

**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 ON ADMINISTRATIVE LAW
JUDGE'S DECEMBER 14, 2011 RULING ENTERING INITIAL STAFF PROPOSAL
INTO RECORD AND SEEKING COMMENTS**

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Sierra Club California (“Sierra Club”) respectfully submits the following reply comments on the Administrative Law Judge’s Ruling Entering Initial Staff Proposal into Record and Seeking Comments, dated December 14, 2011.

INTRODUCTION

California is fundamentally changing the nature of its electricity system by prioritizing fossil-free generation. The 33% RPS mandate is a significant step in the direction of a decarbonized future. By 2050, by necessity, the electric system will be much different than it is today. It will be built around renewables not natural gas plants. The State Energy Agencies foresee energy storage playing an important role in the future grid. Similarly, SDG&E avers that “energy storage should be able to provide valuable services and will likely be an important part of ensuring electric reliability going forward as higher levels of variable intermittent renewable resources are introduced and become a larger segment of resource energy and capacity supply.”¹

¹ Comments of San Diego Gas & Electric Company (U 902-E) on Energy Storage Framework Staff Proposal, pp. 1-2.

AB 2514 required the creation of this proceeding, because regulatory failures prevent the development and adoption of energy storage.² This proceeding should provide a holistic look at energy storage issues.³

Despite the passage of AB 2514, the underlying message of many of the commenters in this proceeding is that the State should largely rely on the status quo, *i.e.* the PUC should address storage in existing proceedings other than this one and that CAISO should continue to open markets to energy storage.⁴ For example, Calpine argues that “[t]here is no justification to favor storage in procurement or to create unique cost-effectiveness frameworks for storage.”⁵ In addition, several parties maintain a constant drumbeat that procurement targets are inappropriate.⁶

These comments raise the fundamental question of how best to address energy storage. Yet, AB 2514 already provides an answer that binds the Commission. Energy storage should be comprehensively addressed in this proceeding. In addition to considering procurement targets, in this proceeding the commission has the authority to examine other energy storage policies “including refinement of existing procurement methods to properly value energy storage systems.”⁷ The intent of AB 2514 was to encourage action on energy storage, because the status quo fails to provide the regulatory basis for adequately incorporating storage into the energy system.

² AB 2514, Stats. 2010, ch 469 Section (f).

³ Opening Comments of the California Energy Storage Alliance to Administrative Law Judge’s Ruling Entering Initial Staff Proposal into Record and Seeking Comments, p. 4.

⁴ *See, e.g.*, Pacific Gas and Electric Company’s (U 39 E) Comments on Administrative Law Judge’s Ruling Entering Initial Staff Proposal into Record and Seeking Comments Dated December 14, 2011, p. 10-13; Comments of Southern California Edison Company (U 338-E) to the California Public Utilities Commission on the Energy Storage Framework Staff Proposal, pp. 14-16; Comments of Calpine Corporation on Energy Storage Framework Staff Proposal, p. 3, 4.

⁵ Calpine Comments, p. 1.

⁶ PG&E Comments, p. 13; SCE Comments, p. 16; SDG&E Comments, p. 6; Calpine Comments, p. 4.

⁷ Public Utilities Code §2836(a)(1).

I. Staff's Proposal Must Be Consistent with AB 2514.

As Staff's proposal recognizes, this proceeding must consider procurement targets.⁸ The Scoping Memo explains that procurement targets will be considered after cost-effectiveness has been analyzed.⁹ However, after rejecting procurement targets, PG&E alternatively advocates that if procurement targets are considered, they should be considered in the long-term procurement proceeding.¹⁰ Similarly, DRA recommends that "the amount of energy storage needed to support particular applications should be identified in, and authorized by, each relevant proceeding (e.g. Resource Adequacy, Long Term Procurement Plans, Renewable Portfolio Standards) based on the system need, viability, and cost-effectiveness of energy storage solutions relative to other resources."¹¹ These recommendations are contrary to both the spirit and letter of AB 2514, because they promote addressing energy storage in a diffuse manner. Sierra Club recommends that the Phase 1 Staff proposal and the decision affirm the will of the legislature and place the primary burden for analyzing procurement targets in this proceeding. To facilitate this, Sierra Club has proposed procurement targets.¹²

Sierra Club agrees with DRA in so far as it is suggesting that procurement targets be tied to the needs of the energy system. Similarly, the California Energy Storage Alliance ("CESA") "agrees with Staff's proposal to prioritize energy storage issues on the basis of systems needs

⁸ Energy Storage Framework Staff Proposal, December 12, 2011, Attachment A to the Administrative Law Judge's Ruling Entering Initial Staff Proposal into Record and Seeking Comments (December 14, 2011) p. 14.

