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	Rulemaking 10-12-007 (Filed December 16, 2010)

COMMENTS OF THE LARGE-SCALE SOLAR ASSOCIATION AND SOLAR ENERGY INDUSTRIES ASSOCIATION ON PROPOSED DECISION ADOPTING ENERGY STORAGE PROCUREMENT FRAMEWORK AND DESIGN PROGRAM

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In accord with Rule 14 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") the Large-Scale Solar Association and the Solar Energy Industries Association[1] (collectively, the "Joint Solar Parties"), comment on the Proposed Decision Adopting Energy Storage Procurement Framework and Design Program issued in the above captioned proceeding on September 3, 2013 ("Proposed Decision" or "PD").[2]

I. INTRODUCTION

The Joint Solar Parties appreciate the Proposed Decision's commitment to pursue close coordination among the various Commission proceedings addressing issues relevant to energy storage and urge the Commission to make coordination of storage issues across proceedings a

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1 The comments contained in this filing represent the position of SEIA as an organization, but not necessarily the views of any particular member with respect to any issue.

2 The Joint Solar Parties understand that the PD and Storage Framework are guided by AB 2514; however the Joint Solar Parties recommend that the Commission consider an expansion of the guiding principles to include a broader set of benefits and attributes of storage, including grid resiliency benefits, as well as the ability to reduce criteria pollutants in addition to GHG emissions reductions.

priority.[3] As noted in the PD, numerous proceedings at various state agencies are presently examining a range of policy and deployment options regarding the role of storage in providing vital grid services and integrating variable energy resources. Currently no fewer than ten procurement, planning, and product definition proceedings exist at the Commission and the California Independent System Operator ("CAISO") that touch upon various aspects of storage valuation. These proceedings can aid in the realization of storage as a cost-effective and prudent investment in grid reliability, flexibility and potential emissions reductions. However, in order to promote this objective and ensure the success of the Energy Storage Procurement Framework and Design Program ("Storage Framework") these proceedings must be able to clearly articulate the benefit streams of associated with storage attributes. The Joint Solar Parties, therefore, encourage the Commission to facilitate this coordination by modifying the Storage Framework to establish transparent and flexible storage valuation methodologies that (a) recognize the ability of storage to provide multiple functions and services, (b) properly value those applications which are aligned with the guiding principles of the PD, including supporting grid reliability and deeper penetration of renewables, and (c) describes how those methodologies should be implemented in order to promote comparable and credible treatment of storage across proceedings.[4]

II. STORAGE RESOURCES PROCURED THROUGH OTHER PROCEEDINGS SHOULD BE TREATED EQUALLY.

The introduction of storage procurement targets is a significant step toward market transformation, in terms of spurring technology development, enabling deeper renewable energy penetration and potentially enabling the achievement of lower greenhouse gas emissions.

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[3] PD at pp. 62- 63.

[4] The Joint Solar Parties' comments are largely focused on coordination related to distribution and transmission connected storage resources but are supportive of the PD's prohibition of shifting MW out of the customer-connected grid domain. This restriction should help to facilitate and stimulate market transformation necessary for small-scale projects.

However, procurement through "Storage RFOs" arising from the proposed Storage Framework should not be favored over procurement of storage resources through other means such as the Renewables Portfolio Standard ("RPS"), Resource Adequacy ("RA") or Long Term Procurement Planning ("LTPP") solicitations. With respect to storage procured through these other procurement mechanisms, the PD states that this storage will "count towards the procurement targets after they have been *operational* one year." In contrast, procurement from Storage RFOs will count against targets in the year *procured*.[5] Not only does this incongruity devalue the storage procurement made pursuant to alternative authorization, but this element of the proposed Storage Framework will make it difficult for the utilities to plan and coordinate storage procurement across various proceedings.

As noted above, the Commission has made it clear that coordination among the various procurement mechanisms "to ensure consistency in the treatment of energy storage and to reduce market barriers" is a desired goal. The PD's proposed disparate treatment of storage resources procured by means other than the Storage RFOs runs directly counter to this goal and may generally impede the procurement of storage that meets RPS, RA or local reliability needs.[6]

Accordingly, in the interest of clarity and coordination across proceedings as well as equal treatment, the Proposed Decision should be modified such that storage resources *procured* pursuant to Commission authorizations in other proceedings may be counted toward each utility's procurement targets for its upcoming Storage RFO solicitation cycle.[7] This will require careful coordination of the timing of the various solicitations and their approvals, but will allow

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5 PD at p. 33 and Appendix at 3 (2.d.). *Emphasis* added.

6 PD at p. 63.

7 For example, a storage resource procured in 2015 within another proceeding would count against the 2016 target. If a storage resource is procured subsequent to the finalization of a Storage RFO solicitation plan approval, then it would count against the targets from the subsequent Storage RFO solicitation cycle.

each utility to plan for and state the desired capacity for procurement in a Storage RFO solicitation, with more certainty and without demoting procurement from other proceedings.

III. THE PD SHOULD ALLOW STORAGE CO-LOCATED WITH RPS PROJECTS TO PARTICIPATE IN MEETING THE STORAGE TARGETS AND COMMIT TO INFORMING CHANGES IN OTHER PROCEEDINGS TO ENABLE THAT PROCUREMENT.

