

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

Application of Pacific Gas and Electric
Company (U39E) for Approval of Demand
Response Programs, Pilots and Budgets for
Program Years 2018-2022.

Application 17-01-012
(Filed January 17, 2017)

And Related Matters.

Application 17-01-018
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**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON THE PROPOSED DECISION ADDRESSING AUCTION MECHANISM,
BASELINES, AND AUTO DEMAND RESPONSE FOR BATTERY STORAGE**

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ hereby submits these comments to the *Proposed Decision Addressing Auction Mechanism, Baselines, and Auto Demand Response for Battery Storage* (“PD”), filed by Administrative Law Judges (“ALJ”) Kelly A. Hymes on May 31, 2019.

¹ 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, Aggreko, Alligant Scientific, LLC, AltaGas Services, Amber Kinetics, Ameresco, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Better Energies, Boston Energy Trading & Marketing, Brennmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Clean Energy Associates, ConEd Battery Development, Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, EDF Renewable Energy, eMotorWerks, Inc., Enel X North America, Energport, Energy Vault, Engie Storage, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, General Electric Company, Greensmith Energy, Gridwiz Inc., Hecate Grid LLC, Highview Power, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Energy Solutions, LS Power Development, LLC, Magnum CAES, Malta Inc, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., Nuvve, Pattern Energy, Pintail Power, Plus Power, Primus Power, PolyJoule, Quidnet Energy, Range Energy Storage Systems, Recurrent Energy, RES Americas, SNC-Lavalin, Soltage, Southwest Generation, Stem, STOREME, Inc., Sunrun, Swell Energy, Tenaska, Inc., Tesla, True North Venture Partners, Viridity Energy, VRB Energy, WattTime, and Wellhead Electric. 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.

Demand response (“DR”) represents an important grid resource to support the state’s environmental and clean energy goals and its importance is not only reflected in the loading order but also in the statewide DR goal and in promoting customer choice and engagement to provide grid services. The Demand Response Auction Mechanism (“DRAM”) is one mechanism by which the state can advance toward the state’s DR goals by engaging new customers and by animating a growing industry of third-party demand response providers (“DRPs”). As evidenced from a recent annual report on the state’s progress toward its interim 2020 goal of 5% of the investor-owned utilities (“IOUs”) combined coincident peak load, the state stands at only 0.95% and therefore has much more room to grow and develop.²

Within this context, CESA generally supports the PD for proposing a four-year continuation of the DRAM due to the positive results related to the market transformation metrics. The PD leans on the results and findings from the DRAM Evaluation Report published in January 2019, which found that the DRAM was successful in engaging new customers and DRPs who had not participated in DR programs previously. CESA believes this continuation is important to attracting additional DRPs as well as market certainty to ‘mature’ DRPs who have invested the time and resources to participate in the DRAM. Additionally, the continuation of the DRAM better ensures that a growing customer base is enrolled in DR activities that ultimately serve to provide grid support in addition to customer benefits.

At the same time, the PD highlighted several key areas of improvement, as well as proposing several solutions to address shortcomings in performance, reliability, and competitiveness of price offers. CESA supports many of the PD’s improvement proposals, such

² *Joint IOU Status Report on Progress Toward Interim Goal Approved in Decision 14-12-024* submitted on June 17, 2019 in R.13-09-011 at p. 3.

as around the penalties and default structure, elimination of the simple August average bid cap, and the prohibitions and exceptions for customer service account movements. In other areas, CESA supports the PD's improvement proposals with modifications, which are discussed in the subsequent sections of our comments herein. Altogether, CESA commends the Commission for effectively leveraging the DRAM Evaluation Report results and findings and proposing a directionally reasonable set of improvements to address the identified shortcomings.

Given these improvements proposed for adoption, CESA believes that the DRAM is ready to move beyond the 'pilot concept' into a 'mainstream' procurement mechanism for third-party DR resources. The proposed annual budget suggests that the DRAM is still perceived and positioned as a pilot, especially as the budget is set at comparable levels as the four previous DRAM pilots despite the need to grow the roles of DR as mentioned above. In effect, the Commission has positioned the DRAM as an eight-year pilot mechanism dating back to the first auction in 2015. This is concerning in the sense that the DRAM pilots were found to be successful across the market transformation metrics and were found to be somewhat successful, with at least a portion of the high-performing DRP participants achieving 80% to 100% reliable dispatch and performance³ – a promising result showing that the DRAM is not broken but in need of certain fixes. The PD acknowledges that poor performance is not systemic.⁴ With the proposed goals and improvements in the PD, though with some modifications in certain areas, CESA believes that the Commission should be better assured of improved and more consistent performance and reliability going forward across all DRAM resources.

