

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

Application of Southern California Edison
Company (U338E) for Approval of the
Results of Its 2016 Energy Storage and
Distribution Deferral Request for Offers.

Application 17-12-002
(Filed December 1, 2017)

And Related Matter.

Application 17-12-003

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON THE PROPOSED DECISION APPROVING ENERGY STORAGE AGREEMENTS
AND ASSOCIATED COST RECOVERY MECHANISMS**

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September 27, 2018

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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 hereby submits these comments on the *Proposed Decision Approving Energy Storage Agreements and Associated Cost Recovery Mechanisms* (“Proposed Decision”), issued by Administrative Law Judge (“ALJ”) Brian R. Stevens on September 7, 2018.

¹ 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Axiom Exergy, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Centrica Business Solutions, Consolidated Edison Development, Inc., Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Enel, Energport, ENGIE, E.ON Climate & Renewables North America, esVolta, Fluence Energy, GAF, General Electric Company, Greensmith Energy, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Iteros, Johnson Controls, Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., Parker Hannifin Corporation, Pintail Power, Primus Power, Range Energy Storage Systems, Recurrent Energy, Renewable Energy Systems (RES), Sempra Renewables, Sharp Electronics Corporation, SNC Lavalin, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, True North Venture Partners, Viridity Energy, VRB Energy, Wellhead Electric, 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://storagealliance.org>).

I. INTRODUCTION.

CESA supports the efforts by the Commission and the investor-owned utilities (“IOUs”) to transform the market for energy storage under the Assembly Bill (“AB”) 2514 Framework to become a widely-used asset that supports renewable integration and reliability while advancing the state’s greenhouse gas (“GHG”) goals and providing ratepayer savings through optimization of grid resources. Each of the investor-owned utilities (“IOUs”) has been instrumental in this regard, and all have demonstrated significant progress toward the AB 2514 energy storage targets set under Decision (“D.”) 13-10-040. Furthermore, for their efforts to operationalize energy storage deployments and increase the utilization of very flexible energy storage resources, CESA commends the policy and regulatory work by the Commission and other stakeholders in Rulemaking (“R.”) 15-03-011. Not only has this Rulemaking fostered a competitive storage market in California, it has adopted rules to govern and recognized value streams from multiple-use applications (“MUAs”) from energy storage resources, which enhances the cost-effectiveness of energy storage, provides tremendous optionality to address evolving grid needs, and delivers greater benefits to ratepayers.

Given this context, CESA appreciates the robust solicitation conducted by Pacific Gas and Electric Company (“PG&E”) and Southern California Edison Company (“SCE”) in their respective 2016 Energy Storage Request for Offers (“RFO”) and strongly supports the Proposed Decision’s approval of PG&E’s six energy storage agreements and SCE’s one energy storage contract. As the Proposed Decision explains, PG&E and SCE conducted their competitive solicitations fairly, reasonably, and in conformance with prior decisions and state law. Furthermore, with PG&E and SCE exploring innovative MUAs of solicited energy storage projects, the Proposed Decision also correctly determines that the energy storage contracts executed by PG&E and SCE are cost-effective when taking into account all of the intended value

streams of these energy storage projects. Therefore, the findings of the Proposed Decision are reasonable and PG&E's six energy storage agreements and SCE's one energy storage contract warrant approval in light of all of the evidence.

II. THE APPROVAL OF SCE'S POWIN CONTRACT IS REASONABLE GIVEN ITS COST-EFFECTIVENESS WHEN TAKING INTO ACCOUNT THE FULL RANGE OF BENEFITS.

CESA commends SCE for conducting its 2016 Energy Storage RFO to maintain momentum in transforming the energy storage market despite having met its 2016 biennial cycle targets, per D.13-10-040. Continued procurement of cost-effective energy storage resources will be important in supporting the maturation of the energy storage market, especially as the IOUs explore innovative use cases of energy storage. In the case of the one executed energy storage contract with Powin, SCE pursued an innovative use case where an energy storage resource can be used primarily for Resource Adequacy ("RA") purposes but also leveraged to contribute to its resiliency needs during an N-2 contingency event.

Throughout this proceeding, it appears that The Utility Reform Network ("TURN") in its opening testimony disputed the cost-effectiveness of this project, which resulted in a slightly negative net market value ("NMV") during the offer evaluation process, but the Proposed Decision rightly concurs with SCE that the contract is cost-effective when taking into account the resiliency benefits.² CESA agrees and finds it reasonable to take into account the non-quantified value streams of the project, since only the RA value was quantified in the offer evaluation process. Furthermore, despite not addressing the full resiliency need, CESA supports the Proposed Decision's conclusion that there is still value to contributing to the resiliency need.³ Going

² Proposed Decision, p. 17.

³ *Ibid*, pp. 18, 20.

forward, as the Energy Storage Procurement Framework evolves and matures, this proceeding has revealed that perhaps the Commission and stakeholders may benefit from exploring methodologies to quantify resiliency benefits provided by energy storage resources and possibly other distributed energy resources (“DERs”).

