BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Reliable Electric Service in California in the Event of an Extreme Weather Event in 2021.	Rulemaking 20-11-003 (Filed November 19, 2020)

REPLY BRIEF OF THE CALIFORNIA ENERGY STORAGE ALLIANCE

Jin Noh
Policy Director

CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: cesa_regulatory@storagealliance.org

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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") hereby submits this reply brief pursuant to the *Assigned Commissioner's Scoping Memo and Ruling* ("Scoping Memo"), issued by Assigned Commissioner ("ALJ") Marybel Batjer on December 21, 2021. CESA also timely served opening and reply testimony on January 11 and 19, respectively, in the request for party proposals.

I. INTRODUCTION.

CESA appreciates the various perspectives and proposals submitted by parties in this proceeding as well as the opportunity to submit this reply brief to inform the Commission on how to best address emergency reliability needs for Summer 2021 and beyond. Our reply brief can be summarized as follows:

- A no-regrets strategy would involve an expeditious needs assessment that results in a procurement order by March 2021 for Summer 2022 needs.
- CESA's proposed Emergency Load Reduction Program ("ELRP") falls within the scope and merits further consideration given concerns about customer fatigue.

- If voluntary energy-only payments are established for any adopted ELRP, behind-the-meter ("BTM") energy storage exports should be eligible and immediately activated.

- An additional Demand Response Auction Mechanism ("DRAM") auction should be authorized for Summer 2022 deliveries.

- Addressing electric vehicle ("EV") participation barriers in demand response ("DR") programs and other grid-service opportunities should be pursued urgently.

II. <u>A NO-REGRETS STRATEGY WOULD INVOLVE AN EXPEDITIOUS NEEDS ASSESSMENT THAT RESULTS IN A PROCUREMENT ORDER BY MARCH 2021 FOR SUMMER 2022 NEEDS</u>.

CESA agrees with several parties that urge the Commission to expeditiously authorize and/or focus on Summer 2022 needs since the feasibility of getting any incremental capacity, even from existing gas-fired resources, by Summer 2021 is limited.[1] The time required to procure equipment, interconnect, and construct energy storage projects require at least 12-14 months from the commercial online date ("COD"), where the Commission is already pushing up against these timelines by not authorizing and directing the investor-owned utility ("IOU") procurement of Summer 2022 resources in the Proposed Decision adopted on February 11, 2021. Unless a follow-up procurement order is included in the scheduled March/April 2021 Proposed and Final Decisions, supported by the numerous testimonies and briefs filed in this proceeding, CESA is concerned that the feasibility of any incremental capacity coming online by Summer 2022 is slim and unlikely. Energy storage resources, as demonstrated in short turnaround procurements related to the Aliso Canyon natural gas moratorium and the 2021-2023 System Resource Adequacy ("RA") shortfall, have the ability to come online quickly while aligning with the state's decarbonization goals as identified in the Integrated Resource Planning ("IRP") process, but

[1] *See e.g.,* IEP Opening Brief at 2-3 and LS Power Opening Brief at 4.

certain commercial realities must be incorporated in any procurement actions directed and ultimately reviewed and approved by the Commission. Otherwise, the Commission will be hamstrung with a limited set of options for Summer 2022, most likely for existing gas generation, if the Commission waits too long to pull the trigger on action.

At the same time, CESA understands the concerns expressed by the California Community Choice Association ("CalCCA") that a no-regrets outcome requires a needs analysis via workshops to establish the bounds for procurement needed for Summer 2021, let alone Summer 2022. Otherwise, there is a risk of significant investments made in capacity beyond what is needed, which has total cost implications to ratepayers and cost allocation considerations across multiple load-serving entities ("LSEs").[2] To this end, CESA appreciates the comparative analysis conducted on the two main needs analyses conducted by Southern California Edison Company ("SCE") and the California Independent System Operator ("CAISO").[3] Several parties made similar calls for additional and more robust analysis prior to making any decisions in Summer 2022.[4]

However, CESA sees little time for the Commission, CAISO, SCE, or others to conduct more robust analysis on Summer 2022 needs without jeopardizing the ability to address Summer 2022 needs with a comprehensive suite of emergency reliability mitigation solutions. Contrary to Public Advocates Office's ("PAO") view that there is sufficient time to consider Summer 2022 issues,[5] CESA believes that there is at most one month to address some parties' concerns to conduct more robust analysis, such as loss-of-load expectation ("LOLE") analysis, which is likely time consuming and infeasible to do in such a compressed time period. Instead, to address parties'

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[2] CalCCA Opening Brief at 3, 5, and 8.

