

**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.

R.15-03-011
(Filed March 26, 2015)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON ENERGY DIVISION DRAFT WORKSHOP REPORTS
ON ENERGY STORAGE TRACK 1**

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ submits these comments in response to the *Email Ruling Requesting Comments on the Final Combined Workshop Report for Energy Storage Proceeding*, issued by Administrative Law Judge Julie Halligan on June 4, 2015 (“ALJ’s Ruling”).

I. INTRODUCTION

CESA thanks the Commission for the opportunity to participate in the workshop held on July 28, 2015, on issues related to storage procurement and the workshop held on August 19, 2015, on energy storage technology eligibility and safety. In response to the Draft Workshop Reports on Energy Storage Track 1 attached to the ALJ’s Ruling (“Reports”), CESA focuses these comments on: (a) balancing the need for specificity in future energy storage solicitations; (b) ensuring an appropriate and nuanced evaluation of interconnection requirements for energy storage bids; (c) creating avenues to increase procurement of customer-side domain storage in

¹The 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>).

excess of the current targets; and (d) maintaining flexibility in evaluating bids as market rules and regulations develop.

With these above considerations, CESA urges the Commission to issue a Track 1 Proposed Decision as quickly as possible and to immediately begin work on Track 2. While the short-term issues in Track 1 must be expeditiously resolved, Track 2 will involve very substantial medium and long-term issues.²

II. BALANCE IS NEEDED IN ADDING MORE SPECIFICITY TO ENERGY STORAGE REQUESTS FOR OFFERS WITHOUT OVER-SPECIFYING NEEDS.

The Reports quote Clean Coalition and San Diego Gas & Electric (“SDG&E”) as calling for greater specificity and specific use-cases in future Request for Offer (“RFO”) solicitations, consistent with comments filed by CESA and a number of other parties. CESA continues to support greater specificity, within reason and as applicable. Greater specificity can aid bidders in designing bids and solutions while simplifying the evaluation process for utilities. A solicitation for specific services also provides bidders with greater transparency in how their energy storage services are being valued and used by utilities and would also reduce the need for proprietary valuation tools. CESA continues to support the need for greater specificity in future RFO solicitations.

² The scope of Track 2 involves many important issues. As noted in the Report, for example, California’s long-term procurement planning horizon of 10 years does not accommodate large pumped hydro, and projects above 50 MW have been barred from participating in the energy storage program. (Report, pg. 9). This matter is very important to certain CESA members. For example, CESA member, Eagle Crest Energy, is developing a 1300 MW closed loop pumped storage project known as Eagle Mountain in Southeastern Riverside County. The project received a FERC License in June, 2014 and has an estimated on-line date as early as 2022. It will have a ramping rate of 20 MW/sec. in pump and generation modes and a maximum continuous duration of discharge of 16 hours. Another CESA member, EDF Renewables, is developing the Swan Lake North Pumped Storage Hydro Project, which will be located approximately eleven miles northeast of Klamath Falls in Klamath County, Oregon, with an anticipated construction start date in 2019 and an operational date in 2023. Using reversible pump-turbine units, that project will have a capacity to deliver 393.3 MW in generation mode and 415.8 MW in pumping mode.

At the same time, CESA balances its call for greater specificity by cautioning against “over-specification,” which may preclude new energy storage technologies and business models. By prematurely standardizing and over-specifying the services and business models requested in RFO solicitations, utilities may miss opportunities to receive innovative bids that this broadness elicits. As further discussed below, there are a number of ongoing Commission proceedings and California Independent System Operator (“CAISO”) initiatives that are working to develop rules for multiple-use resource applications, rate design, and flexible capacity markets. Energy storage bidders should have opportunities to propose new solutions that take advantage of these new rules as these proceedings and initiatives are concluded.

Overall, CESA supports greater specificity of the intended policies/services that will be achieved by the competitive procurement (not the specific solutions) and transparency in future RFO solicitations but recognizes that flexibility should be given to bidders to propose new innovative bids as market rules develop. To this end, CESA recommends that the Commission continue to employ a flexible energy storage procurement framework adopted in R10-12-007.

