

**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 (AYK)
(Filed December 16, 2010)

**REPLY COMMENTS OF SIERRA CLUB CALIFORNIA AND THE CALIFORNIA
ENVIRONMENTAL JUSTICE ALLIANCE ON ASSIGNED COMMISSIONER'S
RULING PROPOSING STORAGE PROCUREMENT TARGETS AND MECHANISMS**

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Pursuant to the Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms ("ACR"), Sierra Club California ("Sierra Club") and the California Environmental Justice Alliance ("CEJA") respectfully submit the following reply comments on the ACR.

INTRODUCTION

Sierra Club and CEJA recommend that the Commission stay the course on proposing procurement targets for energy storage. These targets should be made mandatory, demonstrating that there is no question that California will procure enough energy storage to transform the energy storage market. To facilitate the Governor's Clean Energy Jobs Plan, the procurement targets should be increased to 3,000 megawatts by doubling the procurement targets in each of the buckets at each two year interval.

The ACR correctly resolves the fundamental debates that have occurred in the proceeding. Some parties continue to argue that procurement targets are unnecessary and that simply resolving market barriers will allow storage to develop in California. However, these comments offer only a firm belief that solely eliminating market barriers will create positive change; these comments provide no benchmarks, goal posts or timetables for deploying storage

in California. Other parties seek an end run around the procurement targets by recommending provisions in the decision that would provide off-ramps for up to one hundred percent of the procurement targets, which could make the program meaningless and unable to address the pressing need for market transformation in the energy storage sector. These comments fail to recognize that energy storage is a vital tool to bridge the gap between the old, fossil fuel based electric grid and the new, renewable energy centric electric grid. To achieve the ACR's three policy objectives of grid optimization to reduce fossil fuel dependence, renewable integration and greenhouse gas emission reduction, the Commission should adopt robust mandatory procurement targets that are narrowly tailored and have very limited off-ramps.

I. Procurement Targets Are Appropriate.

The proposed decision should make an explicit finding that procurement targets are appropriate. AB 2514 requires the Commission to consider procurement targets and to adopt targets if appropriate.¹ The Division of Ratepayer Advocates' ("DRA"), Calpine's and Jack Ellis's argument that procurement targets are not required by AB 2514 misses the point of the ACR.² The ACR explains that procurement targets are appropriate, basing targets on the "goal of market transformation."³ The procurement targets are designed "to help bring down market barriers, reduce costs, and increase scale of market penetration over time."⁴ In addition, the proposal structures market opportunities "so that energy storage can become a key operational component of California's energy system."⁵ The ACR and the record in the proceeding justify a

¹ Public Utilities Code § 2836(a)(1).

² Comments of Division of Ratepayer Advocates on the Assigned Commissioner Ruling on Storage Targets ("DRA"), pp. 1-2; Comments of Calpine Corporation on Assigned Commissioner's Ruling Proposing Storage Procurement Targets ("Calpine"), p. 2; Comments of Jack Ellis on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting ("Jack Ellis"), p. 5.

³ ACR, p. 3.

⁴ ACR, p. 5.

⁵ ACR, p. 6.

finding that procurement targets are appropriate.⁶ The Commission must adopt procurement targets found to be appropriate: “The commission shall adopt the procurement targets, if determined to be appropriate . . . by October 1, 2013.”⁷

The ACR’s three guiding principles for energy storage procurement identify the specific role that energy shall play in the grid: “optimizing the grid to avoid or defer investments in new fossil fuel-powered plants, integrating renewable power, and minimizing greenhouse gas emissions.”⁸ It is noteworthy that among the parties that addressed the guiding principles, there is broad agreement that the procurement targets should be based on the three guiding principles. In addition to Sierra Club and CEJA, a cross spectrum of parties from the California Independent System Operator (“CAISO”), to DRA, to the Army, to Friends of the Earth support using the guiding principles articulated in the ACR.⁹ The Consumer Federation of California (“CFC”) explains that “recent improvements in energy storage, coupled with changes in the electricity marketplace, indicate an emergence of and expanding opportunity for electricity storage as a cost effective electric energy complement.”¹⁰

The comments support the need for market transformation identified in the ACR. For example, the Interstate Renewable Energy Council (“IREC”) explains that

[a]n important link exists between distributed renewable generation and Energy Storage Systems (“ESS”), because the latter can provide a critical role in resolving the intermittent nature of the former and can effectively address many of the current challenges of accommodating higher penetrations on the utilities’

⁶ See, e.g. Opening Comments of Sierra Club California And the California Environmental Justice Alliance on Assigned Commissioner’s Ruling Proposing Storage Procurement Targets And Mechanisms (“Sierra Club and CEJA”), pp. 2-22.

