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04/19/21
04:59 PM

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

Order Instituting Rulemaking to Consider
Policy and Implementation Refinements to the
Energy Storage Procurement Framework and
Design Program (D.13-10-040, D. 14-10-045)
and related Action Plan of the California
Energy Storage Roadmap.

Rulemaking 15-03-011

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E)
RESPONSE TO THE PETITION FOR MODIFICATION OF DECISION 17-04-039
OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO ADDRESS HYBRID
AND CO-LOCATED RESOURCES

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Dated: **April 19, 2021**

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Pursuant to Rule 16.4(f) of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), Southern California Edison Company (“SCE”) and Pacific Gas and Electric Company (“PG&E”) respectfully submit this *Response to the Petition for Modification of Decision 17-04-039 of the California Energy Storage Alliance to Address Hybrid and Co-Located Resources* (Petition) dated March 19, 2021.

I.

INTRODUCTION

SCE agrees that the station power treatment of hybrid and co-located resources is a complex issue deserving of the Commission’s thoughtful consideration and rulemaking. However, SCE does not agree that the Petition for Modification (PFM) procedure is the appropriate vehicle for addressing this important issue, particularly the instant Petition, which has a dearth of factual evidence upon which the Commission can base rule changes. The Petition

over-simplifies a complex and nuanced subject that will require the Commission to craft different rules for hybrid systems than those governing co-located resources. The Petition conflates and treats those resources as one and the same, which is factually and legally incorrect. For example, the Petition largely ignores the California Independent System Operator (“CAISO”) Tariff and its provisions relating to netting and the measurement of load for transmission purposes, which also apply to the treatment of station power load for these resources.¹ The Commission should not alter its tariffs without first having a complete understanding of how these changes will interact and potentially conflict with the CAISO Tariff and its settlement procedures. Likewise, the Petition contends that Commission intervention is “urgently needed,”² but provides no facts demonstrating that this issue is ripe, much less urgent.

SCE recommends and proposes that the Commission deny the Petition and instead convene a technical working group, hold workshops, prepare a staff report upon which parties can comment, and ultimately direct the utilities to submit advice letters to implement the tariff changes the Commission determines are appropriate and necessary to properly address the concerns raised by the Petition and that account for the CAISO’s tariff rules, including metering and settlement under the CAISO SPP. SCE recommends and proposes that the Commission deny the Petition and instead convene a technical working group, hold workshops, prepare a staff report upon which parties can comment, and ultimately direct the utilities to submit advice letters to implement the tariff changes the Commission determines are appropriate and necessary to properly address the concerns raised by the Petition and that account for the CAISO’s tariff rules, including metering and settlement under the CAISO Station Power Protocols (SPP). The Commission has already reopened the above captioned Rulemaking – R.15-03-011. Thus, there

¹ Also, the CAISO Station Power Protocol (SPP) in Appendix I of the CAISO Tariff could apply if a single entity owns the two (or more) co-located resources or a hybrid resource

² See Petition at p. 1; *also* Petition at p. 3 (“The current and future prevalence of generation paired with energy storage thus requires the Commission’s urgent and timely action to consider the appropriate station power rules and treatment.”)

is an open proceeding in which the Commission can initiate a process to thoughtfully review and, if necessary, craft comprehensive and appropriate station power rules for hybrid and co-located resources.

Although SCE disagrees that this matter is “urgent”, SCE acknowledges that the Petition correctly represents that many hybrid and co-located resources are coming online. SCE likewise concedes that aspects of the proposal may be appropriate with respect to hybrid – but not co-located – resources. Clarity in Commission-jurisdictional tariffs will thus benefit both generators and the utilities. SCE therefore supports the Commission initiating the above proposed process expeditiously so that the utilities can implement any appropriate tariff changes in the relatively near future.

II.

