

**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 FINAL REPORT OF THE DEMAND RESPONSE AUCTION MECHANISM
WORKING GROUP AND RESPONSES TO APPENDIX C QUESTIONS FROM
DECISION 19-07-009**

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) and pursuant to Ordering Paragraph (“OP”) 14 of Decision (“D.”) 19-07-009, the California Energy Storage Alliance (“CESA”) hereby submits these comments to the *Final Report of the Demand Response Auction Mechanism Working Group* (“Step 2 Report”), published on August 9, 2019, along with our responses to the questions posed in Appendix C of D.19-07-009, issued on July 11, 2019.

I. INTRODUCTION.

CESA appreciates the opportunity to participate in the Demand Response Auction Mechanism (“DRAM”) working group, which focused on several key ‘Step 2’ improvement areas and was productive in developing proposals for the Commission’s consideration and adoption. While these working group discussions have been helpful, CESA cautions the Commission from adopting too many substantive changes at once, especially as the ‘Step 1’ changes from D.19-07-009 have yet to take effect and could turn out to address some or the concerns expressed in the

DRAM Evaluation Report. For example, the more frequent testing and dispatch requirements to validate demonstrated capacity and more stringent penalties for sub-par demonstrated capacity should create major incentives for demand response providers (“DRPs”) and their DRAM resources to perform with greater reliability. At the same time, CESA supports the continued discussion on several Step 2 improvements, including around how the Commission and investor-owned utilities (“IOUs”) can extract and be assured of greater value from DRAM resources through more frequent energy dispatch (while not discriminating against DRAM resources for fulfilling Resource Adequacy (“RA”) capacity-roles). In these comments, CESA responds to questions posed in Appendix C of D.19-07-009 while making the following key points:

- Instead of minimum dispatch hours, DRAM participants should be required to submit bid data to the Commission for a reasonableness assessment.
- Voluntary bid parameters should be further explored to assess expected energy in the auction bid selection process.
- Cost-effectiveness should continue to be assessed on an *ex ante* basis in the solicitation bid evaluation stage.
- Contract reassignment and partitioning should be allowed with disincentives for perverse outcomes through qualitative bid evaluation criteria.

II. INSTEAD OF MINIMUM DISPATCH HOURS, DRAM PARTICIPANTS SHOULD BE REQUIRED TO SUBMIT BID DATA TO THE COMMISSION FOR A REASONABLENESS ASSESSMENT.

CESA understands the Commission’s concerns around the low dispatch rate of DRAM resources, as highlighted in the DRAM Evaluation Report. The Department of Market Monitoring (“DMM”) also presented data on how Proxy Demand Resource (“PDR”), including those from DRAM, may not always bid economically, even as the locational marginal prices (“LMPs”)

cleared above the net benefits test (“NBT”).¹ To address this, the Commission staff proposed a ‘floor’ for dispatch activity as a proxy for economic bidding and to deliver some minimum energy requirement from DRAM resources. Variations of the minimum dispatch requirement was proposed in the Step 2 Report, including minimum dispatch hours at a certain price and minimum dispatch hours at a certain condition.²

However, such a minimum energy requirement runs counter to requirements for any other RA-only resources, as Pacific Gas and Electric Company (“PG&E”) noted.³ RA resources are only required to meet their must-offer obligations while having the California Independent System Operator (“CAISO”) optimize the dispatch based on energy bids submitted into its day-ahead and real-time markets. Guaranteeing a minimum number of dispatches is also difficult given the dynamics of the wholesale market (*e.g.*, other bidding resources, market clearing prices not reflecting grid need) and the potential challenges of resources being scheduled in the market despite economic bidding of the DRAM resource at its marginal costs. Importantly, the Commission produced data analysis of how net load peak conditions did not correlate as strongly as expected with day-ahead market prices ($R = 0.46$), which in part explains the more limited scheduling and dispatch of DRAM resources operating under previous 12pm to 6pm availability assessment hours (“AAHs”) when solar generation is high and LMPs are consequently low. CESA also agrees with PG&E that verifying “competitive bidding” could be administratively

¹ *2018 Annual Report on Market Issues & Performance* published by the Department of Market Monitoring in May 2019 at pp. 42-45.

<http://www.caiso.com/Documents/2018AnnualReportonMarketIssuesandPerformance.pdf>

² Step 2 Report Appendix A at p. 8.

³ *Ibid* at p. 9.

burdensome and challenging.⁴ Furthermore, the Commission should allow the recent changes in D.19-07-009 to take effect before adding an additional energy-related requirement.