⁷ Public Utilities Code § 2836(a)(2).

⁸ ACR, p. 2.

⁹ See, e.g., Comments of the California Independent System Operator Corporation on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets (“CAISO”), pp. 1-2; DRA, p. 2; The Federal Executive Agencies Comments on the Ruling Proposing Storage Procurement Targets and Mechanisms on behalf of the Army Initiatives Task Force (“Army”), p. 2; Comments on the Assigned Commissioner’s Ruling of Friends of the Earth (“FOE”), p. 2.

¹⁰ Opening Comments of the Consumer Federation of California on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“CFC”), p. 2 (citation omitted).

distribution systems of solar energy and other [distributed energy resources.] For these reasons, the June 10, 2013 ACR, which proposes to establish ESS procurement targets for California utilities, *offers California a path-breaking, first-in-the nation new policy direction* that could play a critical role in supporting the state's move to renewable energy. If adopted and implemented in the proper fashion, the targets proposed in the ACR can directly facilitate . . . increasing consumer access to renewable energy, and significantly buttress the policies of the State of California that favor a continuing and growing deployment of renewable resources, in particular on the distribution side of the electric system, and that will require a continuing reduction in the emissions of greenhouses gases ("GHG") in the state over the longer term.¹¹

Parties' arguments that energy storage procurement targets should be based on need from other proceedings ignores the reasoning in the ACR and the fundamental purpose of this proceeding.¹² For example, the California Wind Energy Association's ("CalWEA") arguments that other proceedings have not found need for energy storage are a red herring,¹³ because those proceedings do not focus on energy storage procurement. This proceeding was specifically created to evaluate the efficacy of energy storage procurement targets;¹⁴ no other proceeding has a similar mandate. MegaWatt Storage Farms ("MegaWatt") states that any coordination with the RPS would be unintentional, since this proceeding has not done a "needs analysis" for storage in the manner desired by MegaWatt.¹⁵ However, the guiding principles and the goal of market transformation represent a "needs analysis" and strengthen the argument for intentional collaboration with other proceedings. Procurement targets in this proceeding will remove the barriers that prevent cost-effective energy storage from creating beneficial value for procurement in other proceedings.

¹¹ Comments of the Interstate Renewable Energy Council, Inc. on the Assigned Commissioner's Ruling ("IREC"), pp. 1-2 (original emphasis).

¹² Comments of the California Wind Energy Association on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms ("CalWEA"), pp. 3-7; DRA p. 4.

¹³ CalWEA, pp. 3-7.

¹⁴ Public Utilities Code § 2836(a)(1).

¹⁵ Comments of MegaWatt Storage Farms, Inc. on the June 10, 2013 Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting ("MegaWatt"), p. 10.

To fulfill the mandate of AB 2514, the proposal correctly moves “forward with storage policy and deployment for the benefit of California,” supplementing activities in other proceedings.¹⁶ Since this proceeding is designed to address energy storage holistically, the Proposed Decision should advise other proceedings on how best to address energy storage. For example, the Long Term Procurement Proceeding, the one proceeding that set a procurement target for energy storage, set a “modest” 50 MW procurement target for energy storage resources, explaining that the additional action on energy storage depends on further decisions in the energy storage proceeding. The relevant decision states that “no decisions have been made concerning the viability, cost-effectiveness or public interest nature of energy storage technologies in [the energy storage proceeding]. If and when such action is taken, the role of energy storage technologies in the procurement process can be considered.”¹⁷ In the opening comments, Sierra Club and CEJA recommend that the targets picked in this proceeding be imported into the analysis in the Long-Term Procurement Proceeding (“LTPP”).¹⁸ Sierra Club and CEJA agree with the ACR that in the near-term the energy storage decision should move “in parallel” with LTPP and the Resource Adequacy proceedings.¹⁹ DRA, on the other hand, argues that this proceeding should not make decisions on energy storage need until after the completion of Tracks 2 and 4 of LTPP,²⁰ which will occur after the October 2013 statutory mandate of this proceeding.

