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 Application 17-01-019

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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 this response to the *Administrative Law Judge's Ruling Directing Responses to Questions Regarding the Demand Response Auction Mechanism Pilot* ("Ruling"), filed by Administrative Law Judge ("ALJ") Kelly A. Hymes on August 6, 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 appreciates the Commission's efforts to evaluate the Demand Response Auction Mechanism ("DRAM") pilots, which serve as a look into the future of how demand response ("DR) resources are procured and delivered into the California Independent System Operator ("CAISO") market. These pilots represent important learning opportunities to determine whether the DRAM should be the mechanism going forward for third-party demand response providers ("DRPs") to engage customers in managing their retail bills while also providing valuable grid services. However, given that the Commission has only partially completed its evaluation of the DRAM pilots, the Commission is faced with the question of what to do with the DRAM since complete evaluation of the pilots will be necessary to make any determination on the viability of DRAM as California's DR model of the future. In the meantime, the Commission must consider the merits of stopgap measures such as an additional DRAM pilot auction that could be worthwhile to advance additional learning opportunities while continuing to foster a competitive and active marketplace for third-party DRPs.

CESA supports the Commission's continued efforts to complete the DRAM pilot evaluation but also finds that there is sufficient merit to continue with an additional DRAM auction, with modifications, to incorporate recent lessons learned and iterate further to attain additional insights into how DRAM could be modified and positioned to serve as a 'mainstream' DR procurement and participation model for the future. Our views are elaborated further below.

II. THE DRAM PLAYS A VITAL ROLE IN FOSTERING A COMPETITIVE MARKETPLACE FOR SUPPLY-SIDE DEMAND RESPONSE AND IN DELIVERING COST-COMPETITIVE DEMAND RESPONSE SERVICES.

CESA notes that the supply-side integration of DR resources remain has been an important pathway for the state to procure the least-cost DR resources, as opposed to a (previous) world where DR resources were primarily procured through utility DR programs, which are subject to administrative cost-effectiveness tests and do not necessarily select the most market-competitive DR resources. By its structure, DR resources 'procured' through programs may not deliver grid services that are as price-dispatchable or flexible, nor allow for market competition to drive down costs. By contrast, with a properly structured auction that values the right capabilities and grid services, a DRAM-like procurement vehicle and market participation pathway should generate a least-cost portfolio of DR resources that reliably and flexibly participate in the CAISO markets.

As demonstrated in the DRAM Interim Evaluation Report, there are important benefits to the DRAM in engaging a broader range of customers, with 74% to 95% of customers participating in DRAM in 2016 and 2017 that had never participated in an IOU DR program in California previously.[2] With the Commission intent on more broadly and better engaging low-income and disadvantaged community ("DAC") customers through DR programs, as evidenced by the Commission Staff Proposal,[3] the DRAM was also shown to be effective in increasing participation from this underserved but very important customer segment. In addition to engaging a broad range of customers, the DRAM is also important in more deeply engaging customers in providing grid services through contracts and regular must-offer obligations, as opposed to voluntary response to retail rates. For customers willing and able to provide such a firm and regular load response, the DRAM represents an important vehicle to enable such behaviors. Finally, CESA adds that, without the DRAM, there may be limited DR opportunities for certain customer segments, such

[2] DRAM Interim Evaluation Report, p. 50.

[3] *Administrative Law Judges' Ruling Requesting Responses to Questions*, filed on June 15, 2018, pp. 3-4 and Attachment A: Assigned Commissioner's Office Proposal for Demand Response Pilot Plans to Benefit Disadvantaged Communities

as residential customers, which are ineligible for most DR programs other than the Capacity Bidding Program ("CBP") for Pacific Gas and Electric Company ("PG&E") customers.

Thus, the DRAM is important to engage a broader range of customers and to have these customers more deeply and reliably engaged (who otherwise may not participate in providing DR services) and represents one of the Commission's goals in bifurcating the DR market into supply-side and load-modifying DR resources, pursuant to D.14-03-026.