[3] *Ibid* at 7 and 13.

[4] *See e.g.*, CalCCA Opening Brief at 14, Joint DA Parties Opening Brief at 5, and PAO Opening Brief at 6-7, and SCE Opening Brief at 6.

[5] PAO Opening Brief at 7.

concerns about better understanding the magnitude of the need for Summer 2022, CESA supports the rough approach proposed by San Diego Gas and Electric Company ("SDG&E"), where an updated needs analysis is conducted following the IOUs' submission of February 15, 2021 advice letters,[6] which will provide updates on any IOU bilateral negotiations and procurement for Summer 2021 needs. With this updated information, the Commission can then conduct an expedited stack analysis, building off work already completed by the CAISO, and even hold a workshop to inform the March/April 2021 decisions for Summer 2022 needs, but it is imperative for the Commission to target March/April 2021 for any procurement order for Summer 2022 needs.

Finally, as expressed by Independent Energy Producers Association ("IEP") and SDG&E,[7] energy storage resources, including battery storage hybridized with existing gas resources, represent valuable components of the supply portfolio that could address Summer 2022 needs that also aligns well with the long-term modeled portfolio mix in the IRP.[8] Comments casting doubt on storage's ability to address emergency reliability needs should be dismissed. For example, Calpine points to the lack of experience with storage in the Final Root Cause Analysis Report, the establishment of maximum cumulative capacity ("MCC") buckets, and the CAISO's RA proposal to establish backstop procurement authority if local energy sufficiency is not met.[9] These concerns, however, are not substantiated with evidence pointing to actual poor performance, whereas the policy steps and proposals made by the Commission and CAISO are more appropriately framed as pre-emptive measures, not reactive measures in response to poor storage performance. The lack of discussion in the Final Root Cause Analysis Report on storage performance should be viewed

[6] SDG&E Opening Brief at 17.
[7] IEP Opening Brief at 6 and SDG&E Opening Brief at 18.
[8] TURN Opening Brief at 13.
[9] Calpine Opening Brief at 2-3.

instead in the positive, when much of the report focuses on the underperformance or misaligned planning values of several non-storage resource types.

III. CESA'S PROPOSED EMERGENCY LOAD REDUCTION PROGRAM FALLS WITHIN THE SCOPE AND MERITS FURTHER CONSIDERATION GIVEN CONCERNS ABOUT CUSTOMER FATIGUE.

CESA understands that our ELRP proposal can be viewed as substantial and likely requires deeper examination, which may not fit within the accelerated timeline of this proceeding, leading to the Commission favoring short-term or incremental modifications to existing customer programs or simpler voluntary programs. Across the various customer program modifications, however, many parties warn of avoiding customer fatigue with modifications that may cause excessive dispatch.[10] CESA thus sees a tension between expecting and relying more on DR resources to address emergency reliability while establishing parameters that limit its use or recognize its various parameters (*e.g.*, start times, minimum run times). While seeing a major role for such traditional DR resources in addressing these and other needs, CESA developed our ELRP proposal to support the development of the fast-start, frequently dispatchable customer-sited resource that is currently not served well by the current suite of customer DR programs. While not wholly endorsing our proposal, the Union of Concerned Scientists ("UCS") seemingly finds potential in this type of program proposal.[11]

However, several parties recommended the rejection of our proposal. PAO in particular opposed our ELRP proposal as not addressing Summer 2021 needs due to development and implementation timelines and the duplicative nature of this program with other Commission

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[10] *See e.g.*, NRG Opening Brief at 2-3.
[11] UCS Opening Brief at 4.

programs.[12] CESA acknowledges the feasibility in Summer 2021 is limited given the scope and nature of a new program, but feasibility by Summer 2021 is likely pervasive across all solutions being considered, underscoring our recommendation that a focus on Summer 2022 is needed rather than solely relying on short-term patch-work solutions. With the ELRP Staff Proposal initially suggesting that the ELRP could be a multi-year program,[13] CESA similarly submitted a proposal that could address needs over a multi-year period, such that the focus was not exclusively on Summer 2021. Furthermore, CESA explained in our testimony that this program is distinct from other Commission programs in that our proposed ELRP is a grid-service program with real capacity and performance obligations, as opposed to a technology incentive program that supports deployments but only establishes minimum program requirements and otherwise allows for voluntary response to various incentives and signals. Key distinctions have been made by the Commission between incentives versus payment for services, most recently in a Proposed Decision in R.14-10-003.[14] If double payment is a concern, payments under our proposed ELRP could be structured to only incrementally pay for the grid service provided. With a continued focus on Summer 2022, CESA believes that our proposed ELRP merits follow-up consideration in this proceeding.