³ PD at p. 15.

⁴ PD at p. 26.

The PD communicates an inability to rule on the permanence of the DRAM given the need for program improvements to be implemented and borne out in the evaluation results. The overly careful approach proposed in the PD is inconsistent with other innovative or new procurement mechanisms and programs have been supported and have moved from the pilot phase to scaling stage, so long as the pilot evaluation results showed promising results and informed key improvement steps or modifications needed to address gaps, challenges, and shortcomings. For example, the Renewable Portfolio Standard (“RPS”) Program faced issues in the early days around enforcement mechanisms, contracting standards, and developer inexperience, but the Commission worked to address those issues over time and now has built an electricity system where load-serving entities (“LSEs”) in California are all at or above 30% RPS levels, supporting the state’s environmental goals. A more recent example may be each of the IOUs’ light-duty electric vehicle (“EV”) pilot programs where experience was gained on EV deployment and lessons were learned on various shortcomings (*e.g.*, minimum port requirements deterring deployment at multi-unit dwellings), which have informed next-phase efforts to scale the program with improvements. Notably, a ‘failure’ to deliver in one market segment has not led to the Commission abandoning efforts to scale the program but rather in targeting improvement solutions to address that shortcoming while scaling efforts broaden the positive impacts seen in the pilot program.

However, a similar pathway is not contemplated for the DRAM in the PD despite the DRAM pilots showing enough positive results to justify scaling efforts, especially with the improvements proposed in the PD that address many of the shortcomings identified in the pilot. Any procurement mechanism or program will face issues and shortcomings that can be improved over time, and a similar mindset should be adopted when considering the next steps of DRAM.

Thus, in these comments, CESA offers the following recommendations regarding the DRAM as well as other issues addressed in the PD around baselines and automated demand response (“ADR”) policies:

- The Commission should approve the four-year continuation of the DRAM with larger budgets in Step 2, but if not, minimally authorize annual budgets of \$27 million across the three IOUs for 2019 to 2022.
- The contract capacity should be used for year-ahead qualifying capacity (“QC”) and may need to be used for resources with insufficient historical data.
- The “new market entrant” definition is too restrictive and should be modified to allow for entities with some “low” level of DR activity in California to qualify.
- Performance reporting should be done quarterly to better manage the administrative burden.
- The Commission should allow for the use of the Metering Generator Output (“MGO”) baseline.
- A path to potential eligibility for ADR control incentives for new technologies is needed to streamline access to these incentives as new technologies emerge.

II. THE COMMISSION SHOULD APPROVE THE FOUR-YEAR CONTINUATION OF THE DRAM WITH LARGER BUDGETS IN STEP 2, BUT IF NOT, MINIMALLY AUTHORIZE ANNUAL BUDGETS OF \$27 MILLION ACROSS THE THREE UTILITIES FOR 2019 TO 2022.

In proposing a four-year continuation of the DRAM, the PD adopted a “hybrid two-step approach” and explained that the Commission “agree[s] with SCE that it is reasonable to test targeted corrections and contract amendments that will address the more critical changes needed to ensure reliability of Auction Mechanism resources and improve performance inadequacies,...agree with the Providers that a start and stop approach does not present a solid regulatory foundation for the industry to flourish,...[and is] mindful of the concerns expressed by the Public Advocates Office and the Utilities that the Commission should put ratepayer protections

and reliability assurances above continuity concerns.”⁵ However, given the many critical improvements incorporated and potentially adopted in the PD, CESA believes that a superior two-step approach would be to move forward with larger budgets in Step 2 of the DRAM authorization in Years 3 (2021) and 4 (2022) of the extension. Concerns about the lack of scheduling in the day-ahead market and dispatch in the real-time market are reasonably addressed through improvement proposals in the PD, including around stronger penalty provisions and more frequent dispatch and test requirements (and less reliance on the must-offer obligation [“MOO”] option). After seeing how these improvements take effect in the Years 1 (2019) and 2 (2020), it is reasonable to then consider whether larger budgets could be supported in later years of this four-year authorization to continue the growth of the DR market with DRAM resources that are reliable and high-performing, with the goal of making DRAM a more mainstream and sustainable mechanism to procure for and operationalize third-party DR resources. CESA does not have a specific budget recommendation at this time for Years 3 and 4 but recommends that this question be scoped into the new DRAM evaluation plan and framework.