III. RESPONSES TO QUESTIONS.

Below, CESA provides its responses to questions posed in the Ruling.

Question 1: In the absence of completed evaluation results, what are policy reasons that the Commission should approve another year of the Pilot (a 2019 auction with 2020 deliveries) in lieu of a complete evaluation?

CESA believes that there is sufficient policy basis for the Commission to approve an additional auction for longer-term deliveries during the time it takes for the Commission to complete the evaluation and consider long-term policy changes in response to the evaluation. CESA supports an additional auction because it provides great market certainty for third-party DRPs and provides additional learning opportunities for the Commission, investor-owned utilities ("IOUs"), and third-party DRPs. Previously, in approving DRAM IV, the Commission found it reasonable to direct an additional 2018 auction for 2019 delivery for the following reasons:[4]

> "1) the limited opportunities for third party providers in 2019, 2) to support the market for competitive demand response while the Commission determines how demand response will be procured in the future, 3) the opportunity to gain further evidence on whether the third party demand response provider market may be consolidating or has been stymied by limited opportunities, and 4) the opportunity incorporate into the Pilot design and test procurement guidelines for a permanent

[4] *Decision Adopting Steps for Implementing the Competitive Neutrality Cost Causation Principle, Requiring an Auction in 2018 for the Demand Response Auction Mechanism, and Establishing a Working Group for the Creation of New Models of Demand Response*, D.17-10-017, issued on November 1, 2017, pp. 35-36.

demand response auction mechanism that the Commission adopted in D.16-09-056."

CESA believes that the same guidance from D.17-10-017 can be used to justify an additional auction in 2019.

First, outside of the DRAM, there may still be limited opportunities for third-party DRPs to provide competitive supply-side DR resources. While there are utility DR programs and all-source solicitations that may engage customers in many of the same ways, the DRAM presents an opportunity for third-party DRPs to innovate and compete, with this competition driving a broader range of cost-competitive customer engagement in DR portfolios. A large marketplace of DRPs that includes both utility and third-party DRPs is vital to this end. Having a DRAM also creates a marketplace for engaging retail customers in providing reliable grid services, as all-source solicitations may present limited opportunities for DR resources to be procured. For example, several behind-the-meter ("BTM") energy storage projects have been selected in all-source Local RA capacity solicitations, such as the 2013 Local Capacity Requirements ("LCR") Request for Offers ("RFO") and the Second Preferred Resources Pilot ("PRP") RFO of Southern California Edison Company ("SCE"). These non-exporting energy storage projects deliver their contracted Local RA capacity as DR services, which, at face value, may suggest that the DRAM may not be entirely necessary and that all-source solicitations present future opportunities. However, the Second PRP RFO is also a pilot, and it is not entirely clear whether BTM energy storage resources would have been selected in the 2013 LCR RFO if not for the customer-domain energy storage procurement targets set under D.13-10-040, which allowed SCE to simultaneously address a compliance requirement and a local reliability need. Additionally, CESA is unaware of robust procurement of DR resources in all-source solicitations at the moment. Further, the growing body of regulatory work regarding 'incrementality' is also informing market participants, who, in turn, build expertise is developing resources with appropriate incrementality. Thus, CESA believes it is prudent to maintain the viability of DRAM and continue to improve upon this dedicated mechanism until there is some market signal outside of DR-specific procurement and programs that indicate that there are external opportunities elsewhere. Otherwise, CESA finds that the only other very predictable opportunity for third-party DRPs are through participation in utility-administered DR programs, which are subject to administrative cost-effectiveness evaluations as opposed to cost-competitive procurements.