Additionally, CESA disagrees with SCE and Pacific Gas and Electric Company ("PG&E") in their call for the rejection of capacity or reservation payments as part of the ELRP that is ultimately considered and potentially adopted by the Commission because of the lack of market

[12] PAO Opening Brief at 17.

[13] Staff Proposal at 5.

[14] *See e.g.*, *Decision Adopting Pilots to Test Two Frameworks for Procuring Distributed Energy Resources that Avoid or Defer Utility Capital Investments* approved on February 11, 2021 in R.14-10-003 at 49-50 and Ordering Paragraph ("OP") 9.

integration or performance obligations and penalties.[15] Neither proposals from CESA or the DR Coalition, who similarly proposed capacity payments as part of their version of the ELRP, suggested that capacity payments should be awarded to DR resources that do not have or meet performance obligations. As a program outside of the RA framework, as initially framed by staff, ELRP resources do not need to be market integrated as a threshold matter. Moreover, there are a number of other areas where capacity-based payments can be settled and awarded with measured performance obligations and penalties, even without market integration, which is currently being pursued, for example, within the distribution deferral context. We thus echo the viewpoints of the DR Coalition that capacity-based payments and dual participation eligibility are needed to elicit the customer enrollment and response needed.[16]

IV. IF VOLUNTARY ENERGY-ONLY PAYMENTS ARE ESTABLISHED FOR ANY ADOPTED EMERGENCY LOAD REDUCTION PROGRAM, BEHIND-THE-METER STORAGE EXPORTS SHOULD BE ELIGIBLE AND IMMEDIATELY ACTIVATED.

While still seeing significant merits and need for more substantive ELRP programs, CESA recognizes that smaller, incremental program proposals may be more feasible in the near term to address Summer 2021 needs, leading the Commission to potentially adopt the voluntary energy-only payment structure as proposed by each of the IOUs in their respective program proposals. If such a structure is pursued, CESA urges the Commission to affirm and make explicitly eligible BTM energy storage exports for these energy-only payments. Unlocking exports from existing BTM energy storage assets is an immediate means to extract emergency reliability capacity from resources that already have steel in the ground but are limited in their ability to deliver this

[15] PG&E Opening Brief at 17 and SCE Opening Brief at 9.
[16] *See e.g.*, DR Coalition Opening Brief at 9 and Joint DR Parties Opening Brief at 13-14.

generation by virtue of being load-limited within the DR construct – *i.e.*, energy storage is limited to reducing onsite customer load but during critical periods of the day, there could be stranded export capacity that could be delivered if compensated. Especially with the lifting of dual participation barriers, this could present an economic option for BTM energy storage resources to leverage an additional value stream while providing incremental grid services for export capacity that would otherwise be wasted and unused. Safety and reliability concerns, as raised by some in testimonies, should not hinder the Commission's consideration of this option, as Rule 21 interconnection processes can readily address modifications to allow for export capabilities. CESA thus agrees with California Environmental Justice Alliance ("CEJA") and Sierra Club that exports should be made eligible for ELRP payments.[17]

V. AN ADDITIONAL DEMAND RESPONSE AUCTION MECHANISM AUCTION SHOULD BE AUTHORIZED FOR SUMMER 2022 DELIVERIES.

One of the most immediate means to bring short-term incremental capacity is to leverage an existing procurement mechanism in the DRAM and to authorize budget for an auction for third-party DR resources for Summer 2022 deliveries. CESA agrees with the Joint DR Parties that bringing the DRAM budget up to previous levels before it was halved for the 2020-2023 program years could bring significant capacity online, on the order of approximately 150 MW.[18] The Energy Division's DRAM Evaluation Report in January 2019 identified a "mixed but improving" record for DRAM resources in the 2016-2019 period,[19] and since then, the DR Coalition correctly cite the many and continuous improvements being made to the program as well as the performance

[17] CEJA and Sierra Club Opening Brief at 24-25.

