

**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
(Filed on March 26, 2015)

**REPLY OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO THE ASSIGNED
COMMISSIONER'S RULING REQUESTING RESPONSES TO QUESTIONS
REGARDING HYBRID AND CO-LOCATED STORAGE RESOURCES**

Jin Noh
Policy Director

Sergio Dueñas
Policy Manager

CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: cesa_regulatory@storagealliance.org

December 17, 2021

**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
(Filed on March 26, 2015)

REPLY OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO THE ASSIGNED COMMISSIONER’S RULING REQUESTING RESPONSES TO QUESTIONS REGARDING HYBRID AND CO-LOCATED STORAGE RESOURCES

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits this reply to the *Assigned Commissioner’s Ruling Requesting Responses to Questions Regarding Hybrid and Co-Located Storage Resources* (“Ruling”), issued by Assigned Commissioner Martha Guzman Aceves on October 27, 2021.

I. INTRODUCTION.

CESA appreciates the Commission’s attention to our Petition for Modification (“Petition”) submitted on March 19, 2021 for all the reasons stated in our initial responses to this Ruling. The basis and specifics of CESA’s Petition were echoed in support by American Clean Power – California (“ACP-CA”), Independent Energy Producers Association (“IEP”), Solar Energy Industries Association (“SEIA”), and the California Independent System Operator Corporation (“CAISO”). Meanwhile, Public Advocates Office (“Cal Advocates”) submitted responses in support or agreement on certain aspects of CESA’s Petition but questioned the applicability of Decision (“D.”) 17-04-039 to certain operating modes of hybrid and co-located resources.

Similarly, while disparaging many aspects of CESA’s Petition and opposing their applicability for all co-located resources, the Southern California Edison Company (“SCE”), San Diego Gas and Electric Company (“SDG&E”), and Pacific Gas and Electric Company (“PG&E”) – referred to herein as the Joint Utilities – appear to “concede” on the applicability of self-supply provisions and permitted netting for hybrid resources only regardless of grid-charging capabilities.

In this reply, CESA not only reiterates the importance of timely resolution of our Petition but also urges the Commission to not be persuaded by the Joint Utilities “fog of complexity” and instead refer to the core basis of CESA’s Petition, which was summarized by CAISO in its response:¹

“...the intent and reasoning in Decision 17-04-039 were an extension of the extant rules for conventional generation. The decision simply extended the self-supply and netting rules to storage to ensure a level and fair playing field. CESA’s Petition does the same for co-located and hybrid resources. Being a mixed-fuel resource does not change the fact that co-located and hybrid resources are engaged in providing wholesale energy. Co-located and hybrid resources are even more similar to conventional generation than stand-alone energy storage because the former can produce their own energy.”

CESA wholly agrees. Even though CESA provided a case-by-case assessment of different operating modes for hybrid and co-located resources in our Petition, and again used examples in this reply to rebut the Joint Utilities’ arguments on a relatively esoteric and technical matter, the detailed examples were intended to ultimately conclude that there is no reason to relitigate D.17-04-039 or to unnecessarily launch a new rulemaking process when in fact the current station power rules readily apply to hybrid and co-located resources. To this end, the CAISO aptly explains that station power rules for hybrid and co-located resources ultimately boil down to ensuring a level, consistent, and fair playing field with that of standalone energy storage and conventional

¹ CAISO response at 3.

generation with certain affirmations and clarifications to D.17-04-039, as requested by CESA in our Petition. Our reply can thus be summarized as follows:

- All parties seem to mostly agree that hybrid and co-located resources have the right to self-supply their internal power needs, including station service, by using onsite generation to serve station service for the generation and paired storage resources and avoid retail energy charges.
- All parties seem to mostly agree that hybrid resources that never charge from the grid should be allowed to self-supply from the onsite generation and net station load from storage discharge.
- The utilities' arguments that co-located resources are not allowed to self-supply and/or apply permitted netting for station service based on the premise that they are not "electrically connected at the same point" is incorrect and inapplicable to determining station power treatment.
- Permitted netting rules established in D.17-04-039 can readily apply to storage components of hybrid and co-located resources that can charge from the grid and serve station loads of the onsite generation.
- Market certainty is improved, not reduced, by approving the requests in the Petition.
- The Commission has jurisdiction over station power treatment of resources and does not need to assess for conflicts with the CAISO Tariff to take action since there are no conflicts.
- The Commission should not adopt SDG&E's "compromise" proposal because it lacks clarity, would inappropriately broaden the scope, and could be unnecessarily prescriptive.