⁹ Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge (May 31, 2011) p. 3, 6.

¹⁰ PG&E Comments, p. 2.

¹¹ Comments of Division of Ratepayer Advocates on Administrative Law Judge's Ruling Entering Documents into Record and Seeking Comments, p. 1.

¹² See Reply Comments of Sierra Club California on Administrative Law Judge's December 14, 2011 Ruling Entering Initial Staff Proposal Into Record and Seeking Comments, pp. 10-12.

and technology maturity.”¹³ This information regarding system needs should be taken from other proceedings and fed into this proceeding. For example, this proceeding should take the information developed in the Long-Term Procurement Planning proceeding’s (“LTPP”) renewable integration modeling and analyze it in relation to energy storage. Although the proposed decision regarding this modeling has not been issued in LTPP, the settlement that most parties signed requires system need to be further evaluated. In the interim, this proceeding can address the storage related issues that the LTPP proceeding raises such as how to best integrate renewables and how to address regulation down.¹⁴ After that analysis has been considered, the results of the energy storage proceeding should be used to inform the LTPP and any other relevant proceedings.¹⁵ Otherwise, this proceeding runs the risk of being a mere placeholder while energy storage is addressed in other contexts.

This proposed approach is consistent with AB 2514. Public Utilities Code section 2836.2 states:

In adopting and reevaluating appropriate energy storage system procurement targets and policies pursuant to subdivision (a) of Section 2836, the commission shall do all of the following:

- (a) Consider existing operational data and results of testing and trial pilot projects from existing energy storage facilities.
- (b) Consider available information from the California Independent System Operator derived from California Independent System Operator testing and evaluation procedures.
- (c) Consider the integration of energy storage technologies with other programs, including demand-side management or other means of achieving the purposes

¹³ Opening Comments of the California Energy Storage Alliance on Administrative Law Judge’s Ruling Entering Initial Staff Proposal into Record and Seeking Comments, p. 12; *see also* Comments of the California Independent System Operator Corporation on Initial Staff Proposal, p. 3 (CAISO makes similar point).

¹⁴ See CESA Comments, p. 5 (“LTPP may not be the best, and certainly not the only, forum for determining operational needs. There is a need to first characterize storage with respect to what it can do (applications and end uses), or there may be weak basis for matching storage capabilities with „needs”); *see also* Comments of Brookfield Renewable Energy Partners LP (Formerly Brookfield Renewable Power Inc.) on December 12, 2011 CPUC Ruling Entering Initial Staff Proposal into Record and Seeking Comments, p. 3.

¹⁵ CESA also points out that Staff’s proposal suggests that energy storage will also be addressed in the Smart Grid Deployment plans. Yet, the IOU’s have not included energy storage in those plans. (CESA Comments, pp. 4-5.)

identified in Section 2837 that will result in the most efficient use of generation resources and cost-effective energy efficient grid integration and management.

- (d) Ensure that the energy storage system procurement targets and policies that are established are technologically viable and cost effective.

Unfortunately, the Commission has not yet collected and analyzed the required information.¹⁶

To expedite the process, Sierra Club recommends that Phase 2 commence with an order that requires ISO and parties with relevant information to submit it to the Commission.

II. The Storage Barriers Regulatory Matrix Provides Useful Information, But It Should Not Be Used as a Justification for Delaying Decisions in This Proceeding.

Sierra Club agrees with PG&E's point that the purpose of developing a list of regulatory barriers and the proceedings in which they may be addressed is unclear and consequently, it is difficult to provide appropriate comments.¹⁷ Although the utility of understanding the regulatory landscape is readily apparent, Sierra Club is concerned that the regulatory roadmap could be used as a mechanism to promote a diffuse approach to energy storage rather than addressing the issues squarely in this proceeding.¹⁸

The carbon constrained regulatory climate created by AB 32 should be an important factor considered in this proceeding. Sierra Club agrees with Vote Solar's recommendation regarding "the addition of AB 32 and the California Air Resources Board to the regulatory framework, and analysis of trade-offs over alternate uses of electricity for transportation and heating that might reduce aggregate greenhouse gas (GHG) emissions."¹⁹ Consideration of AB 32 should caution the Commission against concluding that technologies can be considered on technology neutral basis as many parties advocate because this could exclude environmental

¹⁶ See CESA Comments, p. 9.