Barring changes to the procurement structure in other proceedings, the PD's apparent prohibition of procurement of energy storage projects outside of a competitive solicitation may inappropriately foreclose the opportunity for storage co-located with RPS projects to participate in meeting the storage *targets*.[8] For example, the RPS RFOs are not currently well equipped to value storage co-located with RPS projects and the Storage RFOs will likely have difficulty appropriately considering RPS eligible resources.[9] This may leave these projects without an appropriate RFO into which to bid. Bilateral contracting could address this issue and has long been a component of procurement in California, especially for high value, complex transactions, which may not easily conform to an RFO framework.

Accordingly, the Joint Solar Parties urge that the PD be modified to ensure that these projects can participate in meeting the storage targets, either by (a) clarifying that there is no prohibition against bilateral contracts from counting towards the storage targets, or (b) committing to take action in the RPS proceeding to update the solicitation protocols and *pro forma* contracts for the 2014 RPS solicitation cycle to incorporate procurement of energy storage co-located with RPS projects. Changes to the solicitation protocols and the *pro forma* contracts are necessary to allow for various storage configurations and services, such as ancillary services, bulk storage /energy time shifting, and grid charging.

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8 PD at p.52.

9 The same goes for participation of storage co-located with renewable resources in meeting RA needs.

Changes to RPS procurement will also be necessary to incorporate a storage valuation methodology. This effort should include the development of a transparent and flexible methodology that can evaluate and quantify multiple types of storage attributes, including longer-duration storage applications. The Joint Solar Parties recommend that the development of the storage valuation methodologies be undertaken in a transparent process (as described below) and as a joint effort across proceedings in advance of the initial storage procurement cycle, as set forth in the PD, and in alignment with the RPS procurement cycle. The establishment of clear metrics and protocols are essential in order to appropriately value renewable energy projects co-located with storage that seek to participate in RPS procurement. [10]

Without the changes described above or removal of the prohibition on bilateral contracts, the PD may preclude procurement of storage co-located with RPS projects and further raise market barriers for these projects. Furthermore, if issues related to co-located projects are not addressed and properly coordinated, it is unclear how the Storage Framework will be able to meet its stated objectives of "optimizing the grid, integrating renewables, and/or reducing greenhouse gas emissions."[11] While the target set for the Storage Framework may not be explicitly linked to system needs,[12] the procurement of storage resources is most likely to be able to achieve these objectives when procured in the context of the RPS, RA, LTPP or other proceedings intended to meet system needs.

Finally, the PD should clearly delineate how storage procurement targets could be incorporated into both the future RPS procurement plans and in Long-Term Procurement

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10 The storage valuation methodology in the RPS context, should include recognition of a proposed RPS project's benefit to a utility's total cost of service, including generation, transmission and distribution costs, arising from the project's storage capabilities.

11 PD at p.9.

12 *Id.* at pp. 22 and 24-25

Planning efforts. As noted previously, *procured* storage assets via various procurement vehicles should be incorporated into planning analyses and counted against the proposed storage procurement targets, with the knowledge that feedback loops between the inter-related proceedings should enable a grid populated by greater amounts of variable resources to operate in a reliable, cost-effective manner.

IV. THE PD SHOULD CLEARLY ESTABLISH A PROCESS FOR STAKEHOLDER INPUT IN THE DEVELOPMENT OF THE BID VALUATION METHODOLOGIES.

Providing all stakeholders the opportunity to inform the process of establishing a common evaluation protocol is critical to cost-effectively — and adequately — meeting the proposed storage targets. However, as currently drafted, the PD does not clearly define the role of stakeholders in developing the valuation methodologies that the investor-owned utilities ("IOUs") will rely on for bid evaluation purposes. Rather, the PD appears to grant the IOUs — with input from Energy Division staff — sole responsibility for the development of the optimal cost-effectiveness methodology.

The PD states that "[the Commission] shall allow the IOUs to propose their own methodology to evaluate the cost and benefits of bids… Following adoption of this decision, the IOUs shall confer with Energy Division Staff to establish the common evaluation protocol to be used in the bid evaluations."[13] The Joint Solar Parties have not determined what the anticipated role of stakeholders is in the initial development stages of the cost-benefit protocol and we are concerned that, absent additional specificity, stakeholders will not have an opportunity to provide input on the valuation approach until after each IOU has filed an application containing a proposal for their first energy storage solicitation. Restricting stakeholder input prior to

[13] PD at p. p.59.

submission of each IOU's application may result in a scenario where the IOUs are invested in a specified valuation approach, and substantive changes may not be feasible.

Accordingly, the Joint Solar Parties recommend that the PD be modified to provide for the creation of a working group to inform the IOUs' methodology-development efforts before they submit their applications. Establishing a working group of this nature will help ensure that reasonable and fully-informed protocols are developed.

V. CONCLUSION

The Joint Solar Parties appreciate the opportunity to provide these opening comments on the Proposed Decision and urge the Commission to make the changes recommended above.

Respectfully submitted this September 23, 2013, at San Francisco, California,

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