II. AREAS OF AGREEMENT.

- A. All parties seem to agree that hybrid resources have the right to self-supply their internal power needs, including station service, by using onsite generation to serve station service for the generation and paired storage resources and avoid retail energy charges.**

No parties clearly challenged the right to self-supply of hybrid and co-located resources, with Cal Advocates pointing to findings in D.17-04-039 that allowed an energy

storage resource to serve station power load with other on-site generation or through contracting with remote resources.² Cal Advocates also agreed that CESA’s concerns about “idle” energy storage could be addressed with changes to net against the combined CAISO dispatch of generation and storage, and not be subject to retail charges despite the self-supply from onsite generation.³ The Joint Utilities’ position is not as clear or explicit, but their response suggests that they also agree on the right to self-supply for hybrid resources in particular, stating that a hybrid resource may self-supply via permitted netting, even though this was prefaced by explanations that the storage component generally should not be permitted to use wholesale energy to serve station power load.⁴ Given the Joint Utilities’ statement that hybrid resources may self-supply and since onsite generation is being used to provide its station service as well as that of the onsite paired storage component, there is no wholesale energy being used, we therefore deduce that there is general agreement that hybrid resources may self-supply. Accordingly, the Commission can clearly find alignment to affirm CESA’s request in this regard for “onsite charging only” and “net injection to grid from onsite generation” operating modes⁵ of hybrid resources where station loads should not be assessed retail or wholesale charges when there is no grid-supplied energy, and any station loads are being provided by onsite generation.

However, the Joint Utilities appear to oppose co-located resources’ ability or allowance to self-supply from onsite generation, consistent with their overall position that the station power rules established in D.17-04-039 cannot be extended in any part to co-located resources since, by definition, they are not electrically connected at the same point

² Cal Advocates response at 2.

³ *Ibid* at 4 and 7-8.

⁴ Joint Utilities response at 5-6.

⁵ CESA’s Petition at 15.

and are subject to separate dispatch, settlement, and modeling.⁶ We tackle the Joint Utilities’ artificial distinctions between hybrid and co-located resources in Section III.A below.

B. All parties seem to mostly agree that hybrid resources that never charge from the grid should be allowed to self-supply from the onsite generation and net station load from either generation or storage discharge.

Except for the Joint Utilities’ disagreement with the ability to net station service for co-located resources, all parties generally agree that hybrid resources that never charge from the grid should not be subject to any retail or wholesale charges of power since all station power load is either served by onsite generation or served by stored energy from the onsite generation in previous intervals.⁷ As IEP adds, any inflow of energy from the grid can thus clearly be delineated as retail draws, obviating the need for low-side meters.⁸ CESA agrees, and as explained in subsequent Section III.A below, this use case should be similarly affirmed for co-located resources. Given current federal investment tax credit (“ITC”) incentives, affirming this finding and use case can provide immediate clarity for a substantial number of projects in the near term. At the same time, CESA believes that the Commission’s resolution of CESA’s Petition should not be narrowly limited to this specific use case since piecemeal resolution is unnecessary. Station power rules for co-located resources in general and grid-charging hybrid and co-located resources can readily be clarified, as explained further below.

⁶ Joint Utilities response at 3-4.

⁷ See, e.g., Cal Advocates response at 3 and 7.

⁸ IEP response at 2-3.

III. AREAS OF DISAGREEMENT.

A. The utilities' arguments that co-located resources are not allowed to self-supply and/or apply permitted netting for station service based on the premise that they are not "electrically connected at the same point" is incorrect and inapplicable to determining station power treatment.

