

**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)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON THE PROPOSED DECISION OF COMMISSIONER PETERMAN  
ON MULTIPLE USE APPLICATION ISSUES**

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**TABLE OF CONTENTS**

I. INTRODUCTION.....1

II. RULES AND EXEMPTIONS SHOULD BE CLARIFIED THROUGH THE CATEGORIZATION OF MULTIPLE-USE APPLICATIONS AS EITHER TIME-DIFFERENTIATED, CAPACITY-DIFFERENTIATED, OR SIMULTANEOUS MULTIPLE-USE APPLICATIONS. ....3

III. MULTIPLE RULES NEED TO BE CHANGED TO AVOID BARRIERS, EXTRACT VALUE, AND ENSURE REASONABLE DEVELOPMENT AND OPERATIONS FOR MULTIPLE-USE APPLICATIONS, INCLUDING RULES 6, 8, 10, AND 11.....4

    A. Rule 6 must be changed because it reflects a flawed understanding of energy storage multiple-use applications.....4

    B. Rule 8 overly restricts multiple-use applications and should be revised.....6

    C. Rule 10 is unreasonable and should be Stricken in its entirety.....7

    D. Rule 11 is not needed.....7

IV. THE COMMISSION SHOULD AFFIRM SUPPORT FOR DUAL PARTICIPATION IN PROGRAMS, WHERE REASONABLE, WITH CLEAR GUIDING PRINCIPLES.....8

V. THE PROCEEDING SHOULD NOT BE CLOSED BECAUSE THIS PROCEEDING IS NEEDED TO ADDRESS EXISTING OR EVENTUAL MATTERS RELATING TO ENERGY STORAGE PROCUREMENT AND POLICIES IN SUPPORT OF ASSEMBLY BILL 2514.....9

VI. CONCLUSION.....11

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In accordance with the Rules and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)<sup>1</sup> hereby submit these comments on the *Proposed Decision on Multiple Use Application Issues* issued by Commissioner Carla Peterman on November 3, 2017 (“Proposed Decision”),

**I. INTRODUCTION.**

CESA appreciates the Commission’s work to develop the Multiple-Use Application (“MUA”) Framework by which to authorize and ensure MUAs can be developed and operated. No such framework exists anywhere in the world, and CESA salutes the Commission and

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<sup>1</sup> 8minutenergy Renewables, Able Grid Energy Solutions, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Brenmiller Energy, Bright Energy Storage Technologies, BrightSource Energy, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectriQ Power, eMotorWerks, Inc., Energport, Energy Storage Systems Inc., GAF, 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., Ormat Technologies, OutBack Power Technologies, Parker Hannifin Corporation, Qnovo, Recurrent Energy, RES Americas Inc., Semptra Renewables, Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Viridity Energy, Wellhead Electric, and 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>).

stakeholders for their efforts to craft workable, prudent, and forward-thinking policy on this matter.

The importance of supporting MUA rules for energy storage cannot be overstated. MUAs and their associated rules continue to be extremely important policy areas for CESA and its member companies. Fundamentally, supporting MUAs is in the broader ratepayer interest to the degree that leveraging energy storage systems to provide multiple services from the same assets creates a more cost-effective alternative to other solutions that lack the same versatility as energy storage. This type of system efficiency can thus benefit ratepayers while also ensuring a cleaner and more reliable electrical system.

In establishing rules to govern MUAs, the Commission needs to proceed with a vision of robust MUA use. If rules are too strict in prescribing MUAs, the viability of MUAs and their ability to provide cost-effective solutions and savings may be inappropriately limited. CESA refers to this as “leaving value on the table” – an outcome that CESA seeks to avoid. CESA previously suggested a principle-based approach that expressly prohibited inappropriate ‘double-counting’ or other risks while allowing broad flexibility for MUAs to be developed, evaluated, and operated. CESA still maintains that this principles-based approach as establishing a more flexible framework by which different MUAs can be innovated and provided, and requests that the Commission again consider this approach over the MUA Framework proposed in the Proposed Decision.

If the Commission moves forward with the Framework as proposed in the Proposed Decision, CESA suggest changes that leave the proposed Framework in place but remove problematic or inappropriate provisions. In this way, the Commission can remain confident it has placed appropriate guard rails on MUAs while ensuring the benefits of MUAs can begin to be realized. Further, CESA strongly suggests the Commission keep this proceeding open as a

vehicle for addressing energy-storage-specific policy matters that either still exist or that will surely need to be addressed in the future. This extension of the proceeding will also allow for iteration of the numerous issues listed by the Commission for follow-up work.

