

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Pursuant to Assembly Bill
2514 to Consider the Adoption of Procurement Targets
for Viable and Cost-Effective Energy Storage Systems.

R.10-12-007
Filed December 16, 2010

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO ADMINISTRATIVE LAW JUDGE'S RULING ENTERING DOCUMENT
INTO RECORD AND SEEKING COMMENTS**

Donald C. Liddell
DOUGLASS & LIDDELL
2928 2nd Avenue
San Diego, California 92103
Telephone: (619) 993-9096
Facsimile: (619) 296-4662
Email: liddell@energyattorney.com

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	THE COMMISSION SHOULD REJECT SCE’S PROPOSED DEFINITION OF THE TERM “BARRIERS” BECAUSE ITS ADOPTION WOULD BE COUNTERPRODUCTIVE.....	2
III.	THE COMMISSION SHOULD PLACE NO WEIGHT ON SCE’S MISTAKEN INTERPRETATION OF CESA’S PRESENTATION REGARDING PROCUREMENT TARGETS.....	3
IV.	CESA URGES THE COMMISSION TO BEAR IN MIND THE IMPORTANT DISTINCTION BETWEEN PLANNING CAPACITY AND OPERATING CAPACITY IN THE CONTEXT OF THIS PROCEEDING.....	4
V.	THE COMMISSION SHOULD EVALUATE WAYS TO CONSIDER ENERGY STORAGE WITHIN THE CONTEXT OF CALIFORNIA’S EXISTING RENEWABLES PROCUREMENT PROCESSES.....	5
VI.	THE COMMISSION SHOULD ADVOCATE FOR EXPRESSLY INCLUDING ENERGY STORAGE IN THE LOADING ORDER.....	6
VII.	THE POTENTIAL ROLE OF ENERGY STORAGE IN DISTRIBUTION SYSTEM PLANNING REQUIRES MORE EVALUATION.....	7
VIII.	CONCLUSION.....	7

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Pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission’s (Commission”), and *Administrative Law Judge’s Ruling Entering Documents Into Record and Requesting Comments*, issued July 21, 2011 (“ALJ’s Ruling”) the California Energy Storage Alliance (“CESA”)¹ respectfully submits these reply comments to Opening Comments submitted by parties in response to the ALJ’s Ruling.

I. INTRODUCTION

CESA addresses these reply comments to the Opening Comments of Southern California Edison Company’s (“SCE’s Comments”) because SCE’s Comments provide a useful framework for refuting a number of “factoids” that are present in SCE’s Comments, as well as the Opening Comments of several other parties.² SCE’s Comments also merit reply because they make numerous mischaracterizations of CESA’s Presentation,³ and demonstrate significant misunderstandings concerning CESA’s recommendations that could have significant negative

¹ The California Energy Storage Alliance consists of A123 Systems, Applied Intellectual Capital/East Penn Manufacturing Co., Inc., Beacon Power Corporation, CALMAC, Chevron Energy Solutions, Debenham Energy, Deeya Energy, Enersys, EnerVault, Exide Technologies, Fluidic Energy, General Compression, Greensmith Energy Management Systems, HDR, Inc., Ice Energy, International Battery, Inc., LG Chem, LightSail Energy, Inc., MEMC/SunEdison, Powergetics, Primus Power, Prudent Energy, RedFlow, RES Americas, Saft America, Inc., Samsung SDI, SANYO, Seeo, Sharp Labs of America, Silent Power, Sumitomo Electric, SunPower, Suntech, Sunverge, SustainX, Xtreme Power, 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://www.storagealliance.org>.

² The term “factoid” was coined by Norman Mailer to refer to false propositions of fact that are repeated so frequently in common parlance that they are eventually treated as if they were true simply by the fact of their public repetition in a variety of contexts.

³ *Tackling Barriers to Entry in Energy Storage*, June 28, 2011.

impact on the ultimate shape and course of this proceeding.⁴ CESA notes the few instances in which the Opening Comments filed by other parties are in agreement with positions expressed in SCE's Opening Comments.⁵

II. THE COMMISSION SHOULD REJECT SCE'S PROPOSED DEFINITION OF THE TERM "BARRIERS" BECAUSE ITS ADOPTION WOULD BE COUNTERPRODUCTIVE.