Furthermore, the Governor’s Clean Energy Jobs Plan does create a “need” for storage. The Local Capacity Reliability Decision in LTPP states that “[u]nder California Governor

¹⁶ ACR, p. 6.

¹⁷ D.13-02-015, Decision Authorizing Long-Term Procurement for Local Capacity Requirements, p. 117.

¹⁸ Sierra Club and CEJA, p.11.

¹⁹ ACR, pp. 14-15.

²⁰ DRA, p. 4.

Brown's June 2010 Clean Energy Jobs Plan, approximately 3000 MW of energy storage would be added to the grid to meet peak demand and support renewable energy generation."²¹ To fulfill the purposes of the ACR's guiding principles, Sierra Club and CEJA recommend that the procurement targets should be significantly increased to at least 3,000 MW to support Governor Brown's Clean Energy Plan.²² This should be accomplished by doubling each increase in the targets.²³ This would create the necessary market transformation.²⁴

II. The Procurement Targets Should Be Mandates Based on Installed Storage.

In addition to Sierra Club and CEJA, several parties propose that the procurement be mandatory.²⁵ The California Energy Storage Association ("CESA") proposes a specific mechanism where procurement targets are based on installed capacity. Sierra Club and CEJA agree with CESA's recommendation "that the Commission ensure the integration of operational energy storage resources by designating installation targets two years after each procurement cycle target, at which point utilities must demonstrate grid-connected and operational energy storage resources with cumulative capacities representing prior procurement targets."²⁶ If storage is not mandatory, the LTPP planning assumptions will probably derate or ignore the capacity goals, and therefore plan new fossil fuel infrastructure that would incur either stranded costs and/or defeat the purpose of this proceeding and AB 2514.

²¹ D-13-02-15, p. 60.

²² See Sierra Club and CEJA, p. 11.

²³ Sierra Club and CEJA, p. 12.

²⁴ See Sierra Club and CEJA, pp. 14-16.

²⁵ Sierra Club and CEJA, pp. 9-11; FOE, p. 2; CESA, p. 7; Comments of Beacon Power, LLC on the Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting ("Beacon Power"), p. 8; Clean Coalition Opening Comments on Assigned Commissioner Ruling ("Clean Coalition"), p. 3; Joint Large-Scale Solar Association and Solar Energy Industry Association Comments and Response to Questions in Assigned Commissioner's Ruling ("LSA and SEIA"), p. 5.

²⁶ CESA, p. 7.

III. The Proposed Decision Should Reject Cost-Effectiveness Arguments that Undermine the Purpose of the Storage Targets.

There is more than enough evidence in the record for the Commission to find that the procurement targets are cost-effective for energy storage.²⁷ The results of the Electric Power Research Institute (“EPRI”) and DNV KEMA Energy & Sustainability (“KEMA”) studies show that the deployment of energy storage can be cost-effective. The assumptions underlying those studies were based on work groups that included the IOUs and CESA among other parties. Those assumptions provide an analytical basis for accepting the results of the studies. Some parties argue that these reports have not been finalized at the time of the ACR, but the reports can be finalized prior to the close of the proceeding and even if they are not finalized, the basic conclusions of the reports demonstrate cost-effectiveness for certain use cases and applications of energy storage. Southern California Edison’s (“SCE”) argument, that the results of these “may not be relied upon to support any finding of fact or to justify policy determinations for procurement targets,”²⁸ should be dismissed. SCE relies on ALJ Yip-Kikugawa’s ruling that applies to the cost-effectiveness of “specific energy storage projects,”²⁹ but not to the policy decisions related to the adoption of procurement targets.

Cost-effectiveness should not be used as a shield to undermine the purpose of the program and the procurement targets. PG&E, SCE and DRA all argue that there should be a cost-effectiveness off-ramp that allows the IOUs to procure no energy storage. If the Commission accepted this argument, future energy storage procurement would simply be a mirage that does not achieve any of the three objectives of the ACR. CFC, for example, argues

²⁷ See, e.g., *Utility Reform Network v. Public Utilities Com'n of State of Cal.*, 166 Cal.App.4th 522 (2008) 522, 536 (the Commission’s findings are subject to the substantial evidence standard).

²⁸ Opening Comments of Southern California Edison Company (U 338-E) on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“SCE”), p. 23.

²⁹ *Id.*; cf. Administrative Law Judge’s Ruling Denying Request for Evidentiary Hearings, Feb. 28, 2013, p. 2.

that there should be no off-ramps because off-ramps would undermine the program and prevent the state from reaping the benefits of deploying significant amounts of storage³⁰—making the off-ramp a self-fulfilling prophecy.