However, if the Commission approves the PD and agrees that a four-year continuation is reasonable where the current budget of the mechanism is “maintained”,⁶ CESA believes that maintaining the current budget would require doubling the proposed budget in the PD. Whether unintended or not, the PD would reduce the budget and reverse the market trajectory of the DRAM by adopting a \$13.5-million annual budget for the DRAM from 2020 to 2022, despite the DRAM Evaluation Report showing successful or mixed-success results for resources in the DRAM pilots. The program budget for the 2017 DRAM for 2018 and 2019 deliveries was \$13.5 million annually,

⁵ PD at pp. 30-31.

⁶ PD at pp. 9, 27, and 31.

but there was also an incremental budget authorization of \$13.5 million for a 2018 DRAM for 2019 deliveries. Across the DRAM III and IV pilots, \$27 million was the total amount authorized across all the IOUs for 2019 deliveries, which should be annual budget allocation, at minimum, for DRAM auctions in 2020 through 2022 in order to maintain the “current budget”. Otherwise, the Commission would be cutting the DRAM budget in half and, more importantly, would be reversing the market trajectory of the DRAM as a key sourcing and delivery mechanism for third-party DR resources.

Finally, the PD prorates the 2019 DRAM budget for 2020 deliveries on the basis that deliveries in 2020 would occur during the months of June through December. CESA disagrees with the PD and recommends that the Commission revise the 2019 DRAM budget to the same level as the annual budgets for 2020 through 2022. The PD assumes that each month has the same Resource Adequacy (“RA”) value but, in reality, the majority of the RA value for DR resources occur in the summer months from June through September. If the Commission opts to prorate the 2019 DRAM budget, it should be prorated to reflect the true value of deliveries in each of the months from June through December, which likely will not justify the ‘7 out of 12’ proration.

III. THE CONTRACT CAPACITY SHOULD BE USED FOR YEAR-AHEAD QUALIFYING CAPACITY AND MAY NEED TO BE USED FOR RESOURCES WITH INSUFFICIENT HISTORICAL DATA.

The PD proposes to use historical data wherever possible to establish an *ex ante* forecasting method to validate the accuracy of the capacity claimed on the year-ahead and month-ahead supply plans.⁷ CESA does not necessarily oppose the use of historical data to validate QC in supply plans but is concerned about the use of this method when resources do not have sufficient historical

⁷ PD at pp. 25 and 49-50.

reference data. The PD addresses such situations by referencing “suitable publicly available performance data that best represents the anticipated performance of the resource.”⁸ For new technologies or even relatively recent technologies such as energy storage and EV charging resources, CESA suspects that it may be very difficult to find any or enough reference performance data that also reflects the customer class mix in order to assess how past performance from “similar resources” can validate the QC in the IOUs’ supply plans. In such cases, CESA first seeks clarity and more details on this methodology but also recommends the use of contracted capacity when past performance data from similar resources is insufficient for use to establish QC. For year-ahead QC, CESA recommends a simpler and consensus-based proposal from the Supply-Side Working Group to use contracted capacity. For month-ahead QC, contracted capacity or some methodology to estimate load reduction potentials could be used, along with potential penalties and default provisions for significant deviations between the month-ahead QC and demonstrated capacity (“DC”), until sufficient historical reference data is collected. Penalty structures would ensure that DRPs do not unreasonably overestimate their QC in the month-ahead showings.

