

**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.

R.15-03-011
Filed March 26, 2015

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON THE DECISION ON TRACK 1 ISSUES**

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TABLE OF CONTENTS

I. INTRODUCTION.....1

II. THE COMMISSION SHOULD EMPLOY A FLEXIBLE PROCUREMENT FRAMEWORK WITH SPECIFICITY AS APPROPRIATE.....2

III. THE COMMISSION SHOULD NOT ALLOW IOUS TO PROSCRIBE BLANKET PHASE 1 INTERCONNECTION REQUIREMENTS.....3

IV. RAMPING AND MULTI-USE CAPABILITIES OF ENERGY STORAGE SHOULD BE FULLY VALUED.....4

V. THE PROPOSED DECISION STRIKES A REASONABLE BALANCE ON ALLOWING CUSTOMER-DOMAIN ENERGY STORAGE PROJECTS TO COMPETE AGAINST T&D PROJECTS.....5

VI. THE PROPOSED DECISION REASONABLY ADDRESSES THE CONSISTENT EVALUATION PROTOCOL AND CONFIDENTIALITY RULES.....6

VII. THE PROPOSED DECISION REASONABLY ADDRESSES TECHNOLOGY ELIGIBILITY.....6

VIII. THE POWER CHARGE INDIFFERENCE ADJUSTMENT (PCIA) MECHANISM SHOULD BE REVIEW IN A SEPARATE OR DIFFERENT PROCEEDING.....6

IX. THE ROLE AND AUTHORITY OF A SAFETY-RELATED WORKING GROUP SHOULD BE CLARIFIED.....7

X. CONCLUSION.....8

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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 comments on the *Proposed Decision on Decision on Track 1 Issues*, issued by Assigned Commissioner Carla J. Peterman on December 15, 2015 (“Proposed Decision”).

I. INTRODUCTION.

CESA greatly appreciates the careful consideration of energy storage policy and program issues that the Proposed Decision seeks to resolve in advance of the investor-owned utilities’

¹ 1 Energy Systems Inc., Abengoa, Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, ARES North America, Brookfield, Chargepoint, Clean Energy Systems, CODA Energy, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Duke Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ELSYS Inc., Energy Storage Systems, Inc., Enersys, EnerVault Corporation, Enphase ENERGY, EV Grid, Flextronics, GE Energy Storage, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IMERGY Power Systems, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, K&L Gates, LG Chem Power, Inc., LightSail Energy, Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Manatt, Phelps & Phillips, LLP, Mitsubishi Corporation (Americas), Mobile Solar, NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, Renewable Energy Systems Americas Inc., Rosendin Electric, S&C Electric Company, Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sony Corporation of America, Sovereign Energy, Stem, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Tri-Technic, Wellhead Electric. 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>).

(“IOU’s”) 2016 energy storage procurement solicitations. CESA was an active participant in the Commission-led workshops on issues related to energy storage procurement practices held on July 28, 2015, and another workshop on energy storage technology eligibility and safety held on August 19, 2015; and subsequently submitted comments on the Energy Division Draft Workshop Reports on Energy Storage Track 1 (“Reports”).² In those comments, CESA stressed the importance of: (a) balancing the need for specificity in future energy storage solicitations; (b) ensuring an appropriate and nuanced evaluation of interconnection requirements for energy storage bids; (c) creating avenues to increase procurement of customer-side domain storage in excess of the current targets; and (d) maintaining flexibility in evaluating bids as market rules and regulations develop.

CESA generally supports Proposed Decision and urges the Commission to expeditiously issue a final decision so that the Commission and stakeholders can begin to address the numerous important issues that are expected to be within the scope of Track 2 of this proceeding. In these comments, CESA discusses the parts of the Proposed Decision that CESA supports, and recommends certain revisions to the Proposed Decision.

II. THE COMMISSION SHOULD EMPLOY A FLEXIBLE PROCUREMENT FRAMEWORK WITH SPECIFICITY AS APPROPRIATE.

The Proposed Decision does not propose any significant changes to the request for offers (“RFO”) process and eligibility requirement framework, granting the IOUs flexibility in evaluating the procurement of a new energy storage resources. In previous comments on the Reports, CESA called for greater specificity in RFO solicitations, within reason and as applicable, to aid bidders in designing solutions while allowing for enough IOU flexibility to

² See, *Comments of the California Energy Storage Alliance on Energy Division Draft Workshop Reports on Energy Storage Track 1*, filed October 2, 2015.

consider innovative bids. CESA reiterates its previous comments and recommends the Proposed Decision to be revised to require future RFO solicitations to provide greater specificity, as appropriate.