SCE's Comments begin by asserting *ex cathedra* that "[p]roperly defining 'barriers' will help ensure that parties communicate and are understood in a consistent manner. SCE defines barriers as "*regulatory or legal impediments to a storage device's ability to compete against other comparable resources or market products.*"⁶ The ALJ's Ruling has not asked SCE for an abstract definition of "barriers and impediments" (ALJ' Ruling, p.4), because to try to manufacture a generic term out of thin air is an idle exercise. Rather, the Order Instituting Rulemaking in this proceeding ("Storage OIR") quotes with approval the unabashedly functional approach to barriers adopted by the Legislature at Section 1(f) of AB 2514: "There are significant barriers to obtaining the benefits of energy storage systems, including inadequate evaluation of the use of energy storage to integrate renewable energy resources into the transmission and distribution grid through long-term electricity resource planning, lack of recognition of technological and marketplace advancements, and inadequate statutory and regulatory support."⁷

As noted (i) the Storage OIR quotes AB 2514 §1(f) with full approval, (ii) the Scoping Memo⁸ makes no mention of encouraging parties to attempt to narrow the scope of the proceeding by unilaterally using their own definitions,⁹ and (iii) no party has suggested that the notion of spending time on defining "barriers" in this proceeding might have value. Public Utilities Code §2835, the codified definitions section of AB 2514, *does* provide a number of

⁴ CESA is authorized by Beacon Power to reply on its behalf in each instance where SCE refers to "CESA and Beacon Power" in SCE's Opening Comments, and Beacon Power concurs with CESA's response to SCE in each such instance.

⁵ See, footnote 13, and footnote 14, *infra*.

⁶ SCE's Comments, p. 5.

⁷ Storage OIR, p. 2.

⁸ *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge*, issued Mar 31, 2011.

⁹ See SCE's Comments, p. 28: "As noted in Section II, SCE defines barriers as regulatory or legal impediments to a storage device's ability to compete with other comparable resources or market products. The workshop presentations identified a few barriers that do not satisfy this definition of barriers. As such, SCE has excluded these from its list of barriers in Appendix A."

definitions, but the Legislature chose *not* to include a definition of “barriers.” There is no good reason why the functional approach chosen by the Legislature, endorsed by the Commission in the Storage OIR, and clearly used in the ALJ’s Ruling should now be rejected in favor of SCE’s proposal to spend time on defining a concept that is clearly is not a helpful exercise.

The Commission is aware that SCE proposed an identical abstract definition approach in the Smart Grid proceeding¹⁰, where the Assigned Commissioner responded in its Scoping Order¹¹ as follows: “The proceeding will not develop a “definition” of Smart Grid. A Smart Grid is not a policy destination, but a policy direction that subsumes a host of related activities that will evolve over time and as technology develops. A static definition of “Smart Grid” at this nascent stage may hinder the Commission’s ultimate efforts to craft policies. To this end, the functional definition of Smart Grid as contained in EISA [Energy Independence and Security Act of 2007] seems a more prudent approach at this time when the concept is new and broad.” (Scoping Order, p. 12). The logic quoted from the Smart Grid proceeding Scoping Memo is equally apt here, and the Commission should accordingly reject SCE’s attempt to unilaterally narrow the scope of this proceeding, and advocate for an academic waste of time.

CESA does, however, agree with SCE that the Commission should focus on barriers that fall within the Commission’s jurisdiction. Further, CESA also supports the “seven potential issues to greater storage adoption”¹²

III. THE COMMISSION SHOULD PLACE NO WEIGHT ON SCE’S MISTAKEN INTERPRETATION OF CESA’S PRESENTATION REGARDING PROCUREMENT TARGETS.

SCE incorrectly asserts that CESA advocates for mandating energy storage procurement targets with little regard for assessing viability or cost-effectiveness in violation of AB 2514.¹³ In placing the issue of utility procurement in context, CESA’s Presentation accurately states that AB 2514 requires the Commission “to determine appropriate targets *if any* for each load-serving entity to procure viable and cost-effective energy storage systems (Slide Number 2). SCE’s

¹⁰ R.08-12-009.