CESA's main comments are thus the following:

- The framework can be improved by more clearly determining when rules are applicable or not, based on if a MUA is time-differentiated, capacity-differentiated, or simultaneous.
- Several rules need to be changed to avoid barriers and to ensure reasonable development and operations for MUAs, including Rules 6, 8, 10, and 11.
- The Commission should affirm support for dual participation in programs, where reasonable
- The proceeding should not just be closed because either this proceeding or a successor proceeding is needed to address existing or eventual matters relating to energy storage procurement and policies in support of the implementation of Assembly Bill ("AB") 2514.

**II. RULES AND EXEMPTIONS SHOULD BE CLARIFIED THROUGH THE CATEGORIZATION OF MULTIPLE-USE APPLICATIONS AS EITHER TIME-DIFFERENTIATED, CAPACITY-DIFFERENTIATED, OR SIMULTANEOUS MULTIPLE-USE APPLICATIONS.**

CESA appreciates the thought work by which any MUA concerns are deemed non-applicable. Fundamentally, categorizing MUAs as either simultaneous, capacity-differentiated, or time-differentiated MUAs is a logical structure that can immediately remove or render rules inapplicable.

The Proposed Decision should be amended to clarify which rules apply to which MUAs. For instance, CESA understands that Rule 8 is primarily focused on capacity-differentiated MUAs. The application of Rule 8 for time-differentiated MUAs (or in some cases) simultaneous MUAs is likely burdensome and not reasonable.

CESA suggests a clearer structure and application of the proposed rules, which could take the form shown in the table below.

**Table 1: Example of the application of rules by the different types of MUAs**

<b>Time-Differentiated MUA</b>	<b>Capacity-Differentiated MUA</b>	<b>Simultaneous MUA</b>
<ul style="list-style-type: none"> <li>• Applicable Rule A</li> <li>• Applicable Rule B</li> <li>• Applicable Rule C</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Applicable Rule L</li> <li>• Applicable Rule M</li> <li>• Applicable Rule N</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Applicable Rule X</li> <li>• Applicable Rule Y</li> <li>• Applicable Rule Z</li> <li>• ...</li> </ul>

**III. MULTIPLE RULES NEED TO BE CHANGED TO AVOID BARRIERS, EXTRACT VALUE, AND ENSURE REASONABLE DEVELOPMENT AND OPERATIONS FOR MULTIPLE-USE APPLICATIONS, INCLUDING RULES 6, 8, 10, AND 11.**

The basis of the Commission’s MUA Framework is to establish a set of rules that detail how and where an energy storage device can provide multiple uses. The framework builds on a categorization of services as either ‘reliability’ or ‘non-reliability’ and also by the ‘domain’ of services. CESA is concerned that the Framework, as currently structured, is overly restrictive and will leave value on the table. The Framework has several unreasonable components and may at times be discriminatory or unworkable even to assets operating today. CESA details the changes needed to this framework below. These concerns primarily apply to cases of simultaneous MUAs.

**A. Rule 6 must be changed because it reflects a flawed understanding of energy storage multiple-use applications.**

CESA believes that Rule 6, as currently written, over-reaches in attempting to prevent a resource from delivering multiple services. Specifically, the rule prevents ‘any resource’ from delivering multiple reliability services, even if such services can be delivered simultaneously and incrementally (in line with Rule 12). While this is an improvement, as noted, from the original Staff Proposal, which categorically prohibited even time-differentiated MUAs from providing two different reliability services, the restrictions to simultaneous MUAs remain too severe. Instead, CESA recommends that Rule 6 be modified as follows:

~~“Priority means that a single storage resource may not contract for two or multiple services from the same capacity in a single, or multiple, domains, over the same or overlapping time intervals for which the resource is committed to perform or be available. The storage provider must not enter into reliability service obligation(s) such that the performance of one obligation renders the resource from being unable to perform the other obligation(s). An exception for resource adequacy services is noted in Rule 7, below.”~~

Rule 6, as written, seems counter to the purpose and intent of this proceeding and AB 2514 in that it expressly prohibits workable simultaneous MUAs in some instances. Amending Rule 6 as shown above allows for Rule 7 to be removed and greatly simplifies the framework to unleash viable and valuable MUAs.

Importantly, Rule 6, as written, may disallow some *existing* resources, further illustrating how it is too restrictive. To illustrate why Rule 6 is problematic, consider these two examples:

Example #1: Consider a case where a utility solicits energy storage resources, among other resources, for distribution deferral services. A new energy storage resource can be deployed in the target area and dispatched to perfectly address the utility’s need. The dispatch may also align with the must-offer obligation (“MOO”) period for System Resource Adequacy (“RA”). The energy storage asset can thus provide RA services, which were not available prior to the installation of the energy storage resource, while perfectly addressing the distribution deferral need. The needs are completely complementary and would otherwise be solved by two different resources. It seems unreasonable to restrict such a new energy storage device to providing one or the other service, when both services can be provided simultaneously where dispatch profiles align.

