to ten (10) feet depending on tidal depth. As tidal changes occur in different locations, at different times, several lagoons along a tidal span could provide constant clean energy to the grid, lowering electric cost for all. In researching facilities to test my technology, it seems there are not many facilities dedicated to testing methods of extracting energy from this readily available Eco-friendly energy source. The lagoon is also well known as a congregating area for all types of marine life, and more of these would enhance the local wildlife.

I am currently working with two (2) local UC schools to bring this new technology to scientific community and have received patent approval from the USPTO. AS mentioned, we verified the flow rates at the lagoon and have recently verified torque and rpm data relative to the applicable flow rates. The data gathered indicates a reliable base load energy source, which can be calculated to show favorable cost/kilowatt which could support investment during an uncertain federal funding landscape.

In addition to producing low cost electricity, we envision that my technology will also be capable of desalination, and clean water transportation to water deprived agriculture and statewide disadvantaged communities.

We respectfully suggest that this topic be discussed and considered for R&D in the CEC's EPIC 2018-2020 Triennial Investment Plan.

Thank you.