The procurement should be designed to promote the most cost-effective solutions and as such should only be subject to a narrowly tailored off-ramp, which allows some flexibility without undermining the overall goals.³¹ This approach is consistent with the RAM and other programs of the Commission, which simply defer to the next procurement cycle whatever is left over as shortfall due to the temporary off-ramp. The long term goals are preserved. Ensuring the maximum value of the storage procured can be accomplished through robust procurement buckets. CESA explains this in more detail: “Maintaining separation of procurement targets through these category buckets will lead to energy storage portfolio diversity, ownership model diversity, and stability in both markets and resource procurement planning. Within ‘buckets,’ CESA supports allowing [load serving entities (“LSEs”)] to have reasonable flexibility in determining the best applications and priorities for their customer bases.”³² The procurement mechanisms adopted by the Commission should focus on maximizing the value of each bucket. The Utility Reform Network (“TURN”) argues that there should be some flexibility in each bucket because it would be very hard to predict the precise optimal target.³³ Though this point makes sense, it is also important to maintain the integrity of the buckets to maximize the diversity of the storage. Sierra Club and CEJA propose upon a showing of specific local capacity need that a portion of each bucket can be transferred to another bucket in any procurement year.

³⁰ CFC, p. 6.

³¹ Sierra Club and CEJA, p. 28-29.

³² CESA, p. 4.

³³ Comments of The Utility Reform Network on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms (“TURN”), p. 3

IV. A Cost Cap Is Not Necessary.

Sierra Club and CEJA agree with CESA, Beacon Power, and other parties³⁴ that a cost cap is not necessary in this proceeding, and would present an additional barrier to developing the most beneficial, cost-effective storage possible. As MegaWatt states in its opening comments on the ACR, “[t]he experience California will gain is far more valuable than the cost of storage.”³⁵ In contrast, SCE makes the unsupported claim that “[r]ecent evaluations of the ACR’s proposed storage procurement program that it could cost to \$3 billion dollars with uncertain net benefits for customers.”³⁶ However, if energy storage is to provide real benefits through grid optimization, reducing the need for power plants, lowering greenhouse gas emissions, and integrating renewables, then the focus now should be investing in the benefits. Arbitrary cost caps could prevent the main benefits of the program, which are to transform the market for storage, reduce the cost, and realize the value of storage. Any cost cap established in this proceeding would be arbitrary, as nothing in the record suggests a need for a cost cap or provides information necessary for determining a cost cap.³⁷ Under an arbitrary cap, ratepayers would be forced to pay for underfunded projects without receiving the promised benefits. This directly contradicts DRA’s argument that a cost cap would benefit ratepayers.³⁸ Net benefits in relationship to costs, rather than absolute costs, should drive the energy storage procurement process, and will result in cost-effective storage that benefits ratepayers and the grid.

³⁴ Comments of Beacon Power, LLC, on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“Beacon Power”), p. 9; MegaWatt, p. 12; Opening Comments of the Consumer Federation of California on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“CFC”), p. 7; CESA, p. 22; Clean Coalition, p. 13.

³⁵ MegaWatt, p. 12.

³⁶ SCE, p. 5 (SCE provides no footnote or attribution for its claim) (emphasis in original).

³⁷ MegaWatt, p. 12.

³⁸ DRA, p. 10.

V. The Definition of the Type of Projects Included in the Procurement Targets Can Be Refined.

Sierra Club and CEJA continue to agree with the ACR's exclusion of pumped hydropower storage from the definition of energy storage for the purpose of setting these procurement targets, not blindly based on excluding one type of technology, but because of the policy consideration that conventional, large scale pumped hydro is already a large part of the California grid and faces a different set of barriers, including reliance on transmission projects and very long lead time for development. The Commission should reject the call of many parties to do otherwise.³⁹ However, the Commission should clarify this reasoning, and avoid unintentionally excluding other storage technologies that meet the criteria that "may have been demonstrated but are not yet generally deployed on the grid in California."⁴⁰

