

**DOCKETED**

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## **CEERT Comments on DER Research**

*Additional submitted attachment is included below.*



June 12, 2020

California Energy Commission  
Docket No. 19-SB-100

### **Support for long duration energy storage research in the Distributed Energy Resources Research Roadmap**

I write in support of placing high priority and near-term emphasis on research related to long-duration energy storage. This research is needed now to inform energy and climate modeling at state agencies and to support new technologies which are primed for rapid growth an important tool to efficiently and cost effectively meet the state's climate and clean energy goals.

Per SB 100, the CEC, CPUC and CARB must model alternate scenarios where renewable power provides no less than 60 percent of retail electricity sales by 2030 and zero carbon power provides at least 100 percent of retail sales by 2045. Initial planning by the agencies, as presented in SB 100 workshops, suggests a continued reliance on natural gas plants, even out in 2045.

Continued reliance on old, polluting fossil fueled plants indefinitely into the future is unnecessary and is unlikely to be the lowest cost option to balance our increasingly renewable electricity grid. Indeed, a number of promising alternate and long duration energy storage technologies are emerging as viable candidates to store renewable power for days, weeks, or even months at a time, and to provide firm and dispatchable renewable power, in lieu of legacy natural gas plants. A growing number of studies demonstrate there are better approaches to achieving 100 percent clean energy, and already, leaders like the Los Angeles Department of Water and Power are committing to long duration storage options like green electrolytic hydrogen as a necessary strategy to achieve the goal of 100 percent clean power at low cost. Many long duration energy storage technologies can also support distributed power solutions, to provide resiliency and local clean energy options in-line with the state's climate, energy and air quality goals.

Prevailing models used by the state do not include the range of long duration storage options that will be needed to achieve the goals of SB 100 in a manner that minimizes costs and emissions. The CEC should support necessary research and development to accurately characterize the cost and performance of a range of emerging long duration energy storage technologies, update the state's models accordingly, and to demonstrate a range of these technologies in both distributed and larger scale applications.

Long duration energy storage is one of a few key missing pieces of the state's clean power portfolio, along with offshore wind and a broader diversity of renewable power supplies, and it should be one of the highest, near-term priorities for funding under the EPIC program. We hope the CEC will also prioritize support for demonstrations and pilot projects for utilizing long duration energy storage on a distributed scale to help communities better integrate local renewable energy supplies and keep the lights on during multiday outages from wildfires or public safety power shutoffs.

Sincerely,

A handwritten signature in black ink, appearing to read "V. John White". The signature is written in a cursive, somewhat stylized font.

V. John White  
Executive Director

Center for Energy Efficiency and Renewable Technologies

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