

**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 March 26, 2015)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENTS  
ON JOINT REPORT AND STAFF PROPOSAL**

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January 31, 2017

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)<sup>1</sup> hereby submits these reply comments on the *Administrative Law Judge’s Ruling Seeking Comments on Joint Report and Staff Proposal*, issued by Administrative Law Judge Michelle Cook on January 10, 2017 (“Ruling”).

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<sup>1</sup> 8minutenergy Renewables, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, Aquion Energy, Bright Energy Storage Technologies, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, Electric Motor Werks, Inc., ElectrIQ Power, ELSYS Inc., Energy Storage Systems Inc., Enphase Energy, GE Energy Storage, Geli, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, Johnson Controls, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mercedes-Benz Research & Development North America, National Grid, Nature & PeopleFirst, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy LLC, OutBack Power Technologies, Parker Hannifin Corporation, Powertree Services Inc., Qnovo, Recurrent Energy, RES Americas Inc., Saft America Inc., Samsung SDI, Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Southwest Generation, Sovereign Energy, Stem, Sunrun, Swell Energy, Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

## **I. INTRODUCTION.**

CESA provides these reply comments in response to comments file by parties related to the Joint Report and Staff Proposal (“Proposal”) attached to the Ruling for the Commission’s consideration.

## **II. ARGUMENTS RAISED AGAINST WHOLESALE ACCOUNTING FOR STATION POWER LOADS IN PERIODS OF NEGATIVE GENERATION ARE INAPPLICABLE AND ERR IN THEIR LOGIC.**

The Proposal describes how wholesale accounting of retail (station power) loads is appropriate during periods in which energy storage is participating in wholesale markets, *i.e.* sales for resale. Since the conventional paradigm for this long-standing treatment is referred to as ‘netting’, the Proposal uses this term, including in periods in which station power loads would be added to a negative generation amount.

### **A. Arguments Over the Term ‘Netting’ Are Inapplicable Because ‘Netting’ Can be Designed to Meet the Policy Intent of Allowing Wholesale Accounting For Energy Storage Loads During Periods of Market Participation.**

Netting is a useful term that links to formal definitions in the California Independent System Operator’s (“CAISO”) Tariff. The CAISO’s definition of ‘Net Output’, for example, is sufficient to allow for ‘netting’ during periods of negative generation. CAISO Tariff Appendix A specifically defines ‘Net Output’ as ‘the gross energy output from a Generating Unit less the Station Power requirements for such Generating Unit during the Netting Period, or the Energy available to provide Remote Self-Supply from a generating facility in another Balancing Authority Area during the Netting Period.’<sup>2</sup> This definition clearly suggests net output is applicable to periods of negative generation, and that netting is not limited solely to definitions

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<sup>2</sup> CAISO Tariff, Appendix A, p. 96.

of relating to self-supply. Interpretations of these that conflate station power with self-supply are thus inapplicable.

Notwithstanding the CAISO's existing and clear definition, opinions on the definition and applicability of the term station power also miss the more important regulatory discussion and principled need for non-discriminatory rate treatment for energy storage. CESA therefore recommends the Commission clarify its intent with the use of the word 'netting' so that arguments that attempt to undermine the policy discussion through disagreements over the use of fraught words are avoided. Such an effort could effectively address Southern California Edison Company's ("SCE's") Opening Comments that focus in part on purely linguistic concerns. Specifically, SCE states it is "mathematically incongruous to "net" two loads."<sup>3</sup> If permitted netting for station power is further defined, in addition to the currently defined 'net output', as "adding the station power load to the wholesale market energy output level or schedule for a settlement interval of 15-minutes or larger - be the output level positive, negative, or zero - for purposes of determining a combined wholesale level settlement position", then SCE's concerns are misplaced. These changes should also address similar concerns raised by PG&E and SDG&E.<sup>4</sup>

**B. Rules For 'Similarly Situated Customers' Authorize Wholesale Accounting For Station Power Loads During Periods of Market Participation.**

While many parties agree that energy storage is similarly situated to conventional generation with respect to the applicability of station power rules, some parties suggest that a wholesale accounting of station power loads for such resources would result in disparate

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<sup>3</sup> Comments of Southern California Edison, pgs. 6-7

<sup>4</sup> See Comments of Pacific Gas & Electric, pgs. 12-13, and of San Diego Gas & Electric, pgs. 3-4

treatment for similarly situated customers. This amounts to zero opposition to Proposed Rule Number 1 in the Report: “Energy storage, as it is being procured and used to date, is similarly situated to conventional generation.”<sup>5</sup> Based on the Opening Comments filed by parties, CESA understands that *not a single party* suggested or implied that energy storage in the wholesale market is not similarly situated to traditional generation.