Second, an additional auction would send an important market signal to third-party DRPs that the Commission supports the DRAM as a potential procurement and contracting mechanism for supply-side DR going forward. As the Commission continues its DRAM pilot evaluation, an additional DRAM auction would support the market for competitive DR in the interim. The uncertain nature of a pilot combined with the short-term and small-scale extensions of the DRAM creates uncertainty for third-party DRPs – many of which are early-stage startups – to determine whether to build financeability and invest their limited resources into pursuing customers and DR opportunities in California. A policy signal is needed that the Commission is intent on continuing to improve the auction design and to address market participation barriers for the DRAM to make it a mainstream mechanism and thereby to encourage more DRPs to invest in California. This can be achieved by continuing the DRAM on a trajectory toward mainstream viability while fixing some of the challenges and barriers faced by DRPs in the DRAM. By denying an additional auction, DRPs may perceive this as a signal that it is not worthwhile to continue their efforts in California, as the future of DRAM becomes overly uncertain.

One way to provide this market and policy signal is to conduct a 2019 DRAM auction for Resource Adequacy ("RA") contracts for three-plus years, with deliveries between 2020 and 2022, or beyond. According to the DRAM Interim Evaluation Report, much of the DRAM resources have demonstrated their ability to aggregate and deliver the contracted RA capacity to the CAISO market, though performance varies to some degree by DRP. By lengthening the term of the additional DRAM contracts, CESA believes it will encourage greater DRP participation in the auction, which may not be the case if the additional auction is structured as just another pilot year with the same DRAM structure and design. DRPs will also be further encouraged to invest in the upfront costs to develop the IT systems and platforms to integrate and communicate with the CAISO and IOU systems, while also potentially informing the Commission on whether and how well DRAM resources could perform under multi-year obligations, which also happens to align with the Commission's development of a Multi-Year RA Framework in the RA proceeding (R.17-09-020).

Third, an additional auction may present incremental learning opportunities to support the Commission's assessment of the DRAM as a longer-term procurement and contracting vehicle. The four rounds of pilots provide important insights but may not provide the same lessons learned as testing DRAM resources under real-world obligations and conditions. CESA provides more detail on potential enhancements to the DRAM that would also present additional learning opportunities in our responses to Questions 3-5.

In considering an additional auction, CESA recognizes that there are timing considerations to account for Commission and stakeholder processes to modify the auction design and DRAM contracts (as recommended above) and authorize the budget, size, and duration of the next DRAM. Following these Commission processes, the IOUs would then need to conduct a solicitation and select auction winners. Thus, if the additional auction is not completed by April or May 2019 with Commission approval of the selected contracts by June or July 2019, there are risks that the contracted DRAM may not be able to adequately secure the customers to aggregate the contracted capacity by the IOUs' year-ahead RA showing deadline in October 2019. A near-term Commission decision in the next couple months approving an additional auction will therefore be important to ensuring the success of an additional auction. Even if the Commission Energy Division staff complete the DRAM pilot evaluation by Q4 2018, a determination on whether an additional auction will be needed will likely need to be determined prior to the conclusion of the planned evaluation timeline. So, to ensure a timely and successful additional auction, the Commission may need to make a near-term decision on whether to conduct an additional auction to advance further learning opportunities and to continue cultivating the DR marketplace – an outcome that may not be achieved with a gap in DRAM opportunities in 2019.

Thus, on the basis of continuing to keep open competitive DR opportunities for third-party DRPs, provide market certainty to DRPs, and seek additional learning opportunities to inform the determination on the permanence of DRAM, CESA recommends that the Commission move forward with an additional longer-term auction in 2019. This adheres to the policy justification provided in D.17-10-017 for DRAM IV, as well as other previous decisions that made similar determinations to conduct the DRAM II and DRAM III.

<u>Question 2</u>: What are policy reasons that the Commission should deny another year of the Pilot?

As noted in our response above, CESA believes that there is sufficient policy basis for conducting an additional auction. CESA understands the reasons to deny another year of a pilot *if* there are no new learning opportunities from conducting the *exact same* pilot. Indeed, there may be limited learning benefits from repeating the same auction without material modification of the auction design or performance obligations.[5] Thus, CESA's position is that the additional auction can be materially modified to test for important learning outcomes that determine whether DRAM resources can effectively perform as RA resources and whether the DRAM can serve as a mainstream procurement and contracting mechanism.