¹¹ *Scoping Memo and Ruling of Assigned Commissioner*, issued May 1, 2009.

¹² SCE’s Comments, p. 3.

¹³ SCE’s Comments, pp. 4 and 13. DRA’s Opening Comments inexplicably draw the same mistaken inference, at p. 4.

clearly misinterprets the subject heading “Recommended Public Policy” used in used in CESA’s Presentation (Slide Number 5) into an unqualified statement by CESA that AB 2514 mandates procurement targets. CESA’s specific recommendation on slide 5 was to ‘develop procurement targets *per AB 2514*’ and further, that any such targets should be evaluated and developed at the application level (Slide Number 6). CESA has been advocating since the beginning of this OIR for the evaluation of procurement targets pursuant to the requirements of AB 2514 ...at the application level; which is in strong support of SCE’s filed comments and recommendations. For further clarity, it is worth stating in this record that CESA expects to collaborate with all utilities in an informed and reasoned development of procurement targets, if any, under this proceeding. CESA also notes that it generally does support procurement targets, as a broad policy tool as the procurement targets imposed on load serving entities by California’s Renewables Portfolio Standard program have proven quite effective to date. SCE’s statement that procurement mandates and subsidies are a blunt and ineffective tool for addressing legal and regulatory barriers is simply empty rhetoric.¹⁴ Bluntness is in the eye of the beholder, and in due course the Commission will make its own determination regarding procurement targets consistent with the Legislature’s direction in AB 2514.

IV. CESA URGES THE COMMISSION TO BEAR IN MIND THE IMPORTANT DISTINCTION BETWEEN PLANNING CAPACITY AND OPERATING CAPACITY IN THE CONTEXT OF THIS PROCEEDING.

SCE incorrectly asserts that CESA confuses the concepts of planning capacity and operating capacity.¹⁵ CESA strongly agrees with the importance of SCE’s distinction between planning capacity and operating capacity, and advocates that planning for deployment of energy storage should take these differences clearly and distinctly into account. CESA also appreciates and supports SCE’s recommendation that “protocols be developed and approved through the annual Resource Adequacy (“RA”) proceedings to allow storage devices that meet the relevant standards to participate”. CESA also clearly understands that the rules governing operating capacity or ancillary services markets are under the jurisdiction of the CAISO. It is for this very reason that CESA has been an active stakeholder in the CAISO’s Regulation Energy Management stakeholder process for the last two years. While the specific comments or source

¹⁴ SCE’s Comments p.15. *See also* PG&E’ Comments, p. 3; SDG&E’s Comments, p.4; and DRA’s Comments p. 3.

¹⁵ SCE’s Comments, p. 16.

of why CESA appears to be confused about the difference between RA and ancillary services markets is unclear, we will take this opportunity to clarify why these two topics were discussed concurrently during the workshop.

First, the primary issue facing grid storage today is the lack of long term, financeable revenue streams for storage assets. RA is a promising potential source of revenue for storage assets, and, they may they may be more attractive than the day ahead markets administered by the CAISO. While utilities can and do purchase ancillary services contracts on a similar time frame of less than 10 years – this is still an insufficient term for convincing equity and debt investors to invest in storage projects. What will still be required are longer term contracts and mileage payments which CESA expects to be addressed during the next Second Phase of the CAISO’s Renewable Integration and Market and Product Review. Ideally, energy storage system operators may contract with utilities or the CAISO for 20 years or longer as is currently employed in existing RPS procurement.