The examples and findings presented by LS Power’s Opening Comments show that energy storage resources operating *without* wholesale accounting for station power loads during periods of negative generation yield discriminatory outcome for a similarly situated customers.<sup>6</sup> The Energy Division staff’s position in the Report is correct in finding that both positive and negative generation are both wholesale activities, and rate treatment of operating loads should be equal in both. The fact is that conventional generation has a non-trivial positive Pmin, and is therefore not capable of providing any useful wholesale market services when its output is negative. Historically, rules were not written with negative generation capability in mind, because there was none at the time they were written, which is completely understandable. It is time to make the necessary updates based on today’s technology, and the simplest and most equitable way to do so is in line with the proposals of the joint report.

Moreover, SCE’s comments conflate a generator’s ‘start-up phase’ with an energy storage actively providing services to the grid, *e.g.* through negative generation.<sup>7</sup> These two services are demonstrably different and should reasonably have different rules. Rules for the treatment of start-up costs are well-established in CAISO markets, and the CAISO’s Energy

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<sup>5</sup> CPUC and CAISO Joint Report and Proposal, pg. 29.

<sup>6</sup> See Joint Workshop Report, pgs. 12-14.

<sup>7</sup> Comments of Southern California Edison, pgs. 7-8

Storage and Distributed Energy Resources Initiative (“ESDER”) Phase 2 is actively considering treatments for start-up costs for energy storage non-generator resources (“NGRs”). Previously, energy storage start-up rules for proxy demand resources (“PDRs”) were considered in the CAISO’s Commitment Cost Enhancements Phase 3. Clearly, start-up costs for resources implicate a different category of rules. The Report makes the correct determination in comparing like with like, in this case operating loads of two types of wholesale market participant. If an energy storage technology needs to start pumps, compressors, or other loads in order to begin operating into the wholesale market, such start-up loads should of course be treated identically to the start-up loads of any other type of generator. But arguments that start-up loads prior to operation of one type of asset are equivalent to the *operational* loads of another type of asset are logically flawed.

**C. Implication That Station Power Rules Are an ‘Incentive’ or That Market Pricing Renders Station Power Rules Unnecessary Are Flawed.**

SCE’s comments conflate the role and policies of station power rate treatments for wholesale market participation with the concept of price signals, incentives or of “providing a valuable service to the grid.”<sup>8</sup> SCE errs in suggesting that these points might influence or inform station power rules, which instead function as a body of rules for governing accounting of station power loads during periods of wholesale market participation. First, market price signals are important but neither trump nor substitute for the role of fair and reasonable station power rules. For example, station power rules for conventional generators do not imply that such rules are not necessary if market prices are high, *e.g.* at \$1000/MWh. Yet SCE implies that negative prices, which are currently floored at – \$150/MWh should override the need for station power rules for

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<sup>8</sup> Comments of Southern California Edison, pgs. 8-10

energy storage resources providing negative generation. This point misses how station power rules are designed to promote reasonable, fair, and competitive market participation from all resources, and that this proceeding is focused on those rules for energy storage resources.

Incentive programs are fundamentally different in nature to station power rules. Examples of incentive programs, such as the Self-Generation Incentive Program, can provide structures to support technology deployments or other goals but are often not applicable to a broad body of market participants and instead only apply to willing participants in the program. Station Power rules, by contrast, are a critical body of rules for wholesale market participation. As the Energy Storage Rulemaking specifically focused on developing station power rules for energy storage, SCE's concerns amount to a scoping challenge of the Storage OIR, implying that incentives were not in scope for the Storage Rulemaking so station power rules should not be developed. CESA believes the Commission should develop clear policy guidance and rules for station power for energy storage that is fair to all resource types, which in no way requires consideration of providing "incentives" to anyone.

SCE's point of linking rules only to 'providing a valuable service to the grid' is also inapt. SCE implies that station power rules could be less applicable in some circumstances. Again, this concern implies that station power rules are an incentive to guide behavior of resource operators. This narrow view misses the larger point that station power rules are important and critical to energy storage competition in wholesale markets. SCE's points on tying station power rules to 'providing value to the grid' may well suggest station power rules for traditional generators would disallow netting during periods of 'overgeneration,' or perhaps anytime energy prices are negative. Such rules miss the large concepts of market efficiencies through clearing prices, and the fundamental premise of de-regulation and of competitive



markets, wherein merchant actors in a competitive environment yield an overall efficient market outcome by individually working to maximize profits through individual decision-making, albeit subject to rules and procedures for efficient market participation and to ensure grid reliability.

**III. RULES FOR DIFFERENTIATING WHOLESALE MARKET PARTICIPATION FROM BEHIND THE METER ENERGY STORAGE MULTIPLE-USE APPLICATIONS ARE IN EFFECT TODAY – STATION POWER RULES FOR SUCH PROJECTS SHOULD BE ESTABLISHED NOW.**

Several parties suggest the Commission delay a decision or finding on station power rules for Energy Storage in Behind the Meter (“BTM”) applications, including Multiple-Use Applications (“MUAs”).<sup>9</sup> These parties cite views that not all MUA configurations are contemplated, that several processes, such as the process for retail bill calculation or of CAISO processes for settlement configurations, may require further development, and that perceptions of jurisdictional issues may warrant a delay.