Example #2: Next, consider the case where a resource is contracted to provide black-start (as a transmission service) yet also provides RA. CESA understands that some wholesale resources actually do this today, counting the very same megawatts of RA towards a contracted black-start transmission service. Importantly, contracting for black-start service also may have

occurred well after the resource was built and operating, highlighting how the concept of incrementality can be overly restrictive if not contextualized to the MUA. In this instance, the resource may have changed nothing about its dispatch or RA availability, yet received a new fairly-earned value stream, showing that requiring something to be new to be incremental can be unreasonable in some instances.

As these examples show, Rule 6 is unreasonably restrictive in that it would disallow some resources operating today to provide multiple services simultaneously. The intent of the MUA Framework should be to authorize reasonable value creation and delivery from MUAs. Rule 6 runs contrary to this intent and unreasonably *limits* value creation from MUAs. CESA understands that Rule 6 is designed to address the broad concern that a simultaneous MUA would sign up to address a reliability service yet would then fail to do so *for economic reasons*. This belief may be driving discriminatory rules specific to energy storage while also duplicating more normal controls reflected in contracts, performance requirements, or other stipulations reflected in Rules 9, 11, and 12. These other controls are sufficient for other resources and logically should be sufficient for energy storage MUAs.

**B. Rule 8 overly restricts multiple-use applications and should be revised.**

Similar to the problems documented above with Rule 6, Rule 8 undermines the value and intent of an energy storage MUA, leaving value on the table inappropriately. Specifically, and perhaps redundantly with Rule 6, Rule 8 prohibits a single unit of energy storage capacity from providing two reliability services, even if complementary, at the same time. Rule 8 does this by expressly preventing the contracting of the same MW of capacity at the same time for any two reliability services. Rule 8 also provides safeguards for capacity-differentiated MUA concepts. The above examples apply again to illustrate that this rule is restrictive and inefficient.



CESA suggests the following changes to Rule 8:

“If using different portions of capacity to provide services, storage providers must clearly demonstrate when contracting for services both the total capacity of the resource, with a guarantee that a certain, distinct capacity be dedicated and available to the *capacity-differentiated* reliability services ~~whether or not the individual devices within an aggregated resource will always be used to provide it.~~”

**C. Rule 10 is unreasonable and should be Stricken in its entirety.**

Rule 10 requires special disclosures and enacts barriers to energy storage MUAs that are harmful and contrary to AB 2514. Rule 10 should be stricken in its entirety because, while it seeks to ensure that ratepayers benefit from MUAs, it does this by enforcing unusual, exceptional, or problematic disclosures about MUAs and by forcing utilities to develop extra (punitive) considerations about MUAs competing in solicitations. These steps are counter-productive and overlook how utilities already procure on the basis of ‘least-cost best-fit’. MUAs are well-suited to ‘win’ in competitive solicitations when they can bid *lower* in the solicitation due to the additional revenue streams. If the bid is not low enough, the resource risks losing in the solicitation. This competitive process alone disciplines the resource to bid low, but the utility should only evaluate bids and other relevant or approved factors, not confidential and unnecessary information on other revenue streams. This holds despite the amendments to Rule 10 made in the latest proposal compared to the previous one. The stated intent of Rule 10 – *i.e.*, to prevent windfall profits to energy storage developers – also seems to go beyond the reasonable scope or mandate of the Commission or the utilities in that it appears to be an attempt to regulate the returns that energy storage developers can earn through the provision of multiple services.

**D. Rule 11 is not needed.**

Rule 11 seems to indicate that some reliability services may have different regulatory or contractual bodies and that the applicable rules and contracts from those bodies should be

followed. To CESA, this rule expresses a level of concern about the performance of MUAs that likely exists with any service or infrastructure contract. In the end, Rule 11, as written, amounts to a requirement that contract law be followed. While CESA agrees with this premise, it need not be codified here. CESA thus concludes that Rule 11 is not needed.

#### **IV. THE COMMISSION SHOULD AFFIRM SUPPORT FOR DUAL PARTICIPATION IN PROGRAMS, WHERE REASONABLE, WITH CLEAR GUIDING PRINCIPLES.**

As the Commission finalizes its framework for MUAs, it should also include guiding principles regarding dual participation in programs. This is important because many MUAs seek to stack benefits and the ability to capture complementary program incentives may be key to MUA viability and to providing customer benefit. This guidance will also inform any utility evaluation and responses to MUAs, hopefully avoiding any unreasonable disputes or uncertainty. With MUAs, this forward-looking vision and guidance will also provide more long-term growth. CESA does not believe the current MUA framework sufficiently clarifies that dual-participation is reasonable and an important part of stacking benefits.

