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 PROPOSED DECISION ON TRACK 2 ENERGY STORAGE ISSUES

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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")¹ hereby submits these reply comments on the *Proposed Decision on Track 2 Energy Storage Issues*, issued by Commissioner Carla J. Peterman on February 24, 2017 ("Proposed Decision").

I. <u>INTRODUCTION.</u>

In these reply comments, CESA responds to comments made by parties regarding station power rules for in-front-of-the-meter ("IFOM") energy storage systems, Assembly Bill ("AB") 2868 implementation, and eligibility considerations.

¹ 8minutenergy Renewables, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, Bright Energy Storage Technologies, BrightSource Energy, Brookfield, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ElectrIQ Power, ELSYS Inc., eMotorWerks, Inc., Energport, Energy Storage Systems Inc., Enphase Energy, GE Energy Storage, Geli, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NICE America Research, NRG Energy, Inc., OutBack Power Technologies, Parker Hannifin Corporation, Qnovo, Recurrent Energy, RES Americas Inc., Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, Sunrun, Swell Energy, UniEnergy Technologies, Wellhead Electric, and Younicos. The views expressed in these Reply Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (http://storagealliance.org).

II. PERMITTED NETTING RULES SHOULD ENSURE EQUAL TREATMENT OF IN-FRONT-OF-THE-METER ENERGY STORAGE SYSTEMS PARTICIPATING IN THE WHOLESALE MARKET.

The record for the Commission's determination on station power for energy storage is robust, following numerous rounds of comments and workshops as well as a Staff Report issued on January 10, 2017. Despite this, several flawed arguments or inapplicable points are presented via Comments on the Proposed Decision.

The Commission certainly recognizes that netted station power is not 'free energy'. In fact, the claim by Pacific Gas and Electric Company ("PG&E") and San Diego Gas and Electric Company ("SDG&E") that permitted netting rules for IFOM energy storage systems would equate to free station power during charging completely overlooks the fact that all energy related to charging is billed at appropriate wholesale rates. No 'free' energy is ever contemplated.

Allowing netting at a rate that mirrors the wholesale rate does not imply that the Commission is ceding authority of retail rates to the Federal Energy Regulatory Commission ("FERC"), nor that such a rate would truly be jurisdictionally wholesale, as implied by Southern California Edison Company ("SCE").³ The record clearly explains how station power rates are a retail jurisdiction matter. If the Commission choses to set retail rates and netting protocols at levels that *coincide* with wholesale rates, it does not mean that the rates are wholesale.

Arguments of a cost-shift via station power netting for energy storage charging are flawed as well.⁴ Such arguments are based on a counter-factual set of rules, such as the rules that, PG&E prefers.⁵ In reality, however, the Commission is now in the process of determining station power netting rules for energy storage. With energy storage adding load to the system, all existing load customers may reasonably be expected to pay a somewhat *smaller* share of system fixed costs. Thus, any energy storage deployments shift costs *away* from existing customers. SCE's logic is flawed and based only on its assumption of a future scenario where deployed energy storage projects suddenly stop paying for certain costs. Furthermore, billing energy storage charging at full retail rates would be likely to result in increased energy and ancillary services costs far exceeding any potential cost shift.

² PG&E's comments, p. 7-9, and SDG&E's comments, pp. 3-4.

³ SCE's comments, pp. 6-9.

⁴ PG&E's comments, p. 9, SCE Comments, p. 9, and SDG&E's comments, p. 3.

⁵ PG&E Comments, p. 9.

Concerns about 'gaming' and the 'value of' negative generation are flawed. Both the Utility Reform Network ("TURN") and SCE raise these concerns and imply that permitted netting could be less appropriate in some periods.⁶ CESA disagrees, and notes the following logical flaws that explain why similarly situated generators all have station power netting rules at all times, and not just when some party believes there is 'value' to the grid. First, gaming concerns are overblown and unreasonable. 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 storage asset would execute, just as no conventional generation owner does this today. If the concern reflects a view that multiple-use applications ("MUAs") could seek to limit station power loads in certain intervals and can 'make-up' for that delayed station power need in later intervals, this concern is also flawed and the different roles and loads of an MUA will need to be determined by the Commission.