[18] Joint DR Parties Opening Brief at 12.

[19] *Energy Division's Evaluation of Demand Response Auction Mechanism: Final Report* published on January 4, 2019 at 10-11.

requirements (*e.g.*, energy deliveries) and penalties in place to ensure resources are dispatched.[20] In contrast to the new program creation or the program modifications being contemplated in this proceeding, the DRAM is an established vehicle by which to immediately procure capacity with real performance obligations and requirements and without additional changes being required outside of those already being considered and established in A.17-01-012, *et al*. With many parties recommending short-term measures to avoid stranded investments or decisions that may not fit within long-term policy objectives, the DRAM supports this criterion given the nature of this mechanism procuring third-party DR under one-year contracts.

However, PAO and PG&E strongly oppose an "expansion" of the DRAM pilot until performance improvements are demonstrated or a formal evaluation is completed.[21] CESA disagrees and believes that recent enhancements that will take effect for the upcoming DRAM resources, such as the minimum energy dispatch requirement,[22] were adopted in order to make continuous improvements to the performance of DRAM resources. Generally, the view that all performance issues must be fixed before pursuing a particular resource type is a unique standard placed on DRAM resources. That is, capacity valuation, procurement, and performance of other resource types face similar needs for continuous improvements over time, yet DRAM resources are opposed by some parties as an option to address summer emergency reliability needs when the Commission is currently aiming to exhaust all options available to deliver capacity on short notice. If anything, there is an inconsistency for the Commission to consider various proposals for new and unproven demand-side pilots but cast doubt or dismiss the DRAM as a means to procure incremental demand-side capacity on short notice and on a short-term basis.

[20] DR Coalition Opening Brief at 14.
[21] PAO Opening Brief at 19-20 and PG&E Opening Brief at 30.
[22] *See* D.19-12-040.

Finally, as raised in testimony by the DR parties and The Utility Reform Network ("TURN"), the performance of DR resources may be tied to the baseline methodologies used that undervalue that load reduction contributions during the heat wave days. Unfortunately, CESA cannot view PAO's redacted testimony on the reported performance of DRAM resources, but any poor performance should be targeted to the specific resources or providers that are chronically under-performing. CESA adds that performance should also be viewed more granularly to recognize different resource types such as storage-backed DR, which is capable of fast and frequent dispatch to deliver on their performance obligations.

VI. ADDRESSING ELECTRIC VEHICLE PARTICIPATION BARRIERS IN DEMAND RESPONSE PROGRAMS AND OTHER GRID-SERVICE OPPORTUNITIES SHOULD BE PURSUED URGENTLY.

CESA supports the comments from the Vehicle-Grid Integration Council ("VGIC") regarding the urgent need to address DR participation barriers, establish a vehicle-to-grid ("V2G") export compensation rate, and adopt a reasonable submetering protocol that together enable EV participation for grid services, including for the identified emergency reliability needs in this proceeding.[23] We understand that many of these issues are scoped in the R.18-12-006 proceeding, including an upcoming workshop on DR participation pathways and barriers in Q1 2021 pursuant to D.20-12-029; however, given the urgency of the needs as identified in R.20-11-003, CESA recommends urgency on addressing the implementation of the many vehicle-grid integration ("VGI") strategies identified therein, especially as VGI solutions support the all-of-the-above strategy presumably being pursued in this proceeding and given the incremental benefit provided by activating and procuring for these capabilities from existing assets (*i.e.*, vehicles, chargers) . At minimum, in this proceeding, CESA recommends that the Commission direct Critical Peak Pricing

[23] VGIC Opening Brief at 5 and 7-8.

("CPP") and Peak Day Pricing ("PDP") eligibility for separately-metered EV customers to maximize the value of existing and future transportation electrification investments and leverage the battery capacity embedded in the cost of an already-purchased EV.[24] This represents an implementable first step to enable EV participation for the purposes of emergency reliability.

VII. CONCLUSION.

CESA appreciates the opportunity to this reply brief on the PD and looks forward to working with the Commission and other stakeholders in this proceeding.

Respectfully submitted,

Jin Noh
Policy Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: February 12, 2021

[24] CESA Opening Testimony (Exhibit No. CESA-1) at 35-36.