CESA advocates that these concerns are mostly inapplicable, so long as existing rules appropriately differentiate retail services from wholesale market services. First, current and established rules already contemplate how and when select BTM resource can engaged in and be compensated for wholesale market participation. Such FERC-approved rules have been developed through years of stakeholder input, including that of California’s IOUs, most of which were supportive of these rules.<sup>10</sup> In these rule development efforts, CESA has consistently supported the need to only compensate resources for unique and incremental wholesale services, such that routine retail actions were not inappropriately compensated. Second, concerns over

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<sup>9</sup> See comments of Southern California Edison pg. 15, Pacific Gas & Electric pg. 8-10, and San Diego Gas & Electric, pg. 3.

<sup>10</sup> See CAISO’s Energy Storage and Distributed Energy Resources Phase 1. This initiative developed baseline methodologies for energy storage in BTM MUAs and is FERC approved. Concerns raised by the CA IOUs were addressed in various instances and in the FERC approval process.

process timelines and needs, such as for new settlement processes, while fair, should not arrest progress. With respect to CAISO settlements, CESA cannot speak for the CAISO but understands that the CAISO is very engaged not only in the Commission's Energy Storage OIR but also in the CAISO's own and related initiatives, such as the Energy Storage and Distributed Energy Resources Initiative ("ESDER") phase 2, metering rules enhancements, and other efforts to understand and address concerns and downstream needs from rule changes in a timely fashion. With respect to the IOU settlement process, CESA recommends the IOUs inform the Commission on an aggressive but reasonable implementation timeline, so that the Commission can determine when any new rules should 'go live.' CESA suggests an Advice Letter process for addressing these 'process' concerns, some of which surely will require vetting and thought-work. Finally, as CESA understand their comments, SCE and others err in expressing concerns of jurisdictional uncertainties. With ESDER 1 rules already in place and approved by FERC and by court outcomes related to BTM resources like demand response participating in wholesale markets, as well as with the CPUC's jurisdictional authority over station power rules cemented by court decisions, statements about jurisdictional uncertainty appear to lack merit.

**IV. RULES TO REQUIRE TWO-METERS, OR TO SUGGEST THAT EVEN A TWO-METER SOLUTION IS INSUFFICIENT ARE OVERLY RESTRICTIVE AND LACK AN APPRECIATION OF ALTERNATIVE METERING ARRANGEMENTS.**

CESA supports SCE's comments that prescriptive metering requirements for energy storage systems are premature. While CESA supports the intent of the two-metering requirements, to ensure adequate and accurate distinctions between energy appropriately accounted for as part of a wholesale transaction or service versus energy appropriately accounted for as part of a retail service, CESA believes this goal can be achieved through other methods.

As CESA indicated in its Opening Comments,<sup>11</sup> multiple configurations of metering can yield the accurate accounting needed without the explicit two-meter requirement.

SCE highlights how it seeks “flexibility with respect to metering for energy storage systems while still ensuring that wholesale and retail loads are distinguishable.” Having the ability to establish a mutually agreeable solution with energy storage system providers is appropriate in the near term, provided wholesale and retail loads are distinguishable.”<sup>12</sup> Based on this, CESA believes the Commission should reject arguments from IEP and PG&E that two or more metering configurations are the necessary way to differentiate between wholesale and retail loads.<sup>13</sup> PG&E’s comments, for example, do not factor in the role of baselines in determining what usage is for wholesale vs for retail. Without the use of a baseline, concerns over a blurring of wholesale and retail lines *could be* applicable. Given the FERC approved PDR baseline approach, however, this example merely serves to reinforce the idea that clear differentiation is needed.

Given the alternative to achieve the same goals without an explicit two-meter requirement, CESA views such an approach as merely adding costs unnecessarily (in some cases). This distinction is important for MUAs, including for BTM energy storage providing both market and onsite host customer services at various times. CESA therefore supports the need only for *some verifiable form of* measurement by which to accurately account for when and how much BTM loads are part of wholesale-directed actions.

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<sup>11</sup> See Comments of California Energy Storage Alliance, pgs. 7-8 and Appendix A

<sup>12</sup> Comments of Southern California Edison, pgs. 9-10

<sup>13</sup> See Comments of Independent Energy Producers (pg. 2) and Pacific Gas & Electric (pgs. 13-15)

V. **CONCLUSION.**

CESA appreciates the opportunity to submit these comments and looks forward to working with Commission and stakeholders to implement the recommendations provided in the Report.

Respectfully submitted,



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Date: January 31, 2017