THE PETITION FAILS TO ARTICULATE A COGNIZABLE INJURY REQUIRING URGENT COMMISSION REDRESS

The Petition justifies its request for urgent action by the Commission based upon a lean factual record and theoretical harms.. Specifically, the Petition claims that the prevalence of generation paired with energy storage justifies urgent action by the Commission because without uniform tariff changes, “the station-power related rules and matters will be interpreted and applied for hybrid and co-located resources on a case-by-case basis by each [IOU]” and “[if inappropriately and inconsistently applied, or applied in ways that may uneven the playing field for the treatment of station power some resources compared to others, progress may be impeded, and sub-optimal resource selections could occur” with the “potential outcome [] that hybrid and co-located resources may be assessed retail charges for loads at the combined generating facility, which are not only discriminatory but could also significantly harm the economic viability of these projects.”³ The Petition additionally speculates that “hybrid and co-located resources could

³ Petition at pp. 4-5 (emphasis added).

also bear excessive metering costs that are not needed to delineate between wholesale and retail energy.”⁴ The Petition is devoid of a single concrete example of any such harm having actually materialized or of such harm imminently materializing in connection with an interconnecting resource.

Moreover, the Petition improperly assumes that hybrid and co-located resources are unique. For example, a traditional, large fossil plant may have multiple units at a single site behind a single CAISO revenue meter such that the units may have a single CAISO Resource ID. Station power rules should apply in a similar manner to similar resource configurations, and exceptions for hybrid and co-located resources may not need to be carved out. Given the lack of facts supporting the need for urgent action, SCE respectfully requests that the Commission employ one or more technical workshops, workshop report, and advice letter process.

III.

THE PETITION OVERSIMPLIFIES AND CONFLATES ISSUES THAT REQUIRE MORE THOROUGH AND COMPREHENSIVE TREATMENT

The Petition early on, but only once, correctly delineates hybrid and co-located resources, explaining that hybrid resources are “two or more resources operating under a single resource ID,” and co-located resources as “two or more resources operating under their own separate and individual resource IDs.”⁵ Thereafter, it consistently conflates the two, treating them as one and the same for the purpose of the relief requested. In addition to the Petition’s obfuscation of the facts, the Petition fails to appropriately account for the CAISO Tariff and its rules for settlements for both energy and transmission and misconstrues the CAISO SPP in part. These omissions obscure the complexity of the issues, particularly with respect to co-located resources. Retail

⁴ *Id.* at p. 5.

⁵ Petition at p. 3.

tariff changes based upon such an inaccurate oversimplification risks that downstream consequences will materialize, including incompatibility with the CAISO Tariff.

For instance, the Petition in advocating for retail “self-supply” rules for station power, largely ignores *the impact* of the CAISO Tariff rules for settling energy produced (or discharged) by co-located resources. While the Petition does briefly acknowledge that co-located resources (unlike hybrid resources) are treated by the CAISO Tariff as two separate resources, each with its own Resource ID (each a “Resource”) and subject to separate dispatch, metering, and settlement for energy by the CAISO,⁶ there is no recognition of how this impacts the examples provided.

The CAISO Tariff also impacts whether transmission service is deemed to be used by station power load. The Petition does not analyze (or mention) that under the CAISO SPP, a resource with one Resource ID cannot “on-site self-supply” the station power of another resource with a separate Resource ID.⁷ Rather, separate Resources can “remote self-supply,” provided they are part of a portfolio of Station Power resources owed by the same person or entity, and

⁶ See CAISO’s October 16, 2020 Hybrid Resources Final Report, available at <http://www.caiso.com/InitiativeDocuments/RevisedFinalProposal-HybridResources.pdf>, explaining (at p. 5) (stating, “[t]he concept of the co-located resource is that there could be a combination of multiple different generation technologies of different fuel types behind a single point of interconnection that each participate in the ISO markets as distinct resources with their own market resource ID. The collection of resource behind the point of interconnection are optimized by the ISO’s market using the entire collection of bids or self-schedules. Each resource is individually metered and telemetered. Co-located resources may be comprised of one or more variable energy resources or resources that are not variable energy resources.” This is different from a hybrid resource, which is defined (at p. 5) as “[a] Generating Unit, with a unique Resource ID at a single Point of Interconnection, with components that use different fuel sources or technologies.”) (emphasis added).