The Joint Utilities contend that, since co-located resources are not electrically connected at the same point and are subject to separate dispatch, settlement, and modeling,⁹ the CAISO's permitted netting rules are not allowed and does not permit the use of a high-side meter to delineate wholesale, retail, or self-supplied energy.¹⁰ For unclear reasons, in contrast to co-located resources that must be separately metered, the Joint Utilities explain that hybrid resources can leverage high-side meters and low-side sub-meters.¹¹ However, as Cal Advocates comments, the Commission's station power rules should treat hybrid and co-located resources consistently given their functional equivalence.¹² The Commission has already recognized no differences in hybrid and co-located resources in adopting a qualifying capacity ("QC") for these resources, explaining that they are capable of identical physical characteristics and charging restrictions.¹³

While the CAISO developed different market models (*e.g.*, forecasting, bidding, settlement) for hybrid and co-located resources, there is nothing from the CAISO's Tariff or recent tariff amendment filings to the Federal Energy Regulatory Commission ("FERC") that precludes installing and leveraging a high-side meter to address station power issues for co-located resources. In the Hybrid Resources Final Proposal, the CAISO explained that meters are required for each component of the co-located resources to measure and

⁹ Joint Utilities response at 6.

¹⁰ *Ibid* at 11.

¹¹ *Ibid*.

¹² Cal Advocates response at 3-4.

¹³ D.20-06-031 at 29-30.

settle dispatches for the generation and storage components considering the fact that they have their own individual resource IDs, as well as a meter at the point of interconnection, which is not required.¹⁴ However, comments to this effect suggest that this is possible and could be used as a means to address the station power issues at hand; otherwise, there would be no reason for the CAISO to present examples of metering configurations that are disallowed for co-located resources.

Furthermore, the Joint Utilities point to conflicts with CAISO Tariff Section 10.1.3.1 on permitted netting, which is only allowed for resources “electrically connected at the same point,” as reasons why co-located resources should not be allowed to use self-supply or permitted netting rules.¹⁵ First, “electrically connected at the same point” is not explicitly defined in the CAISO Tariff to stipulate that CAISO Tariff Section 10.1.3.1 or the Commission’s rules established in D.17-04-039 do not apply to co-located storage resources. Even if co-located resource components are subject to separate dispatch, settlement, and modeling, they are located behind the same point of interconnection (“POI”) just like hybrid resources, such that, electrically speaking and from a physical perspective, they are located at the same electrical point.¹⁶ Second, whether the CAISO optimizes the scheduling and dispatch of the components under a co-located model or whether the resource operator and scheduling coordinator (“SC”) optimize the scheduling and dispatch of the components under a hybrid model makes no difference in terms of the physical and electric characteristics of the combined resource, nor should it impact self-

¹⁴ Appendix D of *California Independent System Operator Corporation Co-located Resources Clarification* filed on January 8, 2021 in Docket No. ER21-843-000 at 12-14.

¹⁵ Joint Utilities response at 3-4.

¹⁶ The Joint Utilities seem to be steering co-located resources toward remote self-supply pathways for co-located based on these arguments and based on their responses

supply and station power treatment. Finally, CESA adds that high-side or master metering and settlement of co-located resources are already occurring today. For DC-coupled co-located resources, for example, a high-side meter is used to settle the dispatch of the two component resources (and the CAISO has allowed as such) since there are no revenue-grade DC meters at this time that can provide Settlement Quality Meter Data (“SQMD”).

Overall, this is an artificial distinction created by the Joint Utilities based solely on how hybrid versus co-located resources are registered at the CAISO. As a result, CESA urges the Commission to dismiss these artificial distinctions made by the Joint Utilities and adopt consistent station power rules that recognize self-supply and permitted netting for both hybrid and co-located resources in accordance with our Petition.

B. Permitted netting rules established in D.17-04-039 can readily apply to storage components of hybrid and co-located resources that can charge from the grid and serve station loads of the onsite generation.

Notwithstanding the Joint Utilities’ argument that any self-supply or permitted netting should not apply to co-located resources in any circumstance,¹⁷ the greatest source of disagreement or concerns appears to surround the applicability of permitted netting for hybrid and co-located resources with storage components that are capable or allowed: (1) to charge from the grid; and (2) serve the station loads of onsite generation. While D.17-04-039 addresses how energy storage can serve its own (storage-specific) station loads under permitted netting rules (*i.e.*, where the absolute value of CAISO dispatch is greater than station loads in a 15-minute settlement interval), it does not address whether permitted netting rules can apply to provide station service for generating facilities in hybrid or co-located configurations behind the same POI. As explained in our Petition, since D.17-04-

¹⁷ Joint Utilities response at 7.

