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**Public comment 23-ERDD-07 - Haybarn Canyon MN**

*Additional submitted attachment is included below.*

**From:** [peter dewilder](#)  
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Please find below my comments.  
Best,  
Peter Dewilder

1. Redflow, a zinc battery producer like EOS Energy (“EOS”), went bankrupt in October. This should serve as a warning for California and the Military. EOS has a very weak balance sheet. The company reported \$1.3 billion of accumulated losses as at 30 September 2024. Its cash balance was \$30.6 million. Total debt now stands at approximately \$190m. EOS reported cash outflow of \$111 million in the first nine months of this year alone.

Some investors point to the debt financing provided by private equity firm Cerberus as EOS’ saving grace. However, EOS was forced to take the deal to avert a liquidity crisis, resulting in usurious debt terms that include an interest rate of 15% and a free up to 33% equity gift. More than a year has passed since EOS announced the \$399 million conditional commitment from the Department of Energy. This clearly indicates that EOS is struggling to meet the loan’s conditions precedent. Even if the loan is eventually disbursed, the amount is likely to be much smaller and given in milestones, rather than at one go. In any case, this would mean even more debt for an already very weak balance sheet.

2. EOS has already received a tremendous amount of help from taxpayers:
  - \$3 million EPIC grant in 2019
  - In 2022, EOS was one of the beneficiaries of a \$31 million long duration energy storage project that included zinc-hybrid batteries.
  - In 2023, the company received a \$399 million conditional guarantee from the DOE (although the final amount is expected to be scaled down and paid in milestones)
  - It is now proposed to fund the Pendleton project with a CEC grant.

- Etc

EOS is not a startup or a university project; it is a 15-year-old Nasdaq-listed company with wide access to capital markets. After receiving considerable public support without seeing its business take off, one must question how much longer this can continue. How long will it take to recognize that this company is not competitive? Are there not other companies or projects in California that deserve financing? If the CEC aims to support future technologies, it should consider investing in real innovation, especially technologies that allow for durations longer than 24 hours.

3. The main reasons why EOS batteries have not been commercially successful in 15 years are their lower round-trip efficiency (RTE) vs lithium-ion batteries and the fact that they leak energy at a high rate. Lithium-ion has a higher RTE and is now used for long duration energy storage (LDES). Recent commercial announcements show that it was a myth that lithium-ion cannot be used for LDES. Lithium-ion is also much cheaper than Zinc batteries. There are longer duration technologies that would be worth funding instead of zinc, that cannot compete.
4. There is no information on the applicant, IEP Camp Pendleton Energy Storage 1, LLC, in the proposal. How does IEP finance itself? In 2022, EOS pre-financed its client IEP. Is this still the case now? The applicant is incorporated in Pennsylvania, and its registered address (97 Pink House Rd Exd Sewickley, PA 15143) is also the residential address of Peter Dailey, the CEO of IEP. This is unusual; one would expect the applicant to have a company address.
5. What is the exact position of Micheal Firenze in this proposal? The presentation states that the applicant IEP Camp Pendleton Energy Storage 1, LLC is “represented” by Michael Firenze. Meanwhile we know that in the past, Firenze served as the “Principal Investigator for the United States Marine Corps and California Energy Commission to identify advanced microgrid technologies for demonstration in what is known as the Camp Pendleton FractalGrid Demonstration Project and Fractal Grid Initiative.”