The Report makes clear that its proposed changes to co-located resources involve “no changes to the way that settlements are calculated today” (at p. 16). Thus, each Resource continues to be metered and settled separately under the CAISO’s tariffs, which is relevant to how station power can be served under CAISO’s tariff rules.

⁷ See e.g., CAISO’s Station Power Program Overview, available at <https://www.caiso.com/Documents/StationPowerProgramOverview.pdf>, explaining (at p. 2) that “On-Site Self-Supply [is] Energy from *a Generating Unit* that is deemed to have self-supplied all or a portion of *its* associated Station Power load without use of the ISO Controlled Grid during the Netting Period.”

participating in the CAISO SPP.⁸ Under the CAISO Tariff, on-site self-supply is limited to load located at the same electrical point. Specifically, the CAISO Tariff assumes the use of the ISO Controlled Grid and measures the station power load as Gross Load⁹ for transmission cost allocation purposes, no matter whether any power ever flows on the ISO Controlled Grid, unless the resource (Generating Unit or energy storage device) is serving *its own station power load* either through Permitted Netting or pursuant to Section 3.1 of the CAISO SPP.¹⁰

Despite these CAISO Tariff provisions, the Petition advocates identical self-supply and netting *retail* rules for co-located resources and hybrid resources, treating these resources as indistinguishable for station power purposes, when they are, for dispatch, metering, settlement, and transmission purposes, actually distinct under the CAISO' Tariff, including the CAISO SPP (and likewise need to be for retail station power rules).¹¹ A more detailed explanation follows.

The Petition claims that:

[R]esources configured as co-located, meaning two separate resources with distinct resource IDs, are viewed and optimized by the CAISO with individual resource IDs, albeit subject to the aggregate capability limit. Through this, onsite-charging-only is operationalized through the bidding and scheduling of

⁸ See *id.*, explaining that “Remote Self-Supply [is] Positive Net Output from generating resources in the Station Power Portfolio **that is deemed to have self-supplied Station Power load of other Generating Units** in the Station Power Portfolio during the Netting Period, where such self-supply **requires use of the ISO Controlled Grid.**” A Station Power Portfolio is “[o]ne or more generating resources eligible to self-supply such Station power, including Generating Units in the ISO Control Area, and generating facilities outside the ISO Control Area, where all such facilities are **owned by the same entity.**”

⁹ See the CAISO's definition of Gross Load Approved by Letter Order on Dec. 23, 2020, at <http://www.caiso.com/Documents/Oct23-2020-TariffAmendment-ExcessBehindtheMeterProduction-ER21-190.pdf#search=Gross%20Load>, at pp.10-11, which explains “[f]or purposes of this definition, Generating Units, storage devices, and Loads will be considered onsite where they share, or are sub metered behind, the same [CAISO] meter.”

¹⁰ See CAISO's Fifth Replacement Tariff at Appendix I (Station Power Protocol), at Section 3.1 (Self Supply Verification), available at https://www.caiso.com/Documents/AppendixI_StationPowerProtocol_May1_2014.pdf.

¹¹ See *e.g.*, Petition at p. 14, stating “[a] case-by-case assessment of operating modes of hybrid and co-located resources will reveal that no differentiation is needed based on the hybrid versus co-located resource market participation configuration and how the existing rules and tariffs apply readily to ensure appropriate delineation of wholesale and retail energy” (emphasis added).

the separate generation and storage component resources **so the high-side meter will again read no grid-supplied energy to assess station loads.**¹²

The Petition goes on to claim that the “low side” meters (*i.e.*, the IOU retail meters) are the potential cause of unfair measurement and assessment of retail charges for station power loads.¹³ However, the Petition’s example is misleading in that the reading on the high-side meter is not relevant to the CAISO. Also, the load of the co-located storage is not considered “on-site” of the co-located generating facility, because it is not behind the same CAISO meter.¹⁴ So, while a high-side meter may measure no grid-supplied energy, the CAISO’s meter will “see” the generation used to serve co-located storage load, and the CAISO may be paying the generator for the generation measured on the CAISO’s meter, in which case there can be no self-supply, because the generator should not be able to use the generation for two separate purposes.