V. THE COMMISSION SHOULD EVALUATE WAYS TO CONSIDER ENERGY STORAGE WITHIN THE CONTEXT OF CALIFORNIA’S EXISTING RENEWABLES PROCUREMENT PROCESSES

Renewables procurement represents a promising long term (20 years or greater) contracting mechanism for the development of storage assets. CESA understands the purpose and structure of California’s Renewables Portfolio Standard (“RPS”) procurement processes, which we were developed years ago without consideration of how energy storage could be incorporated into the process to deliver higher value renewables that are more easily integrated into the grid. For example, time of delivery factors, which SCE argues compensate renewable generators for capacity, were developed without considering the predictability or dispatchability of renewable energy delivered on peak with energy storage. CESA recommends that these factors be re-evaluated in light of the potential to achieve a greater percentage of renewable generation that can be predictably firmed, shaped or dispatched with energy storage.

CESA disagrees with SCE that developing ways to appropriately value the services storage integrated with renewable energy would provide would create inequitable cross subsidies across load serving entities. If developers were *appropriately awarded* for including energy storage in their renewable project development, then the value of their resulting product would increase for all ratepayers and potentially some of the intermittency issues associated with the underlying renewable resource maybe mitigated. The key is to develop appropriate awards for

developers, commensurate with the increased value provided by the energy storage system. CESA understands and appreciates the fact that ‘the task of maintaining grid reliability is assigned to the CAISO, which currently fulfills this role through the procurement of ancillary services’ (SCE p. 22). CESA is not advocating that utilities “be required” to incorporate storage into its renewable procurement, rather, CESA is advocating that the value provided by storage be valued appropriately in the existing procurement process. To summarize, initial sources of value by integrated storage with renewables under renewable procurement could be as follows:

1. Capacity value that is not already included in the existing time of delivery factors
2. Reduction of intermittency associated with the underlying variable energy resource (this exploration could occur concurrently with existing FERC activity on the same topic), therefore reducing the quantities of ancillary services that CAISO must purchase, benefitting all ratepayers
3. Interconnection of the renewable resource – energy storage may enable better utilization of existing assets for congestion management, and or deferral/better utilization of planned T&D upgrades.

VI. THE COMMISSION SHOULD ADVOCATE FOR EXPRESSLY INCLUDING ENERGY STORAGE IN THE LOADING ORDER.

SCE incorrectly asserts that energy storage has no place in California’s Loading Order, which is an essential element of California’s Energy Action Plan.¹⁶ In doing so, SCE justifies its position on the familiar concept that energy storage can be everywhere and nowhere in a variety of regulatory contexts, including the Loading Order. It is for this express reason that energy storage should be treated comparably to demand response (“DR”). Similarly DR can be assist with a variety of applications such as intermittent renewable integration, and end user TOU rate optimization. Energy storage is a valuable asset class that can improve overall electric power system efficiency, much in the same way that DR can improve overall system efficiency by reducing super peaks in demand and managing load as a balancing resource. CESA stands by its recommendation that energy storage be on a par with DR when California’s Energy Action Plan, or its functional equivalent or successor policy statement, is next updated to reflect evolution of California’s regulatory policies. As a key regulatory agency in development of the multi- agency statement of California’s energy policies it is CESA’s position that the Commission should

¹⁶ See, http://www.energy.ca.gov/energy_action_plan/index.html

pursue a proactive role in advocating for accelerated deployment of energy storage systems in the Loading Order.

VII. THE POTENTIAL ROLE OF ENERGY STORAGE IN DISTRIBUTION SYSTEM PLANNING REQUIRES MORE EVALUATION.

SCE apparently misunderstands the context and intent of CESA’s slide Number 5, which includes the following recommendation: “Ensure holistic and comprehensive view of all benefit streams, including system benefits (*e.g.* reliability) for cost benefit methodology development. “ This recommendation was stated as a broad policy objective. CESA did not intend to imply that developers, or any third party, should receive specific payments for providing increased grid reliability at the distribution level. Rather, CESA identified increased grid reliability as a value that energy storage provides, and one that should be accounted for when developing a comprehensive cost-benefit methodology. There is no question but that energy storage can increase system reliability at the distribution level. If distribution system planners give proper weight to the increase in reliability provided by energy storage, more energy storage will clearly be deployed.

VIII. CONCLUSION.

CESA appreciates this opportunity to respond to submit comments to the ALJ’s Ruling, and looks forward to working with the Commission and other stakeholders throughout the entire proceeding.

Respectfully submitted,



Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

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