039 was focused on clarifying station power rules for standalone energy storage, it did not contemplate how these rules would apply in these instances.

The thrust of the concern or opposition with CESA's Petition is around storage components charging from the grid in one interval at wholesale rates and then to use that energy to serve the station power of the standalone energy storage and onsite generation, thus purportedly avoiding retail rates for station power.¹⁸ The Joint Utilities lay out an example of the storage component of a co-located resource discharging at 40 MW for one hour in response to CAISO dispatch and also serving 2 MW of station power load for the onsite solar facility, allowing 2 MWh to be netted from the 40 MWh, to which the utilities argue would allow station service to be provided for free.¹⁹ This example, first and foremost, does not make sense and does not reflect the reality of how a hybrid or co-located resource would actually operate. To be able to clear the 2 MWh for station service and adhere to the CAISO's dispatch of 40 MWh, the storage component would actually discharge 42 MWh to avoid any uninstructed imbalance energy ("UIE") charges for deviating from CAISO schedule. With that said, permitted netting can apply and be extended to the storage components of both hybrid and co-located resources, even if the storage component is allowed to charge from the grid.

Contrary to the Joint Utilities' assertions that CESA is ignoring how storage is charged,²⁰ CESA recognizes that electrons cannot be "colored" or "tagged" to determine whether stored energy came from the grid or from the onsite generation in cases where the energy storage component is allowed to charge from either the grid or onsite generation.

¹⁸ Joint Utilities response at 2-3 and Cal Advocates response at 3 and 6.

¹⁹ Joint Utilities response at 7-8.

²⁰ *Ibid* at 5.

Yet, the application of permitted netting for the storage component of a hybrid or co-located resource should be consistently applied as it is for standalone energy storage resources, regardless of state of charge or the availability of output from the onsite generation facility.²¹ To illustrate, CESA provides the following example that highlights how the permitted netting rules can readily apply to the energy storage component of hybrid and co-located resources that ensure appropriate wholesale versus retail treatment based on whether they are dispatched by the CAISO and whether this dispatch exceeds station load. For simplicity, the example below assumes consistent station loads of 1 MWh and 0.5 MWh, respectively, for the 100 MW solar and 50 MW energy storage in either hybrid or co-located configuration.

*Table 1: 100 MW Solar and 50 MW / 200 MWh Storage Example
(All Units in MWh, [+] Indicates Discharge/Generation, [-] Indicates Charge/Load)*

	Interval						
	1	2	3	4	5	6	7
Solar Station Power	- 1.0	- 1.0	- 1.0	- 1.0	- 1.0	- 1.0	- 1.0
Storage Station Power	- 0.5	- 0.5	- 0.5	- 0.5	- 0.5	- 0.5	- 0.5
Storage Charge/Discharge (Low-Side Meter)	- 50.0	- 50.0	- 50.0	- 50.0	+ 1.5	+ 1.5	+ 50.0
Storage State of Charge	48.5	97.0	145.5	194.0	192.5	191.0	141.0
Solar Generation	+ 50.0	+ 100.0	+ 50.0	0.0	0.0	0.0	0.0
Storage Dispatch	0.0	0.0	0.0	- 50.0	0.0	+ 1.5	+ 50.0
High-Side Meter Read	0.0	+ 48.5	0.0	- 48.5	0.0	0.0	+ 48.5
Self-Supply	Yes	Yes	Yes	No	No	No	No
Permitted Netting	No	Yes	No	Yes	No	No	Yes
Retail Station Power	0.0	0.0	0.0	0.0	1.5	1.5	0.0

In the above example, the Commission can see in Intervals 1-3 that the energy storage is being self-supplied its station loads from the onsite solar generation, which all parties mostly agree should be allowed and not charged any wholesale or retail energy charge, with the exception of the Joint Utilities arguing that it is inappropriate or unlawful

²¹ Cal Advocates response at 8 and 11.

for co-located resources. In the subsequent Interval 4, however, the energy storage is scheduled and dispatched by the CAISO market to draw 50 MWh from the grid, netting the station loads for the grid charging at wholesale rates (- 48.5 MWh) pursuant to D.17-04-039. With 194 MWh state of charge of the energy storage component provided by both grid-supplied and self-supplied energy at the end of Interval 4, the Joint Utilities and Cal Advocates are correct that physical distinctions cannot be made regarding which of the MWh was provided from onsite generation versus from the grid.

