

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



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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

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

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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 reply 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 continues to support the market transformation of the energy storage market, including for new innovative use cases of energy storage, including for energy storage resources performing multiple-use applications (“MUAs”) that increase the utilization of any given energy storage resource and improves the cost-effectiveness of energy storage resources when accounting for the full range of benefits and revenue streams. On the most part, no parties protested the approval of most of the energy storage contracts proposed by Pacific Gas and Electric Company (“PG&E”) and Southern California Edison Company (“SCE”). However, one area of disagreement with the Proposed Decision’s determinations to approve all of PG&E’s and SCE’s energy storage contracts is expressed by the Public Advocates Office (“PAO”), specifically regarding the 20-MW Tesla Llagas Project that will provide distribution deferral at the Llagas Substation as well as generate market revenues to offset distribution costs borne by the ratepayer. CESA disagrees with the PAO’s assessments and finds that this MUA presents a significant opportunity to not only test out an innovative use case but also to deliver significant ratepayer savings through a cost-effective distribution investment in a ‘non-wires’ solution.

The focus of our reply comments is thus to respond to PAO’s comments to not approve the Llagas Project. Specifically, the Commission’s distribution deferral cost-effectiveness policies should not be narrowly applied, the Commission should view the broader context of the Electric Program Investment Charge (“EPIC”) Project 1.01 that the PAO cites in its comments, and the PAO misrepresents precedent from D.16-09-004. CESA details these points further below.

II. THE COMMISSION SHOULD INCORPORATE POTENTIAL REVENUE STREAMS IN THE DISTRIBUTION DEFERRAL COST-EFFECTIVENESS ASSESSMENT.

The PAO cites two Commission decisions, D.18-02-004 and D.16-12-036, from the Integrated Distributed Energy Resources (“IDER”) (R.14-10-003) and Distributed Resources Plan (“DRP”) (R.14-08-013) proceedings as justification for why the Llagas Project fails to comply with the Commission’s distribution deferral cost-effectiveness policies, wherein distributed energy resource (“DER”) alternatives are only found to be cost-effective alternatives to the traditional upgrade project if the costs of the former are below that of the latter.² However, CESA finds this

² PAO comments at pp. 10-11.

narrow focus on upfront costs (e.g., capital, 4% incentive) does not reasonably assess the cost-effectiveness of energy storage MUAs that are able to offset (or credit) those upfront distribution costs over time through operational revenues – *i.e.*, from participating in the wholesale energy market and from monetizing the Resource Adequacy (“RA”) value, as PG&E explained.³

Importantly, CESA recommends that the Commission consider the context of the two decisions that PAO cites. The focus on third-party distribution deferral opportunities in the DRP and IDER proceedings means that many third parties are ‘internalizing’ the expected revenue streams from programs (e.g., Self-Generation Incentive Program, demand response), tariffs and rate schedules, and market participation. The ability to monetize those services outside of the distribution deferral solicitation allows third-party bidders to offset their upfront capital costs and bid only their residual costs into competitive solicitations.

In projects bid by third-party developers where the revenues are partially ‘sourced’ elsewhere, it is reasonable to assess whether the costs of third-party DER alternatives bid into the solicitations are lower than that of the upfront capital cost of the traditional upgrade project, per D.18-02-004 and D.16-12-036. However, in the case of the Llagas Project and other utility-owned projects, the utility is both the energy storage buyer and operator, and thus *both* the costs and expected revenues must be factored into the cost-effectiveness calculation to determine whether, in net, the energy storage alternative falls below the costs of the traditional upgrade project. PG&E has demonstrated as such. To put this another way: in a third-party-owned project, the project developer has already factored additional revenue streams into its bid price. In order to create an ‘apples-to-apples’ comparison between third-party- and utility-owned projects, PG&E should also factor additional market revenues from storage operations into its cost-effectiveness assessment and subtract those revenues from the upfront capital cost in order to arrive at a net cost.

III. EXPECTED MARKET REVENUES ARE INTENDED TO PROVIDE SUPPLEMENTAL REVENUE AND OFFSET DISTRIBUTION COSTS RATHER THAN BE THE PRIMARY REVENUE STREAM.