The belief that station power netting should link to the 'value' to the grid is also flawed. SCE, for example, routinely self-schedules units, implying that these resources will generate regardless of revenues and costs. By its logic, SCE implicitly endorses elimination of permitted netting for all generators during periods of overgeneration, even if a generator is still running. Generally, wholesale markets provide helpful price-discovery to guide behaviors, but market participation is complicated, entails risk, and may reflect different merchant strategies. So long as MUA rules ensure only incremental actions and dispatches are compensated, the merchant faces the risks of the market in an appropriate fashion. Generally, concepts of 'deemed grid value' are not applicable to station power netting rules, which are more about non-discriminatory participation and equal participation considerations.

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⁶ SCE's comments, p. 10; and TURN's comments, p. 7.

III. PROCUREMENT REQUIREMENTS PURSUANT TO ASSEMBLY BILL 2868 SHOULD BE SET PRIOR TO THE UTILITIES FILING APPLICATIONS TO GUIDE THEIR PROGRAMS AND INVESTMENTS.

CESA appreciates the Commission's efforts to effectuate the AB 2868 statute in a timely manner. While some confusion or differences of interpretation of the statute may exist, the Commission is aware of its overarching authority to regulate its jurisdictional utilities, including through directing the submission of Applications and interpreting statute.

The Commission is right to determine a plan for the Energy Storage Procurement ("ESP") Framework Applications of the investor-owned utilities ("IOUs") and to roll their actions into the existing biennial process. It is not necessary, as PG&E suggests, to delay establishing procurement requirements until after each of the IOUs files its 2018 ESP Framework Applications.⁷ The Commission also can define programs and investments in such a way that the Commission, within the bounds of the statute, sees the generally desired IOU response -e.g., with a focus on low-income or public-sector customers to deploy energy storage systems. Additionally, an Application, complete with the off-ramps associated with AB 2514 energy storage procurements, such as with cost-effectiveness, will allow for ongoing review and assessments of reasonableness.

The Commission has ample precedent to reasonably interpret legislation and to advance the legislative intent or related policy objectives. For example, the Commission exercised similar authority following the passage of AB 1637, which authorized the Commission to consider whether it should fully authorize the doubling of funds for the Self-Generation Incentive Program ("SGIP"). In other words, the Commission is empowered to use the maximum authorization set by statute to set mandatory procurement requirements to achieve important policy objectives, such as those from SB 350, and its requirement for the Commission to consider disadvantaged communities in its decision-making processes.

Finally, CESA believes that procurement targets are helpful for directing IOU consideration of the best uses of procurement, program, or investment opportunities. A key finding from the AB 2514-directed energy storage procurements is that directed procurement was critical to much of the recent IOU procurement and adoption of energy storage. Despite this great progress, energy storage remains a *de minimus* amount of California's fleet, and the pressure for further IOU applications for potential storage procurements seem essential to

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⁷ PG&E's Comments, p. 5.

supporting the further competition and usage of energy storage. For low-income customers, in particular, CESA understands there may be historically underserved populations that may require higher-levels of Commission direction in the form of procurement instructions or targets to ensure that key constituencies benefit from the improved resilience, reduced greenhouse gas emissions, and reduced customer bills from distributed energy storage systems. It is unclear how the Commission will be better informed to set a procurement requirement after the IOUs have submitted applications with programs and investments pursuant to AB 2868.

IV. <u>EXISTING ELIGIBILITY DEFINITIONS SHOULD BE USED FOR AB 2514 RELATED PROCUREMENT IN THE NEAR-TERM.</u>

Some parties disagreed with the Proposed Decision on controlled charging ("V1G") eligibility and recommended that this technology category be eligible. While CESA is strongly supportive of transportation electrification, it may complicate energy storage industry transformation efforts to change existing eligibility standards now. This view is based on criteria determined in R.10-12-007 that a "storage system" needs to be "new" or "installed" to be consistent with Public Utilities ("P.U.") Code Section 2835(c). The Proposed Decision also notes that the operationalization of these already-deployed assets may be accomplished in other proceedings, procurement mechanisms, and pilots, such as the IOUs' recently-filed Transportation Electrification Applications, the 2018 Demand Response Auction Mechanism ("DRAM") Pilot Program, and other pilot programs testing electric vehicle ("EV") charging.

V. CONCLUSION.

CESA appreciates the opportunity to submit these reply comments on the Proposed Decision and looks forward to continuing to work with the Commission in this proceeding.

Respectfully submitted,

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CALIFORNIA ENERGY STORAGE ALLIANCE

Date: March 21, 2017

⁸ Joint Parties' Comments, p. 3; SCE's Comments, p. 14; and TURN's Comments, p. 3.