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LDESAC Comments - SB 100 Joint Agency Report

Additional submitted attachment is included below.

LONG DURATION ENERGY STORAGE
ASSOCIATION OF CALIFORNIA

TO: California Energy Commission
FROM: The Long Duration Energy Storage Association of California
DATE: September 15, 2020
SUBJECT: **SB 100 Joint Agency Report**

The Long Duration Energy Storage Association of California (LDESAC) appreciates the opportunity to provide comments in response to the California Energy Commission's (CEC) Senate Bill (SB) 100 Joint Agency Report.

LDESAC represents a diverse mix of long duration energy storage technologies and projects. Our membership includes 7Skyline, Blattner Energy, Cat Creek Energy, Cupertino Electric, GE Renewables North America, GreenGen Storage, Highview Power, H2B2 USA, McMillen Jacobs Associates, Morse Associates Inc., NantEnergy, NextEra Energy Resources, NEXTracker, Renewell Energy, Rye Development, Stantec and Zinc8 Energy Solutions. We work to advance the development of long duration energy storage technologies to ensure reliability of the electric grid, while providing health and economic benefits to all Californians.

As California works to integrate even more intermittent renewable energy into the grid to reduce our reliance on fossil fuels and meet our SB 100 climate goals, we need to build more long duration energy storage to ensure we have enough in-state, clean and reliable energy to keep the lights on. California currently remains heavily reliant on natural gas generation and imported power from neighboring states and this patchwork planning with the electric system failed us in August as rolling blackouts hit local communities.

Integrating long duration energy storage technologies like pumped hydropower onto the grid strongly aligns with the goals of the Newsom Administration to accelerate the fight against climate change while maintaining reliability for all Californians. Recent modeling from the California Public Utilities Commission's (CPUC) Integrated Resource Planning (IRP) process identified the need for over 2,200 megawatts (MW) of long duration energy storage to meet the state's greenhouse gas reduction targets.

The state currently has 4,000 MW of long duration energy storage, mostly provided by eight existing pumped hydro storage projects. In fact, Los Angeles was able to avoid the recent blackouts by relying on the Castaic Pumped Storage Project in Southern California. But we still need grid-scale storage to protect the rest of California.

Several new long duration storage projects have been proposed to help fill the need. One particular shovel-ready project, the Eagle Mountain Pumped Storage Project in the Inland Empire, could have stored and dispatched enough energy to head off the state's rolling

blackouts. The project site repurposes land from an abandoned iron mine into critical storage infrastructure that will provide enough clean electricity to power up to one million homes. The project represents 1,300 MW of emission free capacity and 18 hours or 23,400 MWh of energy.

There are three other pumped hydro projects, including Cat Creek Energy and Water Storage, Swan Lake Energy Storage and Mokelumne Water Battery Project, which represent over 3000 MW.

Our state energy agencies – the CEC, the CPUC and the California Independent System Operator (ISO) – should operate with a renewed prioritization of long duration energy storage technologies. As climate-driven wildfires continue to ravage the state, we must invest in innovative technologies like pumped hydro, molten salt, compressed air energy storage and more. Long duration storage complements short duration storage, like batteries, by dispatching large amounts of renewable energy back to the grid for at least eight hours at a time; in some cases, it may include multi-day or even seasonal solutions.

Long duration storage technologies can work together to ensure the flexible and efficient use of least-cost energy resources like wind and solar power while providing many interconnected and ancillary services that are essential to facilitating the shift to renewables. This includes balancing generation with demand, improving transmission efficiency, providing electric grid stability and shifting power supply over long periods and allowing carbon-free generation of electricity through the night. Energy storage also helps increase grid security by enabling the integration of new energy resources, serving as a replacement for aging infrastructure and providing reliable backup power during outages. The models can do a better job including the value add of long duration energy storage.

There is no time to delay. Governor Newsom has issued a call for the state to fast track efforts to meet our low carbon goals, and long duration energy storage is a core part of the solution. We urge the CEC to include long duration energy storage in its SB 100 planning and policies, in coordination with the CPUC and the ISO, to ensure reliability as we work to decarbonize the grid and create a cleaner, healthier future for all Californians.

We appreciate your consideration of our comments and would be pleased to discuss further if you have questions. More information can be fund on our website at www.storeenergyca.org.

Sincerely,

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