During the Commission workshop on July 26, 2018, the IOUs indicated that they do not yet have the data from the evaluation or the visibility into the DRAM resources to determine whether DRAM resources are performing reliably for measurable grid benefit. However, this assessment will be completed through the Commission's DRAM pilot evaluation, and CESA believes that greater and real reliability obligations placed on DRAM resources in the next auction should incentivize greater performance and provide the IOUs with greater confidence in the reliability of the DRAM product. Additionally, PG&E explained that it has no RA need at this time, leading to a negative value for the RA capacity of DRAM resources it procured and leading to its position that no additional DRAM auctions should be conducted at this time. While that may be the case at the moment, the lack of current-year RA need is correlated with the one-year contract structure for DRAM pilots. With an additional auction for multi-year DRAM contracts, CESA believes that the DRAM resources may present potential positive RA capacity value when RA needs are assessed over a longer time horizon, especially considering certain local areas may face RA capacity needs given the economic retirement of thermal generation units.

<u>**Question 3**</u>**: What problems or issues occurred with the solicitation step of the Pilot (including bid submission and evaluation) and what changes to the Pilot could correct these problems? The recommended corrections must be quickly implementable (within 90 days of a decision), cannot require**

[5] At the same time, CESA notes that there may be some insights gained by seeing how resolving some of the CAISO market integration issues and customer data access and acquisition issues may impact some of the evaluation criteria. Presumably, the Commission may see greater success in the DRAM as DRPs will not only gain more experience in contracting and delivering RA capacity but also as DRPs are no longer faced with major market participation barriers.

evidentiary hearings (no disputed facts), and should keep in mind any budgetary implications (see questions 6 and 7 below.

There may be additional learnings from modifying the solicitation evaluation criteria for DRAM resources in the next auction, if approved by the Commission. An auction is effective in procuring and contracting for the least-cost resources, but it may overlook the capabilities of certain DRAM resources to perform at a higher level when the solicitation evaluation criteria do not appropriately account for and quantify these capabilities. For example, the DRAM Interim Evaluation Report highlighted how certain DRAM resources and DRPs had higher performance in contracting and aggregating customer DR capacity into supply plans and had higher performance in dispatching DRAM resources with short notification periods, including in the real-time market. There may be added learning opportunities for the Commission to consider changes to the procurement stage of the DRAM to identify ways to better value these higher performing capabilities.

The Commission may also wish to modify the auction design around a 'pay as cleared' structure as opposed to the current 'pay as bid' structure, which may facilitate greater market transparency into the capacity prices for DRAM resources. Such a structure is designed to provide more efficient pricing and participation through the bidding of marginal prices. The CAISO uses marginal 'cleared' pricing for this reason in its energy markets. However, for DRAM resources targeted toward capacity-constrained local areas, there may be concerns about making such information public due to market competitiveness reasons, as the DRAM is not currently structured to target DRAM resources exclusively in a specific local area. This issue will need to be addressed if the additional auction takes a 'pay as cleared' approach.

<u>Question 4</u>: What problems or issues occurred with the contracting step of the Pilot (including contract termination and re-assignment) and what change(s) to the Pilot could correct these problems? The recommended

corrections must comply with the caveats presented above in question three.

CESA does not find the contract termination trends for some DRAM contracts to be a major issue, so long as the terminated contracts are then re-assigned to other DRPs that are able to fulfill the terms of the DRAM contract. According to the DRAM Interim Evaluation Report,[6] the Commission Energy Division staff raised this as an issue of market concentration, but some of these termination and re-assignment trends may be mitigated through improvements to other aspects of the DRAM, such as greater ease in registering with the CAISO, improvements in the solicitation step to identify viable and high-performing DRPs, and IT solutions to more seamlessly access customer data. CESA views the termination and re-assignment of DRAM contracts as akin to how other RA resources are subject to replacement rules if unable to fulfill and deliver on their RA obligations. Similarly, as long as the RA capacity is delivered, regardless of who the counterparty is to the DRAM contract, this outcome should provide some assurance to the Commission that there is a liquid market for DRAM resources to 'transact' these contractual obligations to ensure delivery of the RA capacity.