Yet, the permitted netting rules can readily apply to the energy storage component of a hybrid or co-located resource, just like for a standalone energy storage resource. Regardless of whether the stored energy came from grid-supplied or self-supplied energy, the storage component is serving station loads of the hybrid and co-located resources when the storage component is “idle” (neither charging or discharging in response to CAISO dispatch) in Interval 5 and when the storage component is discharging but at less than or equal to the station loads in Interval 6 – both instances where the permitted netting rules in D.17-04-039 dictate that retail rates should apply even though a portion of the stored energy came from self-supplied onsite generation in earlier intervals.²² While arguments are made against permitting station power with energy stored from the grid at a wholesale rate, D.17-04-39 has already established permitted netting rules that allow for such station power treatment when dispatched by the CAISO in excess (in absolute value terms) of the station power load *for that particular interval*. Fundamentally, there is no difference between a

²² In the future, after resolution of CESA’s Petition, the Commission could consider refining the station power rules to create an accounting methodology (*e.g.*, last-in, first-out) to differentiate how grid-charging storage in hybrid and co-located resources should be assessed the appropriate rates – *i.e.*, no charge if self-supplied stored energy and wholesale rates if grid-supplied stored energy serving station loads, subject to permitted netting rules.

standalone energy storage resource and a hybrid/co-located resource operating in Intervals 4-7 of our example, except that, for the latter, some portion of the stored energy came from self-supplied onsite generation in previous intervals. As commented by the Cal Advocates,²³ the permitted netting of station power with CAISO dispatch can apply (*e.g.*, in Intervals 5-6) without needing to make distinctions between grid-supplied and self-supplied stored energy from previous intervals.

As such, the Commission should affirm and clarify the extension of the permitted netting rules for energy storage resources in hybrid and co-located resource configurations, regardless of whether the configuration prevents or allows grid charging since such distinctions make no difference in the determination of whether station power loads of the onsite generation and storage resource can be netted, so long as the CAISO dispatch of the combined resource is greater than these station loads. As it stands, D.17-04-039 is not clear in this regard and thus clarifications to these ends are warranted.

Finally, CESA disagrees with the Joint Utilities' argument that permitted netting cannot occur for co-located resources since, in their example, the storage component would be paid in full for 40 MWh in accordance with its separate meter read rather than netted for the 2 MWh of station power load that is served by the storage component. CESA is not proposing that station power consumption be provided for "free" as if it was self-supplied²⁴ but rather that it be netted when taking into account the combined response from the

²³ Cal Advocates response at 3 and 6.

²⁴ CESA acknowledges that our Petition and Reply should have been more precise with terminology to clarify that "self-supply" refers to onsite generation serving its own station service and that of the storage component, whereas energy storage discharge serving its own station service and that of the onsite generation is not "self-supply" but would entail an application of the permitted netting rules applied to the combined resource. That is, energy storage is not self-supplying to the onsite generation's station load but would have permitted netting apply to the onsite generation's station service.

resource and the high-side meter read. In this example, while the storage component would be paid for 40 MWh for its CAISO dispatch, the high-side meter would read 38 MWh and allow the utility to essentially “net” out station service for the onsite solar by having the 2 MWh be assessed the wholesale rate during that settlement interval.

IV. MARKET CERTAINTY IS IMPROVED, NOT REDUCED, BY APPROVING THE REQUESTS IN THE PETITION.

The Joint Utilities argue that the existing rules are sufficiently flawed such that any expansion of these rules to hybrid and co-located resources could “create chaos and innumerable disputes.”²⁵ To the contrary, CESA believes that the chaos and disputes are actually created by *not* clarifying the station power rules for hybrid and co-located resources and *not* granting consistent treatment for hybrid and co-located resources for all projects of this type as compared to standalone energy storage and conventional generation projects. ACP-CA and SEIA echo concerns about the lack of an underlying framework as leading to case-by-case treatment of station power rules and risk to project development.²⁶ The Joint Utilities’ proposed path to establish a new rulemaking to consider these issues and some of their alternative proposals and changes will actually lead to innumerable disputes by not establishing a consistent policy and by opening up the station power rules to relitigation, with standalone energy storage resources facing collateral harm in the process even though the rules for standalone energy storage were not the subject of CESA’s Petition. Rather, market certainty will be enhanced by granting CESA’s Petition.

