

**DOCKETED**

<b>Docket Number:</b>	21-ESR-01
<b>Project Title:</b>	Energy System Reliability
<b>TN #:</b>	248658
<b>Document Title:</b>	SB Energy Comments on Clean Energy Reliability Investment Plan
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	SB Energy
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	2/2/2023 4:16:26 PM
<b>Docketed Date:</b>	2/2/2023

*Comment Received From: SB Energy  
Submitted On: 2/2/2023  
Docket Number: 21-ESR-01*

**SB Energy Comments on Clean Energy Reliability Investment Plan**

*Additional submitted attachment is included below.*

February 2, 2023

David Erne  
California Energy Commission (CEC)  
715 P Street  
Sacramento, CA 95814

**Re: CEC Docket 21-ESR-01 – SB Energy Comments on Clean Energy Reliability Investment Plan**

Dear Mr. Erne:

Thank you for the opportunity to comment on the January 20 Lead Commissioner Workshop on the Diablo Canyon Extension and Clean Energy Reliability Investment Plan. California’s multi-billion-dollar investments in clean energy and reliability offer significant opportunities – above and beyond ongoing energy planning and procurement activities at the energy agencies – to accelerate clean energy development and bolster grid reliability.

The state can leverage tools like the Clean Energy Reliability Investment Plan to accelerate an estimated 10 – 15 gigawatts (“GW”) of reliability-enhancing clean energy projects into operations. With support, these projects, which are currently held up in the interconnection queue due to constrained deliverability, would be able come online and generate electricity years ahead of plan. Specifically, by providing funding to temporarily replace foregone revenue from resource adequacy contracts while projects await deliverability, California could enable developers to bring these clean energy projects online sooner.

We believe these incentives could be an important complement to other efforts to streamline interconnection, permitting, and deliverability. Such other efforts include financial and technical assistance and regulatory guidelines to speed network upgrades and support for long-duration energy storage. Altogether, these efforts would greatly accelerate project deployment and thereby advance California’s clean energy and climate change goals.

**About SB Energy**

SB Energy is a fully integrated renewable platform focused on utility-scale solar, storage, and high-value renewable energy projects with a large California portfolio and pipeline.

SB Energy has an operating portfolio of 1.7 GW of solar projects and pipeline of 8 GW solar and 10 GWh storage across the U.S. In California, we operate more than 650 MW of solar projects, and our California pipeline includes nearly 2 GW of solar and storage projects.

## **Opportunity to Accelerate Tens of Thousands of MW of Clean Energy waiting in Interconnection Queue**

One of the main barriers to timely deploying new clean energy projects is “deliverability,” which is CAISO’s assessment of a project’s ability to deliver energy during different system conditions. While we recognize the importance of ensuring grid reliability at all times, CAISO’s deliverability methodology plans for the most constrained grid conditions, including extremely low probability events, which results in an underallocation of deliverability for virtually all typical grid conditions (discussed in the following section). This means that many projects, particularly battery storage projects, that would likely enhance grid reliability are viewed by CAISO as not being able to do so. Without the support of a deliverability allocation from CAISO, these projects miss out on major revenue streams, challenging the projects’ financial viability. This process presents a major bottleneck for accelerating clean energy development in California.

To obtain financing, a clean energy project – and particularly a battery storage project – must be able to sell resource adequacy to load-serving entities for compliance with CPUC requirements, in addition to energy on the market. However, to qualify for resource adequacy, a project must first obtain deliverability under CAISO’s assessment. Deliverability is increasingly unavailable due to CAISO’s methodology and the slow rate of expansion of the transmission system.

Today, there are gigawatts’ worth of hybrid solar plus storage and stand-alone storage projects in the interconnection queue, waiting for a deliverability allocation. Without this allocation, these projects are unable to come online as early as technically possible and thus unable to provide clean energy and reliability.