Instead, CESA supports PG&E's recommendation to have DRAM participants submit bidding data and information to the Commission as part of the quarterly performance reporting requirement adopted in D.19-07-009⁵ in order to assess the reasonableness of bids and have DRPs provide a rationale for the marginal costs of their bids. This recommendation is more easily implemented and would allow the other Step 1 improvements adopted in D.19-07-009, such as increased and more stringent testing and dispatch requirements, to play out, which may prove effective in increasing the performance and reliability of DRAM resources. Ideally, this monitoring role would be conducted by an independent third-party monitor equipped with the technical expertise to assess the reasonableness of bids while protecting confidentiality of market-sensitive data, but D.19-07-009 rejected this proposal at this time because of insufficient data on the costs of contracting for such a role.⁶ Consequently, the Commission appears to be in the best position to assume this role, especially given the quarterly performance reports already being submitted to the Commission and the Commission's ability to protect market-sensitive information. The IOUs, however, should not assume this role.

While this reporting recommendation is more easily implementable and administratively simpler, quarterly reporting of bid data can be burdensome for both the Commission and the DRAM participant given the mountains of data that would need to be submitted and assessed. To make this more manageable, CESA recommends that a reduced reporting burden/requirement be established for 'good actors' who have not raised any flags for a certain period of time related to

⁴ *Ibid* at p. 10.

⁵ D.19-07-009 at p. 76.

⁶ *Ibid* at p. 52.

uneconomic bidding that are not tied to their true marginal costs – *e.g.*, less frequent audits of a sampling of DRAM resources – while maintaining a more frequent (quarterly) monitoring and reporting requirement for ‘bad actors’ who raise concerns with their bidding behavior. This focus on bad actors represents a more prudent use of the Commission’s time and resources to ensure the DRAM as a whole achieves its objectives. Any concerns of withholding are also reviewed by DMM, which should provide additional assurances against anti-competitive activities.⁷

III. VOLUNTARY BID PARAMETERS SHOULD BE FURTHER EXPLORED TO ASSESS EXPECTED ENERGY IN THE AUCTION BID SELECTION PROCESS.

Rather than prescribing minimum energy dispatch hours or trigger prices, CESA supports further exploration of voluntary bid parameters to better achieve the Commission’s intent of greater scheduling and dispatch from DRAM resources. This idea was explored in some ways in the working group when stakeholders discussed capping energy bids at some percentage of the CAISO’s \$1,000/MWh bid cap,⁸ but instead of setting a mandatory bid cap for all DRAM resources, as CESA understands the proposal, CESA believes a better idea to explore would be a voluntary bid cap for DRAM resources that are willing to impose a CAISO market bid cap on their resources to provide greater assurances and certainty of energy delivery, which can then be quantified and valued in the DRAM solicitation process and lead to higher rankings for resources that can be estimated to provide some assurances of some level of energy dispatch despite higher bid-in capacity costs.

A voluntary bid parameter is appealing to CESA for many reasons:

⁷ CESA understands that Phase 4 of the Energy Storage and Distributed Energy Resources (“ESDER”) Initiative is contemplating market power mitigation measures for energy storage resources at this time. However, any market power mitigation rules may take some time to be figured out and developed and likely will not be implemented in time for DRAM resources.

⁸ Step 2 Report Appendix A at pp. 10-14.

First, it would allow the IOUs to assess expected energy from a DRAM resource based on its market forecasts for energy, where the IOUs already create such forecasts for competitive solicitations elsewhere for other resource needs and services. If a DRAM resource commits to a self-imposed \$500/MWh bid cap in the solicitation process, the IOUs should be able to quantify the expected energy value based on forecasted energy prices. With a different DRAM resource committing to a lower \$400/MWh bid cap, the IOUs should be able to expect even higher energy value, and so forth. Even as energy price forecasts are subject to uncertainty, DRAM is a short-term one-year capacity procurement mechanism where expected average energy prices can be reasonably predicted given that the resource mix on the grid does not change substantially across one year; by contrast, other solicitations calculate this expected energy value from resources over a long-term period where the resource mix can change substantially and affect future energy prices accordingly. Furthermore, CESA believes that the DRAM should remain a capacity-only product, where the IOUs are not expected to buy and contract for the energy under the DRAM agreement but rather the expected energy would be incorporated into the cost-effectiveness assessment of DRAM resources to determine additional ratepayer benefit from these resources.