²⁵ Joint Utilities response at 8.

²⁶ ACP-CA response at 2 and SEIA response at 1-2.

V. **THE COMMISSION HAS JURISDICTION OVER STATION POWER TREATMENT OF RESOURCES AND DOES NOT NEED TO ASSESS FOR CONFLICTS WITH THE CAISO TARIFF TO TAKE ACTION SINCE THERE ARE NO CONFLICTS.**

The Joint Utilities assert that some of CESA’s recommendations clearly violate the CAISO Tariff and FERC policy, contending that CESA’s Petition ignores the CAISO and does not determine whether there are restrictions related to the CAISO Tariff that might impact station power rules for hybrid and co-located resources.²⁷ Further, the Joint Utilities attempt to complicate matters by criticizing CESA’s Petition as obfuscating definitions for CAISO Tariff-permitted netting rules from the “netting provisions” of each of the utilities’ station power tariffs.²⁸ The CAISO has already clearly stated that it sees no conflicts with the CAISO Tariff and has reiterated that the CAISO’s Station Power Protocols are “anachronistic” and unused.²⁹ As aptly explained by Cal Advocates, the Commission has the authority to make determinations on the treatment of station power for co-located and hybrid resources, with the CAISO being able to accommodate any revisions to the CAISO Tariff, if necessary.³⁰ The repeated calls to assess for conflicts with the CAISO Tariff are unnecessary considering all of the above and should not be used to delay action on this important matter.

VI. **THE COMMISSION SHOULD NOT ADOPT SDG&E’S “COMPROMISE” PROPOSAL BECAUSE IT LACKS CLARITY, WOULD INAPPROPRIATELY BROADEN THE SCOPE, AND COULD BE UNNECESSARILY PRESCRIPTIVE.**

Within the Joint Utilities’ response, a “compromise” proposal from SDG&E is included, intended to reduce the possibility of disagreements on this station power issue. CESA appreciates SDG&E’s spirit in looking for areas of agreement and compromise to reach resolution on these

²⁷ Joint Utilities response at 2 and 8.

²⁸ *Ibid* at 3 and 13.

²⁹ CAISO response at 4-5.

³⁰ Cal Advocates response at 13.

matters, but we find the three specific proposals to either be unclear, unnecessary, or inappropriate given previous determinations made in D.17-04-039 and thus recommend that the Commission *not* adopt these proposals.

First, SDG&E proposes to redefine “Idling” as all settlement intervals, other than those in which the energy storage unit has a non-zero schedule with the CAISO to inject or withdraw energy.³¹ SDG&E argues that this redefinition will remove ambiguity, but it is unclear why this is necessary given the permitted netting rules in place. Even with a schedule to provide grid services such as spinning reserves, D.17-04-039 already established that idling storage where it is neither charging or discharging³² would not be allowed to pay wholesale for station loads.³³ It is also unclear how this addresses the specific scenarios that CESA submitted in the Petition where the energy storage component of the co-located resource may be “seen” as idling due to the lack of a CAISO schedule but with self-supply being provided from the onsite generation. How does this redefinition of “idling” apply to or address the issues with hybrid and co-located resources? CESA does not seek to modify the extensively litigated rules and definitions for standalone energy storage but rather to simply extend them to hybrid and co-located resources.

In addition, SDG&E proposes to clarify that, for purposes of determining the amount of power that should be billed at a retail rate for station power service, the response to the CAISO dispatch must be within 10% of the CAISO instruction for the settlement interval.³⁴ CESA is unclear on what is being proposed here and whether this would apply to standalone energy storage resources or hybrid/co-located resources, or both. Is SDG&E proposing that the absolute value of the energy schedule must be greater than 10% of the measured station load in a settlement interval?

³¹ Joint Utilities response at 9.

³² D.17-04-039 at 42.

³³ *Ibid* at 52 and Finding of Fact (“FOF”) 20.

³⁴ Joint Utilities response at 9.

