

DOCKETED

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Sustainable Energy Inc Comment on 20-SPPE-01

Additional submitted attachment is included below.

I am Mark Roest, living in San Mateo, California. I am the Director of Marketing and International Development for Sustainable Energy Inc., a startup developing advanced non-lithium battery technology. We expect to be able to do what I stated below, and if for some reason we cannot, Tesla is now expected to drive their cost of lithium batteries below \$100/kWh within two years, so there are two potential sources for that time frame

Re: 2. Great Oaks South Backup Generating Facility (20-SPPE-01):

The CEC should not grant the requested exemption to Great Oaks to install 99 MW of diesel backup generation for the data center.

Within 2 years a 100MWh battery system could be installed for just \$10,000,000, according to our projections. It is important to consider the large stack of public benefits of requiring Great Oaks to install battery backup instead of diesel. Avoiding diesel emissions when fires may be causing outages, and blanketing the region with smoke as they did recently, is just part of it.

From a cost-to-install perspective, putting in and maintaining diesel generators that might only be used once a year is foolhardy.

See <https://www.ebay.com/i/251556496091> for an offer of 2.5 (not 3.5) MW diesel generators; they require a trailer each, and cost \$750,000. **100 MW / 2.5 MW = 40.** $40 \times \$750,000 = \mathbf{\$30,000,000!}$ 3.5 MW price per MW will be comparable to 2.5 MW price per MW.

A battery backup system will be available for \$10,000,000 per hundred MWh, or **\$30,000,000 for 300 MWh**, within 2 years.

A battery can be used year-round to stabilize the grid, and to support the transition from fossil fuel to full battery-electric vehicles with V2G, which could very easily provide the buffer the data center needs. It could even pay for itself through ancillary services, and load-shifting to least-cost times for purchasing electricity. The Tesla battery in Australia proves it. Please choose 300 MWh of pristine battery capacity, with virtually no operations cost compared to the diesel, and no pollution. You can then pair that with demand response, including V2G, which in aggregate can keep the data center going until grid service is restored.

Don't allow a company to poison people and destroy the climate because it has obsolete planners making decisions!