

DOCKETED

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Comments LDS-24-004 and LDS-24-003

Additional submitted attachment is included below.

Projects:

LDS-24-004

LDS-24-003

No information available on the grant applicant, IEP Camp Pendleton Energy Storage 1, LLC (“IEP”), and questions regarding its relationship with EOS Energy

Given the substantial amount of the proposed grant (\$42 million), one would expect the CEC to provide information about the applicant, IEP. Batteries are designed to last for 20 years, so it is essential to ascertain whether the applicant has adequate financial stability.

There is ZERO information provided by the CEC regarding the IEP group in the proposal, in particular its financial statements.

What we know is that IEP was so financially weak in 2022 that it required financing from its battery supplier, EOS Energy (“EOS”) to purchase EOS’s batteries – source: EOS’ transcript Q4 2021 Earnings Call.

EOS happens to be the battery manufacturer in the Haybarn Energy Reliability Center project (LDS-24-004). This raises the question: Is the relationship between IEP and EOS on arm’s length basis or is IEP merely acting as a proxy for EOS in this grant application?

IEP is incorporated in Pennsylvania, and its registered address (97 Pink House Rd Exd Sewickley, PA 15143) is the residential address of Peter Dailey, the CEO of the IEP group. This is unusual; one would expect the applicant to have a company address.

EOS’s precarious financials

The same concern applies to EOS: Will this company be around long enough to maintain its batteries?

EOS is a zinc battery producer, and this sector has faced multiple bankruptcies, which should raise alarms for the CEC and the military. For instance, Redflow went bankrupt in October.

Financially, EOS has always been a shipwreck. The company reported \$1.3 billion of accumulated losses as at 30 September 2024. EOS recorded cash outflow of \$111 million in the first nine months of this year alone. EOS has a very weak balance sheet. Total debt now stands at approximately \$190 million. EOS has access to up to \$316 million debt from private equity firm Cerberus but the company had to accept usurious terms to avert a liquidity crisis (e.g.

interest rate of 15%). Cerberus has been accused of predatory practices in the past, as evidenced by the bankruptcy of the hospital chain Steward Health Care.

An additional loan guarantee of up to \$303.5 million has just been extended by the DOE this week. It took more than a year of struggles to close this loan guarantee. EOS will end up with an exceptionally high level of debt for a company that has failed to demonstrate its ability to generate positive cash flow over the last 15 years.

EOS has also faced accusations of financial representations. For example, 45% of its claimed backlog was booked with a company called Bridgeline, whose group assets have been seized by a creditor. Needless to say, EOS has never sold any batteries to Bridgeline.

How much taxpayer money should be given to the same company, EOS?

EOS has received very large public financial support:

- \$3 million EPIC grant in 2019
- In 2022, EOS was one of the beneficiaries of a CEC \$31 million energy storage grant.
- As mentioned, EOS has just received an up to \$303.5 million loan guarantee from the DOE
- In the proposed grant to IEP, EOS's batteries account for \$12 million of total costs.
- An additional \$8 million direct grant to EOS is proposed in the same meeting for project LDS-24-003
- Other DOE grants, etc.

Both California and the DOE have been extremely generous with EOS. The company does not have any operational presence in California. EOS is neither a startup nor a university project; it is a 15-year-old Nasdaq-listed company that has struggled for years. If EOS were a promising company, capital markets would be eager to finance it; clearly, this is not the case.

I am concerned that the CEC, which has extensively supported EOS, is now throwing good money after bad. After receiving considerable public support without seeing its business take off, one must question how much taxpayer money can be wasted. How long will it take to recognize that the product of this company has not been competitive? If the CEC aims to support Long Duration Energy Storage ("LDES") technologies, it should consider investing in really innovative solutions, for example durations exceeding 24 hours.

EOS has consistently struggled to compete against lithium-ion batteries

One reason EOS batteries have experienced commercial failure over the past 15 years is their lower round-trip efficiency (RTE) compared to the dominant lithium-ion technology. Batteries also leak energy. The market recognizes that lithium-ion has a higher RTE, despite EOS' claims to the contrary. Lithium-ion batteries are also much cheaper than zinc batteries.

It was previously assumed that lithium-ion was not the optimal solution for LDES. However, LFP chemistry has demonstrated that lithium-ion is also well-suited for LDES applications. The CEC can easily assess the performance of these lithium-ion LDES projects by contacting the companies that have implemented them.

If the award process were competitive, there would be no way for zinc batteries to win against lithium-ion options. I find it difficult to understand why the CEC continues to fund flawed technology with taxpayer money and does not make the award process competitive.

Role of Michael Firenze in this proposal

What is the position of Michael Firenze in this proposal? The Initial Study states that the applicant IEP 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.”