III. A NUANCED EVALUATION OF ENERGY STORAGE PROJECT FEASIBILITY AND INTERCONNECTION REQUIREMENTS IS APPROPRIATE.

As indicated in its Reply Comments on the Scoping Order in this proceeding, however, CESA observed that excessive concerns and requirements for project feasibility can lead to higher costs and perhaps sub-optimal RFO participation by bidders. During the workshop held on July 28, 2015, the utilities recommended more proscriptive interconnection requirements for energy storage project bidders for the 2016 procurement cycle. PG&E considered whether to require bidders to be further along in the interconnection process. SCE suggested that it would require bidders to complete a Phase 1 Interconnection Study, citing the Renewables Portfolio Standard RFO requirement of a Phase 2 Interconnection Study as evidence that a Phase 1

requirement for the energy storage RFO solicitations is reasonable and necessary to evaluate project viability.

For transmission and distribution domain projects, CESA believes that it is unreasonable to push for bids to be “further along the interconnection process” given the short time frame of the solicitation process and the goals of building industry experience, capabilities, and participation. For instance, having a Phase 1 Interconnection Study completed, or more broadly requiring an interconnection queue position, by the time energy storage proposals are submitted is an unreasonably high bar for many developers at this point, especially for customer domain energy storage projects that typically involve aggregated resources with multiple interconnection points. CESA believes the true goals here should be twofold: (i) indicate an appropriate level of project feasibility and (ii) establish some reasonable barrier to entry so that only the more realistic projects are considered and so that demonstrably infeasible projects do not “clutter up the queue.”

To address both points, CESA believes that site-control³ is a very useful and appropriate metric to assess. Site control indicates that the project is reasonably organized and serious. It implies some organized and legal arrangements are underway and that capital may be invested. Uncertainties around interconnection and related upgrade costs can be managed by continuing the 2014 energy storage RFO solicitation practice of having bidders provide estimates of transmission and distribution upgrade costs tied to a proposed project upon application and having projects meet interconnection requirements by the time the contract is approved.⁴ This

³ Site control would provide the assurance that if the project is selected and approved by the CPUC, it could be developed at the identified site.

⁴ Various approaches to these matters could be used, including: the bidder could be at risk for cost overruns, or the bid-price could include all such costs and the bidder could forego certain reimbursements under the interconnection Tariff.

seems reasonable given the relatively long lead time between initial proposal and contract approval. To help ensure timely delivery of interconnection studies, PG&E offers a potential solution in requiring a performance deposit that is reimbursed upon study completion, which CESA could support as long as the deposit is not burdensome for developers and fits with PPA development security and project selection criteria. It is reasonable to expect site control – not necessarily a completed Phase 1 interconnection study – as an appropriate sign of project viability for transmission and distribution interconnected projects, as CESA has previously recommended.

Completely different criteria can be considered for behind-the-meter (“BTM”) projects, and utility best-practices should acknowledge the fundamental interconnection differences in BTM projects vs. larger-scale transmission or distribution interconnected projects. BTM projects use Rule 21 interconnections, and may have numerous small and potentially “fast-tracked” projects to deploy. It is unreasonable at this time to assume a full suite of established interconnection applications for such aggregated projects. This point again highlights how utilities need to build and hone capabilities in fairly evaluating amongst a broad array of energy storage solutions.

IV. AVENUES FOR INCREMENTAL PROCUREMENT FROM THE CUSTOMER-SIDE STORAGE “DOMAIN,” IF COMPETITIVE AND FAIR SHOULD BE CREATED.

