

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Microgrids Pursuant to Senate Bill 1339 and
Resiliency Strategies.

Rulemaking 19-09-009
(Filed Sep. 12, 2019)

**COMMENTS OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
ON UTILITY AND STAFF PROPOSALS**

I. Introduction

The California Independent System Operator Corporation (“CAISO”) hereby provides comments regarding the microgrid and resiliency proposals filed on January 21, 2020 by Southern California Edison Company (“SCE”), Pacific Gas & Electric Company (“PG&E”), San Diego Gas & Electric Company (“SDG&E”) (collectively, “IOUs”), and Commission Staff, respectively. The CAISO fully supports the Commission’s efforts to enable microgrids, enhance grid resiliency, and mitigate the impact of public safety power shutoffs (“PSPSs”). Having carefully examined each Proposal, the CAISO anticipates that its tariff, study procedures, and market processes are well-situated to facilitate the proposed mitigation plans.

II. IOU Proposals

The IOUs’ proposed solutions generally consist of new, in-front-of-the-meter generators—including storage devices—at the distribution level. Such resources are not unique and come online frequently, and the CAISO and the IOUs already have robust processes to coordinate interconnection studies.¹ Based on the generation owner’s election,

¹ See, e.g., Sections 25.2 and 40.4.6.3 of the CAISO tariff.

distribution-connected resources can participate in the CAISO markets as stand-alone generators, virtual aggregated generators,² or demand response resources.³ The CAISO tariff, study processes, and participation models can accommodate all potential generation technologies and fuel sources, including energy storage resources.

Distributed generators that intend to participate solely in retail markets interconnect under the IOUs' Rule 21 tariffs. If these generators later elect to participate in the CAISO wholesale markets, the CAISO tariff already allows them to become CAISO participating generators without re-study, so long as the interconnecting utility provides a copy of the study demonstrating the generator will not impact the CAISO controlled grid, or the impact has been mitigated.⁴

Distribution connected resources that intend to participate in the wholesale markets interconnect under the interconnecting IOU's Wholesale Distribution Access Tariff ("WDAT"). If the generator seeks to provide resource adequacy capacity, the CAISO studies its ability to deliver energy to load during peak conditions as part of its annual cluster study or annual distributed generation deliverability assessment.⁵ In any case, the CAISO's processes do not preclude the Commission from determining whether resources align with Commission or state goals. For example, it is the Commission's prerogative to determine whether resources can qualify for resource adequacy or as incremental procurement under the Integrated Resource Plan proceeding, as decided in separate Commission proceedings.

² *I.e.*, Distributed Energy Resource Aggregations. *See* Section 4.17 of the CAISO tariff.

³ Participating as demand response resources is common, but not necessarily required when the resource is located behind-the-meter.

⁴ Section 25.2 of the CAISO tariff.

⁵ *See* Section 40.4.6.3 of the CAISO tariff.

Based on the IOUs' proposals, the CAISO anticipates that its study process and participation models already can accommodate the Commission's desire to bring selected resources online expeditiously. The CAISO does not believe its processes will present any obstacle toward achieving the CPUC's goals in track 1. PG&E has already approached the CAISO to discuss how PG&E can enable its mitigation plans quickly and efficiently. As noted above, the CAISO expects to meet PG&E's request through its annual cluster study or annual distributed generation deliverability assessment.

III. Staff Proposal

The CAISO supports the recommendations described in Staff's Proposal. Charging storage devices from the grid and exporting to the grid—regardless of tariff, jurisdiction, or settlement—impact wholesale market prices and the transmission of energy. Because the CAISO does not have visibility, metering, or telemetry over Net Energy Metering (“NEM”) resources, their ability to charge from the grid and export to the grid affect the CAISO. Now unencumbered by capacity or interconnection limits under NEM 2.0, NEM resources' impacts will require coordination among the CAISO, the Commission, and distribution operators to ensure reliability and efficient markets.

The CAISO strongly supports Staff's recommendation of Proposal Two over Proposal One to address Tariff Problem One regarding storage charging limits.⁶ Proposal Two would allow energy storage systems participating under retail NEM tariffs to import from the grid in anticipation of a PSPS, *but not* export to the grid. In other words, NEM energy storage systems may transition out of the default non-import setting into non-export mode ahead of PSPS events. After the conclusion of the PSPS event, the systems would

⁶ See Section 3.2.4 *et seq.* of Staff Proposal (beginning on page 15).

reset back to the default non-import setting. On the other hand, Proposal One would allow storage resources to charge from the grid *and* export to the grid in advance of PSPS events. Staff recommended Proposal Two over Proposal One because “it will best maintain NEM integrity . . . [and] ensure that systems remain in compliance with NEM requirements even if they are not promptly reset following the conclusion of the PSPS event.”⁷ Staff noted that “[i]n contrast, under Proposal One, energy storage systems that are not properly reset after the PSPS event could continue to export energy that was derived from the grid, violating the intent of the NEM requirements.”⁸

The CAISO agrees that Staff’s recommendation of Proposal Two is consistent with the purpose of NEM tariffs and could help to serve demand during PSPS events. The CAISO also agrees that Proposal One would contravene NEM tariffs and blur the line between retail and wholesale. Proposal One effectively describes a wholesale transaction: the storage resource is purchasing energy from the grid and then selling it back to the grid for resale to other customers. Consistent with its jurisdiction, the Commission created NEM tariffs for retail consumers; not for wholesale merchant suppliers. Although charging from the grid and exporting to the grid during a PSPS could help meet microgrid demand during an outage, suppliers could take advantage of this change in NEM tariffs to seek retail compensation for wholesale transactions, entirely outside of PSPS events. As a principle, storage resources when operating under a retail tariff must charge at retail rates and discharge at retail rates, and when operating under a wholesale tariff, must charge from the grid and discharge from the grid at wholesale rates. Charging and discharging storage must be exclusively retail or wholesale transactions; they cannot be intermingled. For these

⁷ Staff Proposal at p. 16.

⁸ *Id.*

important reasons, the CAISO strongly supports Staff's preference for Proposal Two in lieu of Proposal One.

Respectfully submitted,

By: /s/ William H. Weaver

Roger E. Collanton

General Counsel

William H. Weaver

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

T – 916-608-1225

F – 916-608-7222

bweaver@caiso.com

Dated: January 30, 2020