III. THE COMMISSION SHOULD NOT ALLOW IOUS TO PROSCRIBE BLANKET PHASE 1 INTERCONNECTION REQUIREMENTS.

Onerous and unnecessary interconnection requirements often lead to higher project development costs and may preclude the cost-effective deployment of certain energy storage projects, particularly aggregated behind-the-meter projects. The Proposed Decision defers to the IOUs in setting interconnection requirements associated with RFOs and determines that site control does not convey the same level of project feasibility as more detailed interconnection studies. CESA is concerned that the complete deferral of the determination of interconnection requirements in the RFOs to the IOUs could potentially lead to future RFO solicitations to require bids that are further along the interconnection process. Future RFO solicitations should continue the 2014 process of allowing bidders provide estimates of transmission and distribution upgrade costs tied to a proposed project upon application and having projects meet interconnection requirements by the time the contract is approved. Given the comments from the IOUs on the Reports, they appear very likely to increase interconnection requirements, which are unreasonable given the long lead time between initial proposal and contract approval and unnecessary given the alternative mechanisms available to demonstrate project feasibility, such as through performance deposits or evidence of site control. CESA therefore recommends discouraging the IOUs from setting onerous and unnecessary interconnection requirements in evaluating future bids, and to continue 2014 interconnection practices.

The Commission's final decision should also affirm that site control and interconnection study requirements do not apply to aggregated customer-side energy storage. SCE stated in its

Reply Comments on the Workshops, “SCE clarifies that for aggregated customer side storage, there is no requirement for a defined site, and there is no requirement for a Phase 1 interconnection study. This requirement simply does not apply to aggregators.”³ This reasonable revision should apply to all of the 2016 RFOs.

Finally, as station power is slated for consideration in Track 2 of this proceeding, any existing IOU approaches to treatment of station power should not be considered precedential. CESA plans to articulate serious concerns about the potentially discriminatory application of station power rules to energy storage resources in the initial contract terms of some 2014 solicitations in Track 2.

IV. RAMPING AND MULTI-USE CAPABILITIES OF ENERGY STORAGE SHOULD BE FULLY VALUED.

Energy storage systems are capable of providing a multitude of different services, even as market mechanisms to appropriately compensate these services are currently in development. The Proposed Decision, however, declines to require the IOUs to value all possible revenue streams for multi-use applications and does not address CESA’s comments on valuing ramping capabilities of energy storage systems when discussing the Consistent Evaluation Protocol (“CEP”). While CESA understands that the IOUs could not assess bids with these capabilities in the 2014 biennial solicitation cycle, CESA reiterates its previous comments on the Reports pointing out that the Energy Storage & Distributed Energy Resource (“ESDER”) and Frequency Resource Adequacy Criteria and Must-Offer Obligation (“FRACMOO 2”) initiatives managed by the California Independent System Operator (“CAISO”) are likely to conclude in 2016 and establish market rules for multi-use applications and flexible resource adequacy

³ *Reply Comments of Southern California Edison Company on the Final Combined Workshop Report for Energy Storage*, filed October 9, 2015, pp. 4-5.

capacity, respectively. Therefore, for the 2016 biennial solicitation cycle, CESA recommends that the Commission require the IOUs to put in place a process for incorporating these new market mechanisms in the evaluation of bids. Otherwise, energy storage systems will be undervalued and not appropriately considered for the full range of services and benefits that they can provide.

V. THE PROPOSED DECISION STRIKES A REASONABLE BALANCE ON ALLOWING CUSTOMER-DOMAIN ENERGY STORAGE PROJECTS TO COMPETE AGAINST T&D PROJECTS.

CESA supports the Proposed Decision in allowing customer-domain energy storage projects to compete against transmission and distribution (“T&D”) domain projects while still preserving minimum megawatt procurements in each domain in alignment with the market transformation goals established in D.13-10-004. The Proposed Decision appropriately establishes a 100% “floor” for deployment of energy storage in the customer domain and protects this domain from shifting T&D projects to meet customer domain needs, while establishing a 200% ceiling of the existing customer domain targets to meet a portion of the T&D domain deployment targets. Furthermore, by only allowing customer-sited projects that are not funded through the Self-Generation Incentive Program (“SGIP”) to count towards the T&D deployment targets, the Proposed Decision promotes fair competition and creates an opportunity for continued learning by the IOUs in deployment of energy storage in the customer domain.