Moreover, contrary to some parties' assertions, the ACR's exclusion of pumped hydro storage is grounded in AB 2514. PG&E, SCE, IEP and Shell Energy suggest that the ACR should include pumped hydro storage, as the technology meets the statutory definition of energy storage.⁴¹ Similarly, the Nevada Hydro Company also asserts that, "AB 2514 places no such limitation on pumped storage."⁴² Nevertheless, these contentions limit the discretion AB 2514 provides to the Commission to address energy storage in the manner it sees fit whether by "appropriate" procurement targets or "refinement of existing procurement methods to properly value energy storage systems."⁴³ Both the Legislature and the ACR share the valid goal of

³⁹ Opening Comments of Shell Energy North America (US), L.P. on the Assigned Commissioner's Straw Proposal ("Shell Energy"), pp. 6-7; Pacific Gas and Electric Company's (U 39 E) Comments on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting ("PG&E"), p. 14; Comments of the Independent Energy Producers Association on the Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms ("IEP"), pp. 8-9; SCE, p. 6; Comments of The Nevada Hydro Company on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms ("Nevada Hydro"), p. 3.

⁴⁰ ACR, p. 5; *cf.* CESA, p. 6.

⁴¹ Shell Energy, p. 6; PG&E, p. 14; IEP, pp. 8-9; SCE, p. 6.

⁴² Nevada Hydro, p. 3.

⁴³ AB 2514, Section 2; *See also* Pub. Util. Code § 2836(a)(1).

ensuring the success of the emerging storage market, a focus that naturally does not include more “mature” technologies. SCE disagrees, contending that “maturity is only one of many barriers faced by emerging storage technologies.”⁴⁴ While true, SCE also recognizes that conventional pumped hydro faces a set of barriers which are different from “technologies that have not yet achieved widespread commercial operation.”⁴⁵ In focusing on the advancement of these energy storage technologies, the ACR properly recognizes that fully realizing the benefits of energy storage is not possible unless California promotes the development of energy storage to achieve levels of flexibility and scale that have so far not been attainable.

VI. The ACR Should Promote Coordination with the Renewable Portfolio Standard (RPS) Procurement Plans.

The Commission must connect procurement targets set in this proceeding with activities in other proceedings. That connection will facilitate the transition away from reliance on fossil fuels and toward a diverse portfolio of clean energy resources. Coordination between RPS procurement plans and energy storage procurement targets is especially important for progressing toward the goals laid out in the ACR. As CESA states, “[a]chieving the goals set out under the RPS and P.U. Code Section 2837 requires dynamic and concerted procurement of resources that facilitate integration of renewables.”⁴⁶ Sierra Club and CEJA agree with CESA and BrightSource Energy that energy storage should be considered in RPS procurement plans.⁴⁷

Energy storage should be incorporated into the criteria used to value services provided in RPS procurement plans so that projects with storage capacity are adequately valued. SCE and PG&E note that they are free to procure storage through their respective RPS procurement plans,

⁴⁴ SCE, p. 6.

⁴⁵ *Id.*; ACR, p. 4.

⁴⁶ CESA, p. 21.

⁴⁷ CESA, p. 21; Comments of BrightSource Energy on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and All-Party Noticing (“BrightSource”), pp. 9-10.

and as a result an explicit tie between the two is not necessary.⁴⁸ DRA echoes this sentiment.⁴⁹

This perspective ignores the challenges that storage developers face in entering a market that was designed for the grid of the past. They note that CAISO and the Commission are enacting programs and policies to address those barriers, but omit the fact that those barriers continue to make a connection between RPS procurement plans and storage targets critical.

VII. The Commission Should Replace the Proposed Reverse Auction Mechanism with Alternate Procurement Methods.

There is general agreement among the parties rejecting the proposed reverse auction mechanism based on the Commission's Renewables Auction Mechanism ("RAM") procurement model.⁵⁰ The parties also generally agree on an alternative Requests for Offers ("RFO") based methodology. The Commission should adopt Sierra Club's and CEJA's proposed alternative, which would also properly address transparency and environmental justice concerns.⁵¹

A. The Parties Generally Reject the Auction Mechanism of Procurement

At this stage of the market, energy storage is not amenable to the auction model because the diverse uses of storage are inconsistent with any RAM-based methodology which does not adequately address the benefits and limits the potential success of future storage projects. For example, CESA comments that "[a] RAM does not have the necessary flexibility or relationship to system planning for procuring a diverse resource class such as energy storage, and thus is not a desirable mechanism to use at all for procurement of energy storage resources."⁵² IEP also has "concerns about whether a reverse auction procurement mechanism will meet the needs of the storage program...a uniform payment structure may not meet the needs of all storage

⁴⁸ SCE, pp. 16-17; PG&E, pp. 15-16.

