DOCKETED	
Docket Number:	23-IEPR-01
Project Title:	General Scope
TN #:	249346
Document Title:	SB Energy Comments of SB Energy on the Draft Scoping Order for the 2023 Integrated Energy Policy Report
Description:	N/A
Filer:	System
Organization:	SB Energy
Submitter Role:	Public
Submission Date:	3/17/2023 3:09:37 PM
Docketed Date:	3/17/2023

Comment Received From: SB Energy
Submitted On: 3/17/2023
Docket Number: 23-IEPR-01

Comments of SB Energy on the Draft Scoping Order for the 2023 Integrated Energy Policy Report

Additional submitted attachment is included below.

BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

In the matter of: Preparation of the 2023 Integrated Energy Policy Report	Docket No. 23-IEPR-01

COMMENTS OF SB ENERGY ON THE DRAFT SCOPING ORDER FOR THE 2023 INTEGRATED ENERGY POLICY REPORT

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March 17, 2023

BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

In the matter of:	Docket No. 23-IEPR-01
Preparation of the 2023 Integrated Energy Policy Report	

COMMENTS OF SB ENERGY ON THE DRAFT SCOPING ORDER FOR THE 2023 INTEGRATED ENERGY POLICY REPORT

Introduction

Thank you for the opportunity to comment on the proposed scope for the California Energy Commission's (Commission) *2023 Integrated Energy Policy Report* (2023 IEPR).

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.

We fully endorse the Commission's proposed focus of the 2023 IEPR on identifying barriers and solutions to accelerate the interconnection of renewable energy technologies, included energy storage, onto the electric grid. In addition to delays and lengthy timelines for network upgrades, we urge a particular focus on the scarcity of deliverability for new resources and the challenges that presents for resource adequacy qualification.

Problem Statement

As is understood by the Commission, the State's leadership in the clean energy transition has led to significant existing and projected intermittent renewable generation – primarily solar and wind – on the state's grid. Electrification of transportation and adjacent sectors is increasing both peak and total demand. The impacts of climate change are also increasing demand during select times. In combination, these effects put a strain on both sides of the grid and present significant near-term reliability challenges.

The buildout of the transmission grid has not kept pace with the level of renewables deployment. The California Independent System Operator (CAISO) runs the grid interconnection process for new generation resources, a process that determines both the network upgrades required for a new resource to interconnect and whether such resource receives "deliverability" allocation. Deliverability measures whether there is sufficient grid capacity for a new resource in one region to serve the entire CAISO area.

Increasingly, due to a slow transmission buildout, new generation resources face years-long network upgrade timelines and do not receive a deliverability allocation. For certain resources, specifically energy storage resources, not receiving a deliverability allocation makes it difficult for a project to move forward. These projects need deliverability to qualify for resource adequacy (RA), which they can then sell to load-serving entities under long-term contracts. These contracts are required to raise the financing needed to build the project.

As such, energy storage resources, which could play a significant role in enhancing reliability of the state's grid, are increasingly unable to come online and provide reliability. This situation reflects a misalignment in the treatment of energy storage as a grid resource. Unlike solar, wind, gas, or hydroelectric power, energy storage does not only function as a generating asset, but also as load and as a quasi-transmission asset. The central role for energy storage on a high-renewables grid is to charge from midday solar (functioning like load) and discharge this energy in the evening when the sun is down and demand is high (functioning like a generating asset). However, the current deliverability methodology assesses whether there is sufficient

transmission capacity for a new energy storage resource to discharge at midday, incremental to nearby (or co-located) solar and other generating resources. As a result, the methodology often finds the need for significant new transmission capacity for storage resources to interconnect and secure deliverability, transmission capacity which is not necessary for storage to performance its bulk solar power-shifting role. This standard either effectively prevents storage resources from coming online or leads to a costly and time-consuming overbuild of transmission.

Finally, the California Public Utilities Commission (CPUC) has implemented two mid-term reliability requirements, requiring the load-serving entities to procure approximately 15.5 gigawatts of energy by 2027, and is considering significant reforms to the Resource Adequacy Program, which will transition to a slice-of-day methodology to track load more accurately than the current month-ahead approach. However, the current deliverability methodology hinders the development of storage resources that will be indispensable for the successful implementation of both programs within the aggressive timelines established by the CPUC.

Opportunity in Energy Storage

Energy storage could play a pivotal role in both addressing near-term reliability challenges and enabling high renewable penetration levels, if deliverability constraints were addressed. There are approximately 56 GW of energy storage projects (both standalone storage and storage co-located/hybrid with renewable generation) seeking deliverability in recent interconnection queue clusters. Of these, an estimated 10 – 15 GW of projects have limited required network upgrades and come could online within two to three years if the deliverability allocation were addressed.

Additionally, there are 16 GW of installed utility-scale solar PV projects on the California grid, much of which is installed without co-located storage. Solar resource owners could retrofit energy storage to these solar projects at up to the existing solar capacity at the point of interconnection. Such energy storage would not be deliverable, given that the existing solar occupies any deliverability allocation. However, this energy storage could significantly enhance reliability by discharging to the grid in evening hours, once the sun is down. These retrofit

storage projects could likely come online quickly as the project's land and interconnection would already be in place (via the existing solar project).

Between new energy storage projects and retrofitted solar plus energy storage projects, approximately 25 – 30 GW of projects could come online on the California grid in short order. While not qualifying for deliverability, both categories would provide significant reliability to the grid by meeting net peak demand (just not the traditional afternoon peak demand). Designing a mechanism to compensate projects for their reliability-enhancing capacity attributes would enable these grid stabilizing projects to come online quickly.

Conclusion

Thank you again for the opportunity to comment on the 2023 IEPR. We appreciate the Commission's efforts to accelerate the transition to a clean, reliable electricity grid in California. SB Energy looks forward to continuing to work with the Commission, the State, and stakeholders to advance California's clean energy and climate change goals.

Respectfully submitted,

_____/s/_____

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