Second, the voluntary nature of the bid parameter would drive competition and allow different types of DRAM resources to reflect their variable costs, whereas an across-the-board bid cap would be assuming the same variable costs for all DRAM resources. Some energy storage resources, for example, may have higher fixed capital costs but lower and more stable variable costs due to a separation between customer and storage load, leading to reduced or minimal attrition effects on customer comfort, production activities, or other host customer needs. Given these characteristics, energy storage resources may be more willing to voluntarily commit to a bid cap. By contrast, other DRAM resource types may have more dynamic variable costs where a

voluntary bid cap is not possible or only possible at higher energy prices. Further, this voluntary bid parameter should be developed on a month-by-month basis to better reflect the different forecasted energy prices in the CAISO market and reflect the weather-sensitivity of DRAM resources. Energy storage resources are also subject to weather-sensitive loads that can limit how much customer load can be reduced, even as the storage resource is sized for customer peak capacity. Overall, flexibility in self-imposing and bidding in a bid cap parameter allows different DRAM resource types across different times of the year to reflect their variable costs more appropriately and accurately, as compared to a universally-applied bid price cap.

Third, as compared to minimum dispatch requirements, this voluntary bid parameter allows for economic bidding below the self-imposed bid cap while providing greater assurances that the DRAM resource will be scheduled and dispatched for energy even when the LMP exceeds the self-imposed bid cap but falls below the resource's marginal costs. DRAM participants who choose to submit this bid cap parameter in the solicitation would have to calculate their expected marginal costs and expected energy prices to determine the appropriate bid cap that optimizes variable energy revenues and costs/losses, along with expected capacity payments from winning a DRAM contract.

However, CESA does not propose that voluntary bid parameters be adopted at this time until the proposal is more fully developed and because this proposal would require significant changes to the solicitation protocols. Currently, the DRAM solicitation protocols conduct simple net market value ("NMV") assessments based on the quantity, bid price, and value of proposed RA capacity without a valuation of the expected energy from DRAM resources. To date, this has been understandable due to the goal of creating a capacity-only auction that is simple and makes least-cost bid assessments clearer. By adding an expected energy value component to these NMV

assessments, these solicitation protocols would need to be modified to clarify how different DRAM resources would be assessed. For example, as raised in the Step 2 Report, it is unclear how competing 10-MW bids for \$100/kW-year either without a bid cap (“Bid A”) or with a voluntary \$500/MWh bid cap (“Bid B”) would be assessed. It may be unfair to assume that Bid A has an implied bid cap of \$1,000/MWh and assign no or little expected energy value in the DRAM solicitation if the underlying DRAM resource has dynamic variable costs. These details need to be worked out prior to adopting this proposal in the DRAM, but given the advantages and opportunities highlighted above, CESA believes that this proposal warrants further exploration.

IV. COST EFFECTIVENESS SHOULD CONTINUE TO BE ASSESSED ON AN EX ANTE BASIS IN THE SOLICITATION BID EVALUATION STAGE.

Unlike a traditional DR program that is generally eligible for any DR resource that meets minimum eligibility criteria and can be assessed using established cost-effectiveness tests, DRAM is a supply-side solicitation mechanism that selects resources on a least-cost, best-fit (“LCBF”) basis through a competitive solicitation. Other competitive solicitations for third-party resources also assess for least cost outcomes and/or cost-effectiveness in a similar way. Especially as a pilot mechanism, traditional cost-effectiveness tests should not be apply at this time, though CESA supports the exploration for how cost-effectiveness could be assessed for DRAM, which is a competitive solicitation but resembles a program in some ways. PG&E and SCE reasonably point to how this *ex ante* cost-effectiveness evaluation does not work for DRAM because, unlike other competitive solicitations, it is not aligned with RA need as identified in the Integrated Resource Plan (“IRP”) proceeding (R.16-02-007) and RA proceeding (R.17-09-020)⁹ and operates like a

⁹ Step 2 Report Appendix A at pp. 34-35.

program in some ways by procuring DRAM resources in accordance with an available budget but within a certain cost cap.

However, rather than applying conventional cost-effectiveness tests or utilizing a more complicated hybrid approach where DRPs submit their A-G factors in their bid, CESA does not believe that additional cost-effectiveness assessments are needed beyond what is currently done through the NMV and LCBF methodologies. Concerns about how DRAM resources are operationalized in the market (*e.g.*, lack of scheduling and dispatch) can be addressed by adjusting the solicitation and evaluation criteria, as discussed earlier in our comments, which will consequently adjust how cost-effectiveness is assessed on an *ex ante* basis in the solicitation stage.

Meanwhile, though DRAM budgets and resource selection may not be tied to specific identified needs, the Commission should consider how DRAM resources can ‘count’ toward RA needs as ‘baseline resources’ in the IRP and RA proceeding, which CESA views as being in line with the preferred loading order. Instead of quantifying the value of DRAM resources from addressing any residual RA need, if any, DRAM resources value should be derived from reducing the residual RA need and/or reducing the need for RA capacity from non-preferred resources, such as conventional fossil-fueled generators.