Meanwhile, for DC invoicing, CESA supports the PD in proposing to adopt a penalty structure similar to the one used in the Capacity Bidding Program (“CBP”), which is reasonable and represent a major improvement to incentivize greater reliability and performance from DRAM resources.⁹ Additionally, CESA supports the proposed default provisions as well as the requirement for DC invoicing to be based on a capacity test or market dispatch in at least six months of a 12-month contract term,¹⁰ thereby limiting the use of the must-offer obligation option.

⁸ PD Appendix A at p. 1.

⁹ PD at p. 55.

¹⁰ PD at p. 62 and Appendix B at pp. 1-2.

Altogether, these proposals should provide the IOUs and the Commission with greater assurances that ratepayers are paying for real and available capacity.

IV. THE “NEW MARKET ENTRANT” DEFINITION IS TOO RESTRICTIVE AND SHOULD BE MODIFIED TO ALLOW FOR ENTITIES WITH SOME “LOW” LEVEL OF DEMAND RESPONSE ACTIVITY IN CALIFORNIA TO QUALIFY.

The PD replaces the 20% residential set-aside with a 10% set-aside for new market entrants, defined as a DRP that has not had any business arrangement with any of the IOUs during the three years prior to a new DRAM solicitation involving any form of DR.¹¹ CESA commends the Commission for proposing to adopt a 10% set-aside for new market entrants, which will continue to support innovation and opportunities that fosters a robust third-party DRP marketplace while still ensuring the majority of DRAM procures and delivers competitive and market-efficient resources. Though supportive of the set-aside, CESA is concerned that the proposed definition for “new market entrant” is too restrictive and may lead to very few or no DRPs qualifying as a new market entrant. Experience in other DR programs and/or local capacity requirement (“LCR”) DR contracts do not necessarily translate to an understanding of how to procure, dispatch, and operate third-party DRAM resources. Similarly, even for DRPs who have had some experience with DRAM, there is a learning curve associated with procuring, dispatching, and operating DRAM resources, such that the DRAM evaluation report, for example, indicated a “mixed but improving record in aggregating resource capacity on Supply Plans and making this capacity available in the wholesale market via Demonstrated Capacity.”¹²

Relatively new DRPs who have dabbled or have had some level of experience in either DRAM or non-DRAM programs and contracts should be given opportunities to access this new

¹¹ PD at p. 41.

¹² PD at p. 14.

market entrant set-aside to benefit from the same learning opportunities where DRPs can learn and improve performance over time. Importantly, these new market entrants would not have a ‘free pass’ with guaranteed market opportunities, given the performance requirements and penalties in place as well as cost caps to ensure a certain level of competitiveness of solicitation bids, but a more accessible set-aside would ensure that new DRPs have a pathway to becoming competitive and high-performing DRPs in future DRAM opportunities. As such, CESA recommends that “new market entrant” be defined as a DRP that have had less than 1-MW level of business arrangements with any of the IOUs during the three years prior to a new DRAM solicitation involving any form of DR. In adopting CESA’s modification to the definition, DRAM will better encourage new participation in the DR market as the Commission intended.

V. **PERFORMANCE REPORTING SHOULD BE DONE QUARTERLY TO BETTER MANAGE THE ADMINISTRATIVE BURDEN.**

The PD would require that all DRPs to submit monthly performance reporting to the Commission Energy Division to support the monitoring of DRAM resources.¹³ CESA supports greater transparency and timely insights into resource acquisition, registration, and performance, but DRPs are likely to find the monthly reporting requirements to be overly burdensome without providing material benefit to the Commission. It is unclear whether the Commission Energy Division will have the analytical power to review monthly data, which may be better accomplished through the independent evaluator who can then share their analysis with the Commission, and the month-by-month insights are unlikely to lead to actionable data since the Commission may wish to see trends over longer periods of time to take action or make modifications to the DRAM. Instead, CESA recommends quarterly performance reporting requirements that reduces the

¹³ PD at p. 70.

administrative burden on DRPs and balances the need for the Commission to attain and process timely but potentially more actionable data. Finally, if performance data are to be publicly released, only anonymized and aggregated data should be published.