⁴⁹ DRA, p. 8.

⁵⁰ See, e.g. CESA, p. 9; IEP, p. 5; PG&E, p. 2; TURN, p. 2; SCE, pp. 10-11; Comments of San Diego Gas & Electric Company (U 902-E) on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms ("SDG&E"), p. 3.

⁵¹ See Sierra Club and CEJA, pp. 22-25.

⁵² CESA, p. 9.

technologies and types.”⁵³ Similarly, PG&E avers: “RAM is not well suited for evaluating and contracting with the wide variety of storage projects that may bid into the storage solicitations, given that the projects can be expected to be based on various technologies and be in various states of commercial readiness.”⁵⁴ TURN highlights that the traditional RAM approach does not suit the ‘greater complexity of storage procurement.’⁵⁵ SCE states that RAM will not suit all storage cases,⁵⁶ and San Diego Gas & Electric (“SDG&E”) concurs, concluding that “the proposed method may achieve only some of the goals articulated in the ACR, limiting the utility from demonstrating multiple uses while increasing customer rates more than necessary.”⁵⁷

A RAM-based method of procurement is ill-suited for energy storage; it will not ensure the success of storage procurement. The Commission should therefore not move forward with the proposed auction-based method of procurement.

B. The Commission Should Base the Procurement Methods on the Size of the Storage Procured.

The differing size of procured storage should dictate the procurement method. For example, Sierra Club and CEJA propose using targeted RFOs for storage over 1 MW.⁵⁸ These RFOs should target the specific storage needs detailed in an IOU’s solicitation proposal. Procurement through targeted RFOs will allow the Commission to deploy storage exactly where it is needed and overcome market barriers, properly valuing diverse storage attributes with the most competitive options.⁵⁹ For individual storage projects less than 1 MW, the Commission should adopt a simplified and standardized process, instituted through administratively set tariff

⁵³ IEP, p. 5.

⁵⁴ PG&E, p. 2.

⁵⁵ TURN, p. 2.

⁵⁶ SCE, pp. 10-11.

⁵⁷ SDG&E, p. 3.

⁵⁸ Sierra Club and CEJA, pp. 23-25.

⁵⁹ *Id.*, p. 24-25.

rates for specific services. This small scale storage services tariff structure can be supplemented by the Commission's existing program of upfront cash grants.⁶⁰

Several parties to this proceeding propose similar procurement mechanisms. For instance, CESA suggests the use of "RFOs which can account for full resource characteristics and capabilities" of storage, and "contracting mechanisms where RFOs are infeasible."⁶¹ Notably, CESA highlights that an RFO method of procurement will better account for the environmental attributes of storage, if paired with a generation resource.⁶² This method could also address Sierra Club and CEJA's proposal to include an environmental justice siting factor. DRA argues that the ACR's proposal does not "ensure that the right types of storage are procured in areas where they are necessary or needed," whereas an RFO could consider need, location and purpose of storage.⁶³ SCE similarly comments that a reverse auction methodology could prove "infeasible" and "RFO-style competitive solicitations may be preferable" for some forms of storage, along with procurement modeled on existing customer incentive programs for individual customers.⁶⁴ Finally, IREC correctly identifies the minimum requirements of successful procurement: "the ability to name the specific location and the services needed seem to be necessary to ensure the proper services are provided where needed."⁶⁵

There is a general preference for an RFO-based method of procurement. It also makes sense to allow the procurement of smaller scale storage on a customer level with customer contracts and Commission-directed incentives. In addition, this alternative proposal could allow

⁶⁰ *Id.*, p. 25.

⁶¹ CESA, p. 9.

⁶² *Id.*, p. 10; *see also* Sierra Club and CEJA, p. 25 ('a targeted RFO mechanism will ensure the procurement of the most beneficial storage systems, not only in areas that need the storage systems, but also in areas to match, and maximize the benefits of, renewable projects and pollution reduction efforts').

⁶³ DRA, p. 2.

⁶⁴ SCE, pp. 3, 11.

⁶⁵ IREC, p. 10.

for consideration of a wider range of issues, including environmental justice concerns. An RFO could provide greater transparency if the Commission requires, as recommended below.