CESA also recommends that, as part of these ‘domain’ rules, the RFO processes employed by the IOUs establish an expectation that future RFOs administered by an IOU that has not reached its customer-domain ceiling be designed such that aggregated customer-domain

energy storage is considered eligible. Where so determined, the bidding requirements, forms, and contracts should accordingly avoid raising barriers to aggregator participation.

VI. THE PROPOSED DECISION REASONABLY ADDRESSES THE CONSISTENT EVALUATION PROTOCOL AND CONFIDENTIALITY RULES.

CESA supports the Proposed Decision in maintaining the confidentiality rules used for 2014 bid pricing and generally supports the current CEP in providing sufficient information to compare bids across the IOUs. While improvements could be made to the CEP, such as in better capturing the full range of greenhouse gas emission related costs and benefits, it is sufficient in its present form to ensure appropriate Commission oversight of energy storage procurement by the IOUs.

VII. THE PROPOSED DECISION REASONABLY ADDRESSES TECHNOLOGY ELIGIBILITY.

CESA supports the Proposed Decision on establishing the eligibility of DC-based energy storage used as part of a DC microgrid as well as its decision to deem hydrogen-based power-to-gas to be ineligible for energy storage procurement pursuant to the energy storage targets set by Assembly Bill 2514.

VIII. THE POWER CHARGE INDIFFERENCE ADJUSTMENT (PCIA) MECHANISM SHOULD BE REVIEW IN A SEPARATE OR DIFFERENT PROCEEDING.

The Proposed Decision extends the authorization of the power charge indifference adjustment (“PCIA”) mechanism for the 2016 biennial solicitation cycle but defers resolution of changes to the PCIA mechanism and extension of the PCIA mechanism beyond 10 years for energy storage contracts to the Applications for Approval of Contracts. Cost recovery of departing load due to IOU procurement of energy storage systems is, of course, a topic that has the potential to impact the cost competitiveness of energy storage projects if the PCIA

mechanism is not reasonable and fair. However, CESA recommends that the Commission remove PCIA issues from the scope of this proceeding and consider them in either a new PCIA-specific proceeding or another Commission proceeding more focused on generic IOU procurement of cost recovery and allocation issues.

IX. THE ROLE AND AUTHORITY OF A SAFETY-RELATED WORKING GROUP SHOULD BE CLARIFIED.

CESA has been actively working with the Commission's Safety Enforcement Division to address energy storage safety, and once the working group discussed in the Proposed Decision is established, CESA plans to be an active participant. CESA therefore recommends clarification of the role and authority of the new working group itself due to concerns that binding protocols (essentially a new standard) will be hurriedly developed and adopted that do not necessarily lead to *safer* installations. The standard development process undertaken by Standard Development Organizations ("SDOs") takes years of cross-disciplinary expert collaboration and iteration to generate a final product that incorporates a comprehensive, scientific review of a technology's hazards and appropriate, effective hazard mitigation techniques. Furthermore, the wide array of energy storage technologies, applications, and siting locations create nuances that increase the necessary complexity of any standard to adequately address this resource class.

With these factors in mind, CESA recommends that the proposed working group be limited to a forum that brings together stakeholders and SDOs to discuss safety standards and installation best practices. The Commission should defer the ultimate adoption of binding protocols until relevant SDOs have developed a comprehensive energy storage safety standard that is applicable across multiple jurisdictions, not just those in California. The U.S. Department of Energy's Energy Storage Safety Working Group's Codes and Standards Subgroup is actively developing a pre-standard that addresses energy storage installations. In December 2015, CESA

submitted a request to the National Fire Protection Association (the SDO responsible for developing the National Electric Code) to use that pre-standard as a basis for developing a full energy storage installation standard. Conflicting safety protocols established by the Commission and SDOs would lead to inefficiencies in developers' and inspectors' time and resources. While CESA recognizes that SDOs and their ideas will be represented in the proposed working group, the Commission should not adopt binding protocols separate from those of the SDOs

After a full safety standard for energy storage system installations has been published by an SDO (anticipated within 12 to 24 months), CESA encourages the Commission to update any inspection protocol established by the safety working group and publish it in draft form for stakeholder comments before considering it for adoption. In this way, stakeholders can ensure that the latest safety issues are taken into consideration because a standard will often become outdated as technology advances, and that the draft protocols are aligned with those of the comprehensive, nationally-established standard.

X. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Proposed Decision and looks forward to working with the Commission and stakeholders on Track 2 issues.

Respectfully submitted,



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