VI. THE COMMISSION SHOULD ALLOW FOR THE USE OF THE METERING GENERATOR OUTPUT BASELINE.

The PD determined that the MGO baseline should not be adopted by the Commission for retail settlement at this time, explaining that the implementation issues raised by the utilities would not just apply for current DR models.¹⁴ CESA urges the Commission to reconsider the use of this baseline for settlement of DR resources with storage resources behind the utility meter. MGO baseline methodologies are in use now for DR aggregations with energy storage resources for settlement at the California Independent System Operator (“CAISO”), and the use of the MGO methodology is also key for MUAs of behind-the-meter (“BTM”) energy storage resources and electric vehicle supply equipment (“EVSEs”) providing both wholesale and retail services.¹⁵ CESA contends that some of the implementation issues raised by the three IOUs are not unique to the MGO methodology. CESA disagrees with the contention that the DR proceeding is not an appropriate place to approve the MGO baseline and that proper consideration requires a new proceeding with multiple tracks. DR capacity settlement is based on wholesale market settlement. The MGO baseline was adopted by CAISO in the Energy Storage and Distributed Energy Resources (“ESDER”) Phase 1 Initiative for the explicit purpose of measuring the performance of DR resources with storage. Thus, to disallow use of the MGO baseline creates a marked

¹⁴ PD at p. 75.

¹⁵ See Chapter 1 of *Compliance Report of Southern California Edison Company (U 338-E), Pacific Gas and Electric Company (U 39 E) and San Diego Gas & Electric Company (U 902-E) on Behalf of the Multiple-Use Application Working Group* submitted on August 9, 2018 in R.15-03-011 at pp. 1-28. <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M233/K836/233836260.PDF>

disadvantage for DR participants that employ BTM storage resources, thereby discriminating against those resources. There is no reason why other DR baselines approved by the Federal Energy Regulatory Commission (“FERC”) may be used for DR capacity settlement but the MGO cannot.

VII. A PATH TO POTENTIAL ELIGIBILITY FOR AUTOMATED DEMAND RESPONSE CONTROL INCENTIVES NEW TECHNOLOGIES IS NEEDED TO STREAMLINE ACCESS TO THESE INCENTIVES AS NEW TECHNOLOGIES EMERGE.

The PD proposes to maintain the current ADR policy that battery storage controls are not eligible for ADR control incentives based on working group and workshop discussions that revealed how battery storage providers are not interested in ADR control incentives, favoring instead increased opportunities to ‘stack’ value, change rate structures, and improve DR program designs. The PD also reasons that there are challenges related to determining the incremental portion of the equipment costs that are not funded through other programs.¹⁶ CESA does not disagree with the PD on its determinations and rationale given the lack of evidence or record at this time, even as we continue to believe that there may be battery storage resources not controlled through the cloud that would potentially benefit from ADR control incentives.

However, CESA recommends that the Commission establish a process by which new technologies have a streamlined pathway to potential eligibility for new technologies. Beyond battery storage resources, there are a wide range of energy storage resources and other distributed energy resources (“DERs”) that could also warrant consideration for ADR control incentive eligibility, similar to what was done for battery storage controls but in a much more streamlined and systematic way. For example, electric water heaters (“EWHs”) with smart and Open ADR

¹⁶ PD at pp. 83-84.

compliant controls represent a new energy storage technology that is distinct from battery storage resources today in that many installed EWHs would otherwise operate as pre-installed thermal batteries that mostly sit idle and are not grid interactive. A clearer set of eligibility criteria and a streamlined potential pathway for eligibility should be established as new technologies such as smart-controlled EWHs come onto the market. Rather than waiting for new technologies to enter the marketplace¹⁷ and then go through a year-long working group and workshop process for eligibility, as done for battery storage, CESA instead recommends that the Commission establish a responsive program design that establishes clearer eligibility criteria and a streamlined procedural pathway (e.g., program appeals, Tier 2 Advice Letter approval) to get approval for ADR eligibility of new technologies. In doing so, new and emerging technologies, if determined to be eligible, will be able to gain access to ADR control incentives in a timely fashion.

VIII. CONCLUSION.

CESA appreciates the opportunity to submit these comments to the PD and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



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¹⁷ D.18-11-029, *Decision Resolving Remaining Application Issues for 2018-2022 Demand Response Portfolios and Declining to Authorize Additional Demand Response Auction Mechanism Pilot Solicitations*, issued on November 29, 2018 at Findings of Fact 80, 81, and 82.
<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M296/K255/296255741.PDF>