For example, an energy storage resource with a 1 MWh station load and a 1.09 MWh charge or discharge schedule would have the 1 MWh station load billed at retail based on our understanding of SDG&E's proposal. If this interpretation is correct, this specific proposal would potentially expand the scope of CESA's requested Petition and relitigate determinations made in D.17-04-039 that established permitted netting rules for standalone energy storage resources. There was no minimal energy schedule threshold established to mitigate concerns about storage resources "evading retail station power charges" as suggested by SDG&E. In fact, this was an issue that was explicitly addressed in D.17-04-039:³⁵

"We note that adoption of any rule results in incentives for operators, whose goal is to maximize their revenues, however CESA provided compelling arguments in its reply comments on the Proposed Decision that there are negative operational issues that would occur if the energy storage operator constantly modified their profile in the manner that SCE and TURN theorize. Thus we do not find SCE and TURN's arguments convincing."

Specifically, the referenced reply comments from CESA were as follows:³⁶

"The gaming concern is presumably based on assumptions that it could be economically rational to charge and discharge an energy storage resource to cross the threshold to qualify for permitted netting in all settlement periods. This statement is equivalent to a gas unit always operating enough to net its retail loads at wholesale rates. This is technically possible today for generators yet not done because real-life assets have operating costs and the wear and tear on the equipment along with fuel costs mean that it is a guaranteed money-losing strategy for an operator. The reasoning for energy storage is much the same: assets have finite cycle life (resulting in similar calculations for variable O&M and wear and tear on a generator), and round-trip efficiency losses mean that there is a real cost in extra energy that must be purchased (efficiency losses being similar to fuel costs for conventional resources). As such, *this "gaming" of station power settlement would be a terrible strategy that no self-interested owner of a*

³⁵ D.17-04-039 at 53.

³⁶ *Reply Comments of the California Energy Storage Alliance on Proposed Decision on Track 2 Energy Storage Issues* filed on March 21, 2017 in R.15-03-011 at 3.
<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M182/K363/182363632.PDF>

storage asset would execute, just as no conventional generation owner does this today.” [*emphasis added*]

The Commission already considered these concerns and did not establish any such minimum energy schedule threshold. While it could be an option to use an estimation method instead of a metering-based option as outlined in PG&E’s Electric Schedule E-STORE,³⁷ it should not be required or be the only option. More importantly, this proposal would unnecessarily broaden the scope of the Commission’s consideration of CESA’s Petition *narrowly for hybrid and co-located resources*, instead more broadly impacting standalone energy storage resources as well. This is inappropriate and out of scope here. If the Joint Utilities wish to request that the Commission make this change, it is within their rights to submit their own Petition for Modification to change these specific rules, along with clear evidence and facts that make the case for making any requested change.

Finally, SDG&E proposes that the energy storage component of a hybrid resource adopt a metering provision that allows the utility to determine in each settlement interval whether the energy storage unit is charging or discharging, and the magnitude of such charge or discharge.³⁸ Again, CESA is unclear on what is meant by “metering provision” and points to the Commission’s deferral of adopting any specific metering configurations.³⁹ Any such consideration should not prescribe a metering configuration or preclude the use of estimation methods as an option. CESA’s Petition did not prescribe metering requirements but rather advanced a means by which a high-side meter could be used to delineate wholesale versus retail draws of electricity for the purposes of assessing the appropriate charges for station loads. This would avoid project-by-project

³⁷ PG&E Electric Schedule E-STORE Special Condition 3.

https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_E-STORE.pdf

³⁸ Joint Utilities response at 9.

³⁹ D.17-04-039 at 57.

negotiations for the purposes of establishing a standard high-side metering configuration that delineates wholesale versus retail draws of electricity and clarifies periods where self-supply rules should apply, but how metering should be configured on the low-side should not be prescribed and flexibility should be maintained.

VII. CONCLUSION.

CESA appreciates the opportunity to submit this reply to the Ruling and respectfully requests that the Commission grant the requested relief from CESA's Petition as soon as possible. Based on the record development in response to CESA's Petition and the Ruling, CESA believes further process (*e.g.*, new rulemaking) is not needed to narrowly address the clarifications and affirmations requested in CESA's Petition. The urgency to resolve these issues are underscored by the Commission ordering the procurement of 11,500 of incremental net qualifying capacity ("NQC") by 2026.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. Noh', written in a cursive style.

Jin Noh
Policy Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: December 17, 2021