Our analysis shows that there are currently approximately 56 GW of energy storage and hybrid projects waiting in the interconnection queue for deliverability. We estimate that 10 – 15 GW of these projects are mature enough that they could come online by summer 2026 if the deliverability methodology were to be changed or if they were able to otherwise replace resource adequacy revenues. The additional 41 – 46 GW of projects could likely come online more quickly if both deliverability methodology and network upgrade timing issues were resolved.

California energy agencies could bring 10 – 15 GW of projects online by 2026 by providing funding to offset the temporary unavailability of deliverability and the associated resource adequacy revenues. SB Energy alone has 700 MW of projects that could come online by summer 2025, plus an additional 360 MW by summer 2026. This would represent an acceleration of as much as two years ahead of currently planned schedules, if deliverability and resource adequacy were addressed.

## **Unleashing California’s Clean Energy Pipeline to Bolster Near-Term Reliability and Accelerate the Clean Energy Transition**

The State of California can support additional deployment of clean energy projects – especially energy storage projects – by providing funding to offset the loss resource adequacy revenues.

Recent California legislation has approved funding sources for clean reliability, including funds from the Clean Energy Reliability Investment Plan, the Strategic Reliability Reserve, and other funding sources. These funds could accelerate the development of renewable energy waiting interconnection queues by providing upfront grants to projects or short-term reliability contracts that provide a bridge to deliverability qualification and resource adequacy contracts.

As a condition for providing this funding upfront or in a bridge reliability contract, CEC and other California energy agencies could design a separate, more calibrated test to determine a project’s ability to deliver energy during constrained system conditions. The test could utilize the framework of CAISO’s deliverability methodology but make targeted changes to reduce conservatism, increase the overall amount of deliverability, and enable the construction of more reliability-providing generating facilities. These changes from a CAISO deliverability assessment to a CEC reliability test could include:

- Removing the SSN scenario and relying on the HSN scenario only;
- Utilizing N-1 transmission conditions instead of N-2 transmission conditions;
- Adjusting the existing generator dispatch assumption; and,
- Removing Diablo Canyon from dispatch assumption post-2025.

## **Complementing Structural Market Reforms to Achieve California’s Clean Energy Goals**

In addition to accelerating the deployment of clean reliability resources through the development of a new funding mechanism to replace resource adequacy, the CEC can deploy its clean energy incentives and investments to complement the State’s broader efforts to transition to a reliable, clean energy future.

Another barrier to renewable energy deployment in California is the delay in network upgrades. To interconnect a renewable energy project to the grid, the transmission and distribution lines must be upgraded to accommodate the additional generating capacity. These upgrades can take a long time to complete, which can delay the deployment of renewable energy projects.

There are several potential solutions that could be implemented to encourage accelerated network upgrades to connect new renewable energy projects to California’s grid.

- Provide financial incentives: One approach could be to offer financial incentives to utilities that complete network upgrades in a timely manner. This could include rebates, grants, or other forms of funding to support deployment of the upgrades in a timely manner.

- Implement regulations or standards: Another option could be to implement regulations or standards that require utilities to meet certain timelines for completing network upgrades. This could be enforced by a regulatory agency or through the use of fines or other penalties.
- Provide technical assistance: Finally, the State could provide technical assistance to utilities to help them plan and execute network upgrades more efficiently. This could include access to specialized expertise or tools, or financial support for the development of new technologies or approaches.

Finally, the CEC should consider making grant funding available to long duration energy storage (“LDES”) projects, which can provide at least 8 hours of stored energy. LDES provides a clean energy source that can be used instead of fossil fuel power plants during times of high demand, reducing greenhouse gas emissions, providing stability to the grid, and helping California reach its clean energy goals.

Thank you again for the opportunity to comment on this workshop and CEC’s efforts to accelerate the transition to a clean, reliable electricity grid in California. SB Energy looks forward to continuing to work with CEC to advance California’s clean energy and climate change goals.

Sincerely,

Jackson Salovaara  
Vice President - Strategy & Investments  
SB Energy  
3 Lagoon Drive, Suite 280  
Redwood City, CA 94025