V. **CONTRACT REASSIGNMENT AND PARTITIONING SHOULD BE ALLOWED WITH DISINCENTIVES FOR PERVERSE OUTCOMES THROUGH QUALITATIVE BID EVALUATION CRITERIA.**

CESA is cautiously supportive of contract partitioning or reassignment since this option provides liquidity for a secondary market of DRAM contracts in case a DRP is unable to fulfill its contract in part or in full for valid reasons or factors outside of their control. At the same time, CESA shares some of the same concerns expressed by Southern California Edison Company (“SCE”) where DRPs could overclaim capacity in the auction with overly optimistic projections

and prevent other viable and competent DRPs from securing DRAM contracts.¹⁰ To disincentivize such potentially problematic behavior of the solicitation, CESA recommends that DRPs that partition or reassign contracts should be assessed with lower scores in the qualitative bid evaluation criteria, especially if such DRPs transferred their contractual obligations in part or in full to a poor-performing DRP.

VI. RESPONSES TO APPENDIX C QUESTIONS.

Question 1: Should the Commission require the Auction Mechanism resources to be cost-effective? If yes, what process should the Commission use to develop such protocols.

The commission should ensure competitiveness in solicitations to pursue least-cost best fit outcomes, potentially with an eye towards the energy bids and level of energy dispatched, as discussed above. Traditional cost-effectiveness protocols or methodologies are not needed at this time given that DRAM is a procurement mechanism, where cost-competitiveness can be assessed through auction bids on an *ex ante* basis, similar to all other procurement mechanisms. Unlike traditional DR programs where any resource is generally eligible to enroll and participate upon meeting minimum eligibility criteria, DRAM is intended to solicit and procure for supply-side resources on a LCBF basis. Competitive bidding into the solicitation or auction should drive the most effective and cost-effective resources to be selected and then operationalized

Question 2: Should the Commission allow or require Qualitative Criteria in the Auction Mechanism solicitation? If yes, what process should the Commission use to develop the criteria?

Yes, qualitative criteria can be effective in procuring and selecting for best-fit attributes that address the intended objectives of the DRAM. As noted, qualitative criteria can be an effective

¹⁰ Step 2 Report Appendix A at p. 21.

means to reward ‘good actors’ and penalize ‘bad actors’ or be used to place some value on difficult-to-quantify attributes.

Question 3: What process should the Commission use to address CAISO markets and resource adequacy related issues?

There are certain DRAM issues that likely need to be resolved within the appropriate CAISO initiatives or the Commission’s RA proceeding. Given the wide-ranging scope of these initiatives and proceedings, a potential effective and efficient means to address DRAM-related issues would be for working groups within this proceeding to work through detailed issues and develop specific proposals for consideration in the CAISO initiatives or the Commission’s RA proceeding, similar to what has been done by the Supply Side Working Group or the Load Shift Working Group.

Question 4: Should the Commission shift the focus of the Auction Mechanism procurement from System resource adequacy to local and flexible capacity? If yes, what process should the Commission use to make this shift?

Rather than shifting the focus, CESA recommends broadening the RA capacity products that are eligible for DRAM resources to provide. Both Local RA and Flexible RA are likely tied to greater need and value in light of gas plant retirements and growing intra-hour uncertainty and multi-hour ramping issues – issues that have been highlighted in the CAISO’s RA Enhancements Initiative as well as the Commission’s IRP and RA proceedings. The working group process in this proceeding would be best positioned to address the details.

Question 5: What improvements could be made to streamline communication between Utilities and Providers regarding missing data, data quality concerns and gaps in data?

CESA has no comment at this time.

Question 6: Should the Commission condition payment of invoices on registration with the Commission?

CESA has no comment at this time.

Question 7: This decision adopts an informal, staff-led refinement process as part of the Two-Step Approach in Ordering Paragraph 1. What process steps and schedule should the Commission use to develop and adopt further refinements to the Auction Mechanism?

Given that DRAM solicitations for 2020 through 2022 will likely occur in Q1 of each year, CESA recommends that the Commission-led refinement process occur via a working group process in October of every year. These working groups have been effective in identifying and working through detailed issues and developing proposals that refine or enhance DRAM.

VII. CONCLUSION.

CESA appreciates the opportunity to submit these comments to the Step 2 Report and responses to Appendix C of D.19-07-009. We look forward to working with the Commission and stakeholders in this proceeding to continue to make improvements to the DRAM.

Respectfully submitted,



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