CESA's recommends the following dual participation guiding principles:

- **Dual Participation:** Participation in any Demand Response, Energy Efficiency, or grid service program should not disqualify a customer from participation in any other rebate, incentive, or credit provided by a utility or governmental program, so long as the capacity is not unreasonably double-counted.
- **Single Service Accounts:** Individual service accounts should be allowed to participate in multiple programs, as long as the above principle is met.

Leaving value on the table can occur if dual participation in select programs is not allowed. This concept applies clearly, for instance, when seeking dual-participation in technology development and deployment programs like the SGIP or ADR programs yet also in grid support programs. In these cases, the technology deployment program functions effectively

like a tax credit, highlighting how unreasonable it would be to suggest that a grid support program participant should be prevented from bringing costs down through other program participation. Many other dual or multi-program participation combinations also can be reasonable and should be allowed. With clear affirmations about dual participation, the CPUC can mitigate uncertainty or delays in the utility review and approval process while supporting technology deployments and in line with program goals.

V. **THE PROCEEDING SHOULD NOT BE CLOSED BECAUSE THIS PROCEEDING IS NEEDED TO ADDRESS EXISTING OR EVENTUAL MATTERS RELATING TO ENERGY STORAGE PROCUREMENT AND POLICIES IN SUPPORT OF ASSEMBLY BILL 2514.**

CESA is concerned that many energy storage rules will require further consideration and that some work remains to be done. The premise of AB 2514 was to reduce barriers to energy storage solutions and deployments and the availability of a proceeding specifically focused on energy storage rules and procurements is key to achieving this goal. CESA believes it is premature to close the proceeding without having some ready vehicle to address energy storage matters. Energy storage remains a *de minimis* part of the grid. The California Independent System Operator (“CAISO”) Balancing Area has generation capability in excess of 60,000 MWs, yet the energy storage procurement target stands at a comparatively small 1,325 MW, amounting approximately 2% of the CAISO portfolio. As energy storage resources grow in market share and in services provided, further adjustments to rules may be needed. In particular, many of these MUA rules are cutting edge and can be further informed and tuned based on experiences with actual deployments. A proceeding should allow for appropriate consideration of any barriers or issues.

While D.17-08-012 was issued to extend the statutory deadline in this proceeding to address MUA issues, there are still issues related to implementing the MUA Framework across

other proceedings such as the Integrated Resources Planning (“IRP”) proceeding. As energy storage procurements occur in the IRP Plans of each of the different load-serving entities (“LSEs”), the MUA Framework should be applied fairly and consistently across all LSEs. There are several other issues in the proceeding that have still yet to be addressed. For example, D.13-10-040 was issued that directed a comprehensive evaluation of the Energy Storage Procurement Framework to be conducted in 2016 and every three years thereafter. The Consistent Evaluation Protocol (“CEP”) will need to be revised as new rules and regulations from this MUA Framework impact the valuation of energy storage in competitive solicitations. CESA also notes that the Commission still needs to publish its evaluation of the Energy Storage Procurement Framework as “progress towards market transformation and learnings from the collection, analysis, and reporting of energy storage operational data...[become] available.”<sup>2</sup> Additionally, the Commission may need to further consider bulk energy storage resources and procurement structures, separate from any procurement ‘needs determination’ or Reference System Plans developed in the IRP proceeding. In compliance with AB 33 passed in 2015, the Commission will need to study the benefits and value of bulk energy storage resources. Finally, in a June 29, 2017 California Energy Commission (“CEC”) workshop, several outstanding issues tied to the Energy Storage Roadmap were highlighted – some of which are being addressed in other proceedings but some of which may require an energy-storage-specific proceeding to address issues that do not have a perfect home in any of the other proceedings.<sup>3</sup>

CESA appreciates the hard and enduring work of the Commission and its staff. While the state has come far on energy storage rules, deployments, and operations, the continued small

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<sup>2</sup> D.17.04-039, p. 28.

<sup>3</sup> *Energy Storage Roadmap Workshop Overview*, presentation by Rachel McMahon of CPUC at the June 29, 2017 CEC Workshop. [http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-12/TN219951\\_20170628T085456\\_Energy\\_Storage\\_Roadmap\\_Workshop\\_Overview.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-12/TN219951_20170628T085456_Energy_Storage_Roadmap_Workshop_Overview.pdf)

number of energy storage deployments highlights how more rules and consideration may be needed.

**VI. CONCLUSION.**

CESA appreciates the opportunity to submit these comments and looks forward to further collaboration with the Commission, utilities, and other stakeholders in this proceeding. MUAs should be leveraged smartly to provide benefits to the electric system and to ratepayers while also stimulating and growing our energy storage tool-kit and capability set. California is leading the way in energy storage, and CESA salutes this important leadership.

Respectfully submitted,



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