¹⁷ PG&E Comments, p. 2-3.

¹⁸ See also *id.*, p. 2 ("PG&E is concerned that the matrix outlined in the Staff Proposal implies that each challenge should be addressed in each of the proceedings identified"); *cf.* SCE Comments, p. 5.

¹⁹ Opening Comments of the Vote Solar Initiative on the December 12, 2011 Staff Proposal, p. 2.

considerations. Through the lens of AB 32, carbon free technologies are better than technologies that produce carbon, because technologies that burn fossil fuels do not have a neutral effect on the climate. What is missing from the discussion in many of the comments and the Staff's proposal is an analysis of how energy storage can further the State's energy and environmental mandates and goals.

III. The Commission Should Quickly Proceed to Phase 2 of the Proceeding.

The heart of this proceeding will be developing a valuation methodology and determining the appropriate procurement targets. As the California Energy Storage Association ("CESA") succinctly puts it, "cost-effectiveness needs to come first."²⁰ Sierra Club urges the Commission to make a quick decision in Phase 1 and proceed to Phase 2 immediately thereafter. As CAISO explains, "[t]he Initial Staff Proposal does not recommend any potential policy outcomes for this proceeding. Instead, it proposes a high-level, preliminary analytical framework for considering energy storage issues."²¹ Consequently, Sierra Club disagrees with CAISO that another round of briefing should occur in this Phase.²² Delay is not necessary and it could make the schedule for Phase 2, where the Commission will need to address issues more substantively, bump against the statutory deadline. Sierra Club, similarly, disagrees with DRA's recommendation to delay Phase 2 of this proceeding until energy storage is addressed in Resource Adequacy.²³

On the other hand, Sierra Club agrees with CESA and Vote Solar that it is important to articulate a method for coordinating with the Resource Adequacy ("RA") proceeding.²⁴ Without explicit coordination, the Commission will not be directing the regulatory path for energy storage. For example, the Scoping Plan in the RA proceeding assigned Energy Storage issues to

²⁰ CESA Comments, p. 4.

²¹ CAISO Comments, p. 1.

²² *Cf. Id.*, p. 2.

²³ DRA Comments, p. 4.

²⁴ CESA Comment, p. 3; Vote Solar Comments, p. 2.

Phase 2. Despite this, CAISO made a proposal regarding energy storage issues in Phase I one of the RA proceeding.²⁵ At this juncture, it is unclear if the Commission will address energy storage in a piecemeal fashion in that proceeding by first addressing ISO's proposal in Phase 1 and addressing other issues in Phase 2.²⁶ Sierra Club hopes this is not what Staff intended by its proposed plan to coordinate with CAISO.²⁷

Sierra Club generally supports incorporating the milestones proposed by CESA²⁸ with Sierra Club's recommendation for the roadmap.²⁹

IV. The Cost-Effectiveness Methodology Should Be Developed in Phase 2.

Although the parties have presented preliminary thoughts on how to address cost-effectiveness, Sierra Club recommends that those proposals should be used as starting point for a Phase 2 that begins immediately after the decision in Phase 1. Decisions regarding cost-effectiveness methodology in Phase 1 should be deferred to the next phase, because, at this point, the issues are being presented too abstractly. In Phase 2, the parties will be able to dig into the details of the appropriate methodology. Sierra Club supports CESA's recommendation that an alternative to the cost-effectiveness methodologies in the Standard Practice Manual should be used.³⁰ Sierra Club also agrees with SDG&E's point that "for the energy storage technologies that have only recently been commercialized, the analysis should include a qualitative assessment of the potential for market transformation – that expanded use of the energy storage technology could significantly lower its price long term."³¹

²⁵ ISO Comments, p. 7.

²⁶ See CESA Comments p. 3.

²⁷ Staff Proposal, p. 3.

²⁸ CESA Comments, p 12 (primary milestones Nos. 1-4).

²⁹ Sierra Club Opening Comments, p. 15.

³⁰ CESA, pp. 7-9.

³¹ SDG&E Comments, p. 4.

CONCLUSION

Sierra Club recommends that the Commission use this proceeding to embrace the leadership role that AB 2514 assigned to it by addressing energy storage in relation to the State's energy and environmental mandates and goals. The Commission should quickly conclude Phase 1 of the proceeding and move to Phase 2, where the Commission should require the submission of all relevant AB 2514 data, assess cost-effectiveness and determine appropriate procurement targets.

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