Question 5: What problems or issues occurred with the performance step of the Pilot and what change(s) to the Pilot could correct these problems? The recommended corrections must comply with the caveats presented above in question three.

To truly become a mainstream mechanism, DRAM resources must eventually be subject to real RA obligations, penalties, and performance requirements, similar to all other RA resources. CESA understands that the DRAM pilot resources were subject to must-offer obligations but were not exposed to real penalties, such as through the RA Availability Incentive Mechanism ("RAAIM"). This exemption may have been appropriate for the early pilot years as the

[6] DRAM Interim Evaluation Report, pp. 32-34.

Commission sought to attract greater participation in the pilots[7] and DRAM resources needed to demonstrate whether the contracted capacity could be provided in the 60-day supply plans and reliably delivered into the day-ahead CAISO markets during the Availability Assessment Hours ("AAHs"), but it may now be appropriate to get rid of the 'training wheels' and see if DRAM resources can truly perform under the RA obligations faced by all other RA resources and have their performance tested during CAISO dispatch events. This was the intent of D.16-09-056 to assess whether DRAM resources could eventually be subject to the same penalty structures as other non-DRAM RA contracts.[8] Similarly, it may be appropriate to subject DRAM resources for the IOUs to validate the performance of DRAM resources prior to their inclusion in the monthly RA through CAISO testing and Load Impact Protocols ("LIPs"), similar to other DR resources that receive RA capacity. The details of these testing protocols and the timing of the process should be discussed prior to implementation in the next DRAM auction.

Overall, CESA supports subjecting DRAM resources procured in the 2019 auction to greater reliability obligations to truly test whether these resources can serve as mainstream RA resources for the IOUs to meet their grid reliability needs. However, with the recent pilots alone, it is not entirely clear that the Commission can be assured of that. The pilots provided valuable insight into the procurement and contracting of DRAM resources, but a further assessment on the performance of these resources under real-world market and contractual conditions is still needed, thus justifying the need for an additional auction. The Commission Energy Division staff echoed

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[7] *Resolution E-4728. Approval with Modifications to the Joint Utility Proposal for a Demand Response Auction Mechanism Pilot Pursuant to Ordering Paragraph 5 of Decision 14-12-024*, issued on July 27, 2015, p. 16.

[8] *Decision Adopting Guidance for Future Demand Response Portfolios and Modifying Decision 14-12-024*, issued on October 5, 2016, p. 68.

these sentiments in stating that the "consistent imposition of Resource Adequacy penalties on DRPs failing to meet contract obligations could help in reducing under-performance, assuming IOU and CAISO systems are functioning properly."[9]

Question 6: If the Commission approves another year of the Pilot, what budget amount should the Commission authorize and why? In particular, address the modifications needed on requirements for demonstrated capacity and resource adequacy compliance, and modifications needed to ensure performance reliability in the California Independent System Operator's markets.

CESA recommends that an additional 2019 auction be held for the same *annual* budget amount, but given that CESA's recommendation is to contract DRAM resources in the 2019 auction for three or more years, the total budget amount across the lifespan of the DRAM contracts should be commensurate with the added years. In line with our views on sending an important signal to DRPs, the additional auction should either maintain or continue the upward trajectory of procurement and contracting through the DRAM. Given the long-term uncertainty of the DRAM due to the pending evaluation, CESA recommends maintaining the same annual budget previously authorized for DRAM resources.

Question 7: What cost recovery approach should the Commission implement and why?

CESA has no recommendations on the cost recovery approach at this time but supports the Commission using a cost recovery approach that would allow for the continued upward trajectory of the DRAM market, as noted in our response to Question 6.

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[9] DRAM Interim Evaluation Report, p. 80.

IV. **CONCLUSION.**

CESA appreciates the opportunity to submit response to the questions posed in the Ruling and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,

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