VIII. Sierra Club and CEJA Support the ACR's Proposed Fifty Percent Limit on Utility Owned Storage

Although some parties take issue with the ACR's proposal that each utility may propose up to fifty percent of its distribution system procurement target for utility-owned energy storage, the ACR's proposal will encourage competition, overcoming market barriers and creating least-cost solutions.⁶⁶ In addition, a diversity of ownership models meets the diverse uses and benefits of energy storage. For instance, as illustrated in Sierra Club's and CEJA's Opening Comments, energy storage provides a tremendous opportunity to back up intermittent resources.⁶⁷ It would make sense for the owner of the renewable resource to also own the energy storage that supports the renewable resource to its full potential.

On the other hand, on the distribution side, IOUs are better positioned to operationally match energy storage options to the appropriate distribution circuits, which are under their ownership and operational control. Energy storage would become another component of the utility's own distribution system, like wires, transformers, and capacitors, which IOUs have extensive experience and comfort in owning and operating. For customer-sited generation, or wholesale DG sites, specific distributed generation projects may benefit from owning their own storage. The ACR's proposal allows for this diverse ownership in order to fully realize the benefits of storage, while at the same time encouraging competition between the IOUs and third parties. The Commission should therefore maintain the ACR's proposal of up to fifty percent of distribution system procurement for utility-owned energy storage.

⁶⁶ See e.g., SCE, p. 9; PG&E, p. 13; SDG&E, p. 6.

⁶⁷ Sierra Club and CEJA, p. 12.

IX. The Commission Should Reject the Attempt to Impose Greater Confidentiality Restrictions.

PG&E and SCE suggest that bid information should be kept confidential for three years;⁶⁸ this should be rejected for two reasons. First, this suggestion will not allow for a proper analysis of both the demand and supply sides of particular energy storage options.

Confidentiality of cost data of successful bids will hinder the adoption of energy storage technologies, where data is essential for an accurate cost/benefit analysis, but is kept secret well into the next biennial procurement cycle.

Second, for its three year confidentiality proposal, both PG&E and SCE rely on confidentiality provisions adopted by the Commission in D.06-06-066. SCE asserts that the confidentiality of bid data must be consistent with the confidentiality matrix adopted by the Commission in D.06-06-066. PG&E elaborates that “terms, conditions and pricing of bids submitted in utility RFOs will be afforded confidential treatment for three years.”⁶⁹ However, this oversimplifies the Commission’s ruling. In fact, “Bid/RFO information in the IOU procurement context should be partially public and partially confidential, depending on the specificity of the data.”⁷⁰ Moreover, the Commission also found that “greater public access should be provided” where there is a public interest in the program.⁷¹ The underlying goal of this proceeding is market transformation. There is a strong public interest to make data available as soon as possible for a full analysis of demand and supply side storage options. This need is

⁶⁸ PG&E, pp. 9-10.

⁶⁹ *Id.*, p. 10.

⁷⁰ D.06-06-066, Interim Opinion Implementing Senate Bill No. 1488, Relating to Confidentiality of Electric Procurement Data Submitted to the Commission, p. 63.

⁷¹ *Id.*, p. 4.

even more apparent in between biennial procurement goals, in line with the ACR's "learning by doing" policy.⁷²

At a minimum, the Commission should ensure that treatment of data does not inhibit the ACR's proposed evaluation of energy storage technologies; PG&E's and SCE's three year proposal would do just that. The confidentiality provisions of D.06-06-066 do not include a blanket bar on all bid data. PG&E's and SCE's readings are over-inclusive, and do not consider the ACR's identified strong public interest in the success of this proceeding, as intended by AB 2514.⁷³ The Commission should clarify the burden on IOUs to claim confidentiality, but still emphasize the need for certain data, such as cost-effectiveness, operational data, and greenhouse gas impacts, in order to satisfy the goal of AB 2514 and remove additional market barriers to storage procurement. Additionally, market transparency is essential to an efficient and competitive market.

CONCLUSION

For foregoing reasons and the reasons in the Opening Comments, Sierra Club and CEJA respectfully request that their recommendations be adopted.

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Respectfully submitted,

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⁷² See ACR p. 4 ('I also believe that additional market barriers for emerging storage technologies will only diminish through a procurement process in which certain data, such as cost-effectiveness, operational data, and greenhouse gas impacts, are specifically solicited and evaluated. Thus, I am proposing a set of procurement targets that will allow this learning to occur for policy makers and industry participants alike.').

⁷³ See *Id.*, pp. 2-3.

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