CESA has assessed the established procurement domains and sees merit in continuing the majority of the procurement with an eye toward maintaining these domains. The use of these domains ensures the utilities expand their experience with a variety of energy storage solutions. To this end, the Commission should ensure each domain has a “target floor” of procurement so

that a sufficient level of procurement occurs in each domain.in lines with the market transformation goals established in D. 13.10.004.⁵

At the same time, CESA recommends that the Commission allow for some “customer domain” energy storage projects to compete against distribution level projects in meeting established targets in future utility storage solicitations pursuant to D.13.10.004. In principle, CESA supports competition in procurement and competition amongst all domains of energy storage to ensure cost-effective outcomes and for the utilities to build capabilities to compare, contrast, and evaluate different energy storage solutions. In the event that the Commission were to allow customer-domain energy storage projects to compete for distribution-level procurement opportunities, the Commission should accordingly allow the customer-domain projects to satisfy the distribution-level energy storage procurement goals. As discussed above, limits on the ability to satisfy procurement needs of one domain with projects from other domains should continue and be administered so that this aspect of the goals original energy storage proceeding (R.10-12-007) are met.

Customer domain energy storage goals have already been met for the next several years for at least one utility. Allowing a capped opportunity for customer domain energy storage solutions to compete for distribution level procurement will promote some continued market development for this category of energy storage solutions. Market-transformation considerations considered in R.10-12-007 informed the energy procurement goals then and remain relevant now. In addition to this recommended change to the existing procurement goals, CESA believes

⁵ See, *Decision Adopting Energy Storage Procurement Framework*, D.13-10-040, issued October 17, 2013, in R.10-12-007, “The Proposed Plan referred to the market barriers hindering broader adoption of emerging storage technologies and market transformation that were identified in D.12-08-016”, pg. 7.

market-development and further procurement goals and needs should be considered and developed in Track 2 of this proceeding as planned.

For customer-domain energy storage projects competing to meet some level of established energy storage procurement for other domains as contemplated by R.10-12-007, CESA believes it could be appropriate that procurement rules preclude the use of Self-Generation Incentive Program (“SGIP”) as suitable to help promote fair competition in this context.

Finally, while CESA’s position on this subject has evolved, CESA reiterates support for transfer rules that protect the smaller customer-side domain targets at this time. The general intent of R.10-12-007 was for utilities and other stakeholders to gain procurement experience in all three domains, and thus recommendations by SDG&E and SCE to allow transfers from the customer-side domain target to the transmission and distribution domain targets would be counterproductive, because they could create a risk of larger transmission and distribution domain projects “swamping” customer domain targets. As the Commission clearly recognizes, customer-side energy storage has its own unique best practices, challenges, and benefits. Complaints about the “lack of flexibility” to meet customer domain targets discussed in the Report ⁶with procurement in other domains fail to consider key goals of R.10-12-007, wherein the need to ensure customer-domain procurement was considered and evaluated.

V. **FLEXIBILITY IN EVALUATING APPLICATIONS AND BIDS SHOULD BE MAINTAINED AS MARKET RULES AND REGULATIONS DEVELOP.**

The utilities are quoted as stating that the lack of market rules governing dual-use applications has made it difficult to assess bids that propose multiple-use applications. This is a fair assessment, but CESA cautions against using the lack of market rules and regulations for

⁶ See, *Comments by Southern California Edison and San Diego Gas & Electric*, filed July 8, 2015.

multiple-use applications as a deterrent in evaluating such bids. Given the significant progress of the CAISO's Energy Storage & Distributed Energy Resource ("ESDER") initiative and Frequency Resource Adequacy Criteria and Must-Offer Obligation ("FRACMOO 2") initiative that will likely conclude in 2016, and rules are likely to be in place to enable multiple-use applications and flexible resource adequacy capacity, respectively. The Commission should encourage accelerated conclusion of the CAISO's initiatives, and integrate and coordinate with them during Track 2 of this proceeding to ensure that future solicitations reflect these likely market changes that will generate additional revenue streams for bidders and additional system benefits for utilities.

During Track 2, the Commission will determine dispatch coordination and prioritization of energy storage resources providing both transmission level services to the CAISO and distribution level services to the utilities. Much of this discussion is already taking place within the context of the ESDER initiative, so CESA believes that Track 2 of this proceeding would be best utilized in discussing how the ESDER initiative's outcomes will be reflected in the energy procurement framework and solicitation process.

VI. CONCLUSION

CESA looks forward to working with the Commission and parties to ensure this proceeding accomplishes the goals established by the California legislature and the Commission.

Respectfully submitted,



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