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SB Energy Comments on Docket #23-IEPR-04

Please see attached comments from SB Energy on the 2023 Integrated Energy Policy Report Workshop on Clean Energy Interconnection- Bulk Grid.

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-04

COMMENTS OF SB ENERGY ON THE 2023 INTEGRATED ENERGY POLICY REPORT WORKSHOP ON CLEAN ENERGY INTERCONNECTION – BULK GRID

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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-04

COMMENTS OF SB ENERGY ON THE 2023 INTEGRATED ENERGY POLICY REPORT WORKSHOP ON CLEAN ENERGY INTERCONNECTION – BULK GRID

SB Energy appreciates this opportunity to comment on *2023 Integrated Energy Policy Report Workshop on Clean Energy Interconnection – Bulk Grid* ("Workshop") hosted by the California Energy Commission ("CEC") on May 4, 2023.

I. INTRODUCTION

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 gigawatts ("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 pipeline in the state includes nearly 2 GW of solar and storage projects. We are committed to continue working with the CEC and other state agencies to remove regulatory obstacles for the interconnection of critical energy sources necessary to achieve the CEC's goal of adding 100 GW of solar and 50 GW of storage to meet our Senate Bill ("SB") 100 targets.

II. DISCUSSION

1. Interconnection is a major barrier to develop energy resources such as storage

During the Workshop, several speakers discussed existing barriers and solutions to accelerate the deployment of renewable energy technologies, included energy storage, onto the electric grid. Interconnection delays was identified as a serious roadblock to develop new solar and storage facilities. SB Energy agrees that lengthy timelines for network upgrades and a

burdensome deliverability methodology for new resources has resulted in a challenging environment to bring critical clean resources online in the tight timeframe set forth in SB 100.

The presentations from Solar Energy Industries Association ("SEIA")[1] and California Wind Energy Association ("CalWEA") representatives were particularly elucidating.[2] As these entities described, insufficient transmission capacity, delays and lack of transparency in the interconnection process, high network upgrade costs, and a deliverability methodology unsuitable for storage resources are major roadblocks for the development of clean energy resources.

The buildout of the transmission grid has not kept pace with the state's clean energy goals and the level of renewables necessary deployment to achieve those targets. Increasingly, due to a slow transmission buildout, new generation resources face years-long network upgrade timelines and, once the process is completed, costs are extremely high. For certain resources, specifically energy storage resources, full status deliverability is not attainable due to an overly conservative California Independent System Operator ("CAISO")'s methodology. Storage projects need deliverability to qualify for resource adequacy ("RA"), which can then sell to load-serving entities under long-term contracts. These contracts are required to raise the financing needed to build the project. Not receiving a deliverability allocation makes it difficult for a project to move forward.

The factors mentioned above, and specifically, the CAISO's deliverability methodology have created a difficult environment for the development of energy storage. These projects play a crucial role in enhancing reliability of the state's grid but are unable to come online and provide reliability due to the lack of deliverability. 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, as CalWEA explained, the current CAISO's deliverability methodology assesses whether there is sufficient transmission

[1] SEIA, *Tackling Bulk System Interconnection Challenges*, Rick Umoff, Sr. Director & Counsel, CA (May 3, 2023).
[2] CalWEA, *Reform of CAISO Deliverability Methodology*, Nancy Rader, Executive Director (May 4, 2023).

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 that 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.

2. Removing interconnection obstacles is necessary for grid reliability

Energy storage would play a pivotal role in both addressing near-term reliability challenges and enabling high renewable penetration levels. However, 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 to 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 photovoltaic 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 to 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.

III. CONCLUSION

Thank you again for the opportunity to comment on the Workshop. 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,

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