Also, as noted above, the CAISO Tariff *assumes* the use of the ISO Controlled Grid and measures the station power load as Gross Load for transmission cost allocation purposes, no matter whether any power ever flows on the ISO Controlled Grid. The Petition fails to account for this, which leads to flawed assumptions about “self-supply” of station power load for co-located resources.

An example is found on page 21 of the Petition, where a co-located Generator is producing 100 MW and a co-located Storage resource has 5 MW of station power load. The Petition points out that the high-side meter only reads 95 MW; however, because the two Resources have separate Resource IDs, the CAISO’s meter is measuring 100 MW of wholesale generation and presumably settling with the Generator as if it is selling 100 MW. There can be no on-site self-supply because the situation does not fall into either the Permitted Netting construct or the SPP construct for on-site self-supply, which would allow the Generator to self-supply its own station power load over the course of a month. This is so even if 100 MW power

¹² *Id.*, at p. 17 (footnote omitted).

¹³ *See id.*

¹⁴ *See* fn. 9 *supra*.

never flows onto the CAISO grid because there are two Resource IDs, the CAISO “sees” over an hour a 100 MWh wholesale sale, and 5 MWh of load based on metering. How the 5 MWh is treated by the CAISO depends on whether the Generator and Storage Resources are both eligible to be included in a single SPP portfolio. Co-located resources can remote self-supply (rather than on-site self-supply) if both resources are owned by a single legal entity and participate in the CAISO SPP. If that were the case, at the end of the month the 5 MWh could be deemed to be served by the Generator and CAISO settlements would be recalculated to address this remote self-supply. SCE notes that in the remote self-supply example, transmission charges are assessed directly by CAISO to the portfolio, so under the example above, there would be a bill for 5 MWh of transmission in the given hour. However, as the Petition mentions,¹⁵ to take advantage of monthly-measured remote self-supply (and monthly-measured on-site self-supply for the Generator’s own station power load), the resources must subject themselves to a potential for effectively paying twice for the same energy. If either of the resources is drawing power into their retail meter during any state-jurisdictional metering interval, the retail rate less transmission charges apply. This is because if power is drawn through the retail meter to serve station power load, that amount is *lawfully* being charged the retail rate (for everything but transmission) under the IOU’s retail tariff for resources on the SPP. At the same time, under the CAISO SPP, the Generator is being treated as if it generated the very same energy and its payments from the CAISO are reduced after the fact (*i.e.*, from 100 MWh to 95 MWh, using the simplified example). The CAISO SPP should have been, but never was, amended after *SCE v. FERC*,¹⁶ despite SCE’s request. Perhaps the generators can persuade the CAISO to amend its tariff to remove the effective double billing for retail station power load.

¹⁵ Petition, at p. 23, fn. 27.

¹⁶ *S. Cal. Edison Co. v. FERC*, 603 F.3d 996 (D.C. Cir. 2010). FERC encouraged interested parties to address changes to the CAISO Tariff through the CAISO stakeholder process. *Duke Energy Moss Landing*, 134 FERC ¶ 61,151 (2011). Notably, SCE provided the CAISO a redlined SPP that would have eliminated the double charge issue, but the CAISO did not pursue the matter.

IV.

CONCLUSION

For the foregoing reasons, SCE recommends and respectfully requests that the Commission deny the petition and convene one or more technical workshops as necessary, require a workshop report upon which parties can comment, and ultimately direct the utilities to submit advice letters to implement any tariff changes the Commission determines are appropriate and necessary to properly address the concerns raised by the Petition.

Respectfully submitted,

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