In addition to approving the Powin contract, the Proposed Decision also agreed with TURN’s recommendation to track the “materialization” of the claimed qualitative benefits and to assess whether the Powin facility could potentially meet future distribution deferral needs.⁴ CESA agrees that it would be broadly helpful to track the materialization of the resiliency benefits, as it may inform how future solicitations can quantify resiliency benefits. CESA also finds it reasonable for the Commission to consider the Powin facility for future distribution deferral needs, as it should for other existing energy storage facilities that could potentially be repurposed to meet a critical distribution deferral need. This is one of the benefits of energy storage, which can flexibly provide multiple grid services and potentially be repurposed for evolving grid needs. While the Powin facility should be considered for future distribution deferral needs in the area, CESA notes that there may be other facilities that could cost-competitively address the same need. Any future deferral need should be subject to a competitive solicitation, with the Powin facility among one of the facilities that could potentially meet that need. Plus, given that the Powin facility is already intended to be used for multiple reliability services (*i.e.*, RA and resiliency), it may not be able to service the distribution deferral need under the MUA rules, depending on the coincidence of the deferral and RA need. CESA raises this point because, as precedent, future solicitations for energy storage should not condition approval of energy storage contracts on their ability to address other yet-to-materialize reliability needs. While supportive of MUAs, CESA

⁴ *Ibid*, p. 21.

believes that SCE has already achieved cost-effective MUAs for this energy storage contract, even without factoring in the option value for potentially addressing an additional distribution deferral need.

III. THE APPROVAL OF PG&E'S FIVE CAPACITY STORAGE AGREEMENTS ARE CLEAR AND NOT CONTESTED.

CESA also commends PG&E for its robust solicitation in its 2016 Energy Storage RFO, which materially advances PG&E's progress in achieving its biennial energy storage procurement targets. With this RFO, PG&E has well made up for shortfalls from the 2014 biennial cycle, built on its learnings, and developed a portfolio that resulted in high NMVs and in diversity in sizes, online dates, and terms.⁵ Thus, CESA agrees with the Proposed Decision that the five Capacity Storage Agreements ("CSAs") for 145 MW of energy storage should be approved as no parties contested or objected to these contracts.

IV. THE APPROVAL OF PG&E'S TESLA LLAGAS CONTRACT IS REASONABLE WHEN TAKING INTO ACCOUNT THE FULL RANGE OF BENEFITS AND TIMING OF NEED.

Like SCE, PG&E explored an innovative use case for energy storage MUAs that could provide both RA benefits as well as address a distribution deferral need at the Llagas Substation – *i.e.*, the Tesla Llagas project. The Office of Ratepayer Advocates ("ORA") expressed some concerns about whether PG&E adhered to the MUA decision, D.18-01-003, and whether the project was truly cost-effective. However, the Proposed Decision determines that the project is cost-effective when taking into account the expected market revenues from using the Tesla Llagas project for both distribution reliability and wholesale market participation functions.⁶ Similar to

⁵ *Ibid*, p. 21.

⁶ *Ibid*, p. 24.

SCE's Powin contract, it may be prudent in the future to develop and vet methodologies for forecasting wholesale market revenues, as this is a key part of ensuring the cost-effectiveness of dual-use energy storage projects providing both a distribution reliability and market function,⁷ but it should not preclude the approval of this project, as it was demonstrated by PG&E as being one of the most economically valuable projects in its solicitation. Furthermore, CESA agrees with the Proposed Decision that the Tesla Llagas contract is consistent with the MUA rules in D.18-01-003, as PG&E is both the buyer and the operator of the energy storage asset.⁸ The Proposed Decision correctly applies the "energy storage provider" role to PG&E in this case in regards to Rule 7 of D.18-01-003 and thus does not require PG&E to contract with itself (*i.e.*, the buyer). Finally, CESA also supports the Proposed Decision's determination that the 2021 timing of the commercial online date and the 2021 overload of the Llagas Substation justify approval of this contract.⁹ Taken all together, CESA believes the Commission has sufficient grounds to support the approval of the Tesla Llagas project, as the Proposed Decision does.

V. **A SUCCESSOR ENERGY STORAGE RULEMAKING IS NEEDED TO ADDRESS UNIFORM COST ALLOCATION POLICIES FOR MULTIPLE-USE APPLICATIONS, AMONG OTHER OUTSTANDING ISSUES.**

For MUAs, the Proposed Decision explains that there is no uniform policy to allocate costs across generation and distribution functions for certain MUAs of energy storage. CESA agrees that this is an open issue that should be addressed. Furthermore, several potential areas to improve the Energy Storage Procurement Framework have emerged as PG&E and SCE have explored

⁷ CESA notes that, in the Storage as Transmission Asset ("SATA") Initiative, the California Independent System Operator ("CAISO") has highlighted this issue for energy storage resources providing both a transmission reliability function and a market participation function, where the competitiveness of energy storage as a non-wires alternative may depend on how to forecast expected market revenues. The CAISO committed to addressing this matter in the Transmission Planning Process ("TPP").

⁸ Proposed Decision, p. 16.

⁹ *Ibid*, p. 24.

innovative use cases, including MUAs. In addition to the uniform cost allocation policies (*e.g.*, how wholesale market revenues should be credited to distribution reliability costs), the Commission may also wish to explore refinements to evaluation methodologies to quantify resiliency benefits and forecast market-based revenues for energy, ancillary services, etc., especially as energy storage MUAs increase in prevalence and familiarity. These open issues warrant a successor proceeding to Energy Storage Rulemaking, R.15-03-011, which is currently closed. The Proposed Decision alludes to having the MUA Working Group potentially address these issues, but that group of stakeholders completed their chartered tasks and submitted a Final Working Group Report on August 9, 2018, and the 2018 Energy Storage Applications (A.18-02-016, *et al.*) proceeding will presumably close by the end of this year and be ill-suited to address some of these quasi-legislative policy issues. Thus, CESA recommends that the Commission open a successor Energy Storage Rulemaking soon to address these matters, among many other outstanding issues.

VI. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Proposed Decision and supports the timely approval of all proposed energy storage contracts. In addition, CESA recommends that the Commission open a successor Energy Storage Rulemaking to address uniform cost allocation policies for MUAs, which emerged as a key issue in the course of evaluating A.17-12-002 and A.17-02-003. CESA looks forward to working with the Commission and parties going forward on these matters in a future proceeding.

Respectfully submitted,



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Date: September 27, 2018