The PAO cited the EPIC Project 1.01 report to suggest that the wholesale market revenues may be *de minimus* and not a significant factor into the cost-effectiveness calculation of the Llagas Project. However, there are certain limitations on how much this report, while still very

³ PG&E testimony at 7-2 – 7-3, 7-5 – 7-6.

informative, should be used to assess the merits of this project. First, operation of the Vaca-Dixon Project, the subject of the EPIC report, operated in the CAISO markets between August 2014 and January 2016,⁴ but the CAISO has seen significant changes to energy market prices in the years since then⁵ with higher differentials between the mid-day and peak evening hours as the ‘duck curve’ effects become more pronounced due to ever-increasing quantities of solar energy on the grid. Therefore, PAO’s conclusion that day-ahead and real-time energy prices do not provide a significant energy arbitrage opportunity is based on a study that is out of date and is not applicable to market and grid conditions that exist today and that will continue to change in the future. Second, the Vaca-Dixon was tested as a pure market-facing resource whereas the Llagas Project is intended to generate supplemental market revenues to ultimately offset the distribution costs. The cost-effectiveness assessment of the EPIC report was to determine whether merchant market participation would *offset the all-in costs* of the Vaca-Dixon Project.⁶ By contrast, the Llagas Project should be assessed on whether the expected market revenues would *offset some of the distribution costs* to the degree that it achieves distribution deferral cost-effectiveness.⁷ Thus, CESA believes that the Commission should keep these key differences in mind when assessing the applicability of PG&E’s EPIC report to the Llagas Project.

IV. THE OVERLOAD EXPERIENCED AT THE LLAGAS BANK 3 IN 2017 DOES NOT PROVIDE A LOGICAL BASIS TO DENY THE LLAGAS PROJECT, AND PAO MISREPRESENTS COMMISSION PRECEDENT.

In arguing that the Commission should deny the Llagas Project, the PAO points to the fact that Llagas Bank 3 overloaded by 2.9 MW in 2017. The fact that the bank in question experienced an overload last year, however, does not justify rejection of a project that would address the overload in question. On the contrary, the fact that an overload has already occurred should

⁴ EPIC Project 1.01, *Energy Storage End Uses, Energy Storage for Market Options*, p. 11. https://www.pge.com/pge_global/common/pdfs/aboutpge/environment/what-we-are-doing/electric-program-investment-charge/PGE-EPIC-Project-1.01.pdf

⁵ EIA, *Today in Energy*, “California wholesale electricity prices are higher at the beginning and end of the day,” July 24, 2017. <https://www.eia.gov/todayinenergy/detail.php?id=32172>

⁶ PG&E Report, pp. 59-61.

⁷ CESA also points to how storage as transmission assets that overly rely on market revenues may be better suited as a market resource and thus it would be unreasonable to expect significant market revenues as pursued by the Vaca-Dixon Project. See *SATA Revised Straw Proposal* at p. 10. <http://www.caiso.com/Documents/RevisedStrawProposal-Storageas-TransmissionAsset.pdf>

provide greater justification and urgency for approving the project. Moreover, the PAO points out that PG&E is addressing the overload by transferring load onto an adjacent bank.⁸ Thus, the PAO's argument is rendered moot by the fact that PG&E has means at its disposal (*i.e.*, transferring load) to address the overload in the short term before the project comes online. Finally, the PAO points to D.16-09-004 as a precedential case where the Commission denied an energy storage project because it would not come online in time to address the overload.⁹ In doing so, however, the PAO misrepresents D.16-09-004 by suggesting that failure to meet an overload by the project's online date was the sole reason why the Hecate projects were denied. A closer read of the D.16-09-004, however, shows that the Commission rejected the Hecate projects primarily because the projects were not cost-effective.¹⁰ Thus, a small overload prior to the online date is not sufficient reasoning to deny the project, which were found to be cost-effective.

V. CONCLUSION.

CESA appreciates the opportunity to submit these reply comments on the Proposed Decision and supports the timely approval of all proposed energy storage contracts.

Respectfully submitted,



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⁸ PAO comments at p. 3.

⁹ *Ibid*, p. 3.

¹⁰ *Decision Approving Energy Storage Agreements and Providing Guidance on Calculating Above-Market Costs for Storage*, D.16-09-004, issued on September 20, 2016, p. 13.

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M167/K340/167340379.PDF>