

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

Order Instituting Rulemaking to Oversee
the Resource Adequacy Program, Consider
Program Refinements, and Establish
Forward Resource Adequacy Procurement
Obligations.

Rulemaking 19-11-009
(Filed November 7, 2019)

**REVISED RESOURCE ADEQUACY TRACK 3B.1 PROPOSALS OF THE
CALIFORNIA ENERGY STORAGE ALLIANCE**

Jin Noh
Policy Director

Sergio Dueñas
Senior Regulatory Consultant

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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ENERGY STORAGE ALLIANCE**

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“CPUC” or “the Commission”), the California Energy Storage Alliance (“CESA”) hereby submits these *Revised Resource Adequacy Track 3B.1 Proposals* pursuant to the *Assigned Commissioner’s Amended Track 3B and Track 4 Scoping Memo and Ruling* (“Amended Scoping Memo”), issued on December 11, 2020.

I. INTRODUCTION.

California’s electrical grid is undergoing a major transformation spurred by ambitious environmental goals. These targets, in turn, have stimulated the rapid procurement and development of variable energy resources (“VERs”) and energy storage assets capable of shifting renewable generation and mitigating the increasing ramping needs of the overall system. As a result, today’s grid has become increasingly dependent on resources with varying levels of energy, use limitations, and/or intermittency for reliability. In light of the evolving composition of California’s grid, CESA believes it is essential that the Resource Adequacy (“RA”) Program is modernized in a manner that both ensures a reasonable level reliability and advances the state’s decarbonization effort.

CESA appreciates the opportunity to refine its original Track 3B proposal, which was filed on August 7, 2020. Since CESA submitted its initial Track 3B Proposal, several procedural modifications have occurred within the present proceeding. Most notably, the Commission has modified Track 3B

of rulemaking (“R.”) 19-11-009 by splitting it into two sub-tracks: (1) Track 3B.1 focusing on near-term modifications to the RA structure; and (2) Track 3B.2 where parties have submitted proposals to reform the RA framework more deeply, likely requiring much more time to develop and implement the new structure and requirements. Given these scoping modifications, CESA recommended in previous comments that the Commission create a roadmap or pathway to transition from the adopted Track 3B.1 proposal to the adopted Track 3B.2 proposal. In other words, the near-term and longer-term reforms must be coordinated and include certain common or related elements that minimize the disruptive market impacts of adopting a near-term proposal that does not reasonably transition to or is substantially different from the longer-term restructuring of the RA Program.¹ The last thing the Commission should be attempting to do is to undergo two major changes or transformations of the RA Program over a short period of time.

In addition to the procedural changes to the present proceeding, new party proposals, such as those by Pacific Gas & Electric (“PG&E”), have been submitted since CESA initially filed its Track 3B proposal. As a result, both parties and the Commission have been put in a position to consider several near- and long-term proposals in parallel, where CESA strongly encourages the Commission seek and identify common elements that could minimize market disruption and allow for an efficient and relatively seamless transition in the RA Program. Moreover, since initial Track 3B proposals were filed, California experienced historically tight supply conditions during August and September of 2020, prompting the California Independent System Operator (“CAISO”), the California Energy Commission (“CEC”), and the Commission to expeditiously identify and apply immediate reforms to support the state’s grid ahead of Summer 2021.

In light of these developments, CESA revises its initial Track 3B proposal to adapt it to the current conditions and coordinate it with what CESA views as potentially viable Track 3B.2 proposals. CESA believes that Track 3B.1 proposals should be limited in scope, focusing on incremental improvements to the current framework. Furthermore, CESA believes that Track 3B.1

¹ See CESA, “Resource Adequacy Track 3B.2 Proposals of the California Energy Storage Alliance”, filed under R.19-11-009 on December 18, 2020.

proposals should be generally aligned with the Track 3B.2 proposals that are best-equipped to incorporate the complexities of managing a grid with a substantial share of energy- and use-limited assets while ensuring reliability beyond just the single peak period. In this way, potential disruption of adopting significant and frequent modifications to the RA framework is limited. Finally, the Commission should not necessarily seek to fix all the current issues surrounding the energy and capacity constructs of the state through RA, where the appropriate role of CAISO markets, contracts, and the RA Program and requirements should be considered. The RA program must be coordinated with market mechanisms and modifications considered at the CAISO, as well as with the other proceedings where the Commission is considering changes to guarantee the reliability of the electric sector. Thus, CESA updates our Track 3B.1 proposal so that it focuses on targeted near-term reforms that may later serve as a bridge for the development and implementation of longer-term reform proposals such as those from Southern California Edison (“SCE”) and the California Community Choice Association (“CalCCA”) (referred to herein as the “Joint Parties”), and PG&E.²

To this end, CESA focuses on incremental refinements to the maximum cumulative capacity (“MCC”) buckets, as included within the scope of Track 3B.1 of the current RA proceeding. The MCC framework originated from the need to ensure that load-serving entities (“LSEs”) do not over-rely on particular types of resources, and guard against “leaning” by LSEs and their respective portfolios. If constructed in the way it stands today, the MCC buckets could guard against unreliable aggregate portfolios but also restrict the ability of LSEs to contract for the types of resources needed to ensure reliability while meeting the state’s long-term decarbonization goals. However, with some incremental tweaks, CESA sees potential for the MCC framework to be leveraged to better address the hourly energy capacity needs, allow the construction of reliable LSE portfolios, and recognize different resource attributes (*e.g.*, longer duration storage) in the short term, until longer-term reforms

² CESA’s Track 3B.1 proposal does not represent a consensus view among CESA members. They are provided to enable a bridge solution that would mainly serve to connect Track 3B.1 with Track 3B.2. In this sense, CESA views these proposals as interim, as they would mainly serve to move towards a more fundamentally revised RA structure in the future. As such, we look forward to engaging on the ultimate long-term solution under Track 3B.2, where we will continue to seek for improvements and reforms that are aligned with key objectives and reflect consensus among CESA members and other stakeholders.

are identified, developed, and implemented. Specifically, CESA offers clarification on elements of our initial Track 3B MCC proposal and revise it to focus on changes that can be implemented in the near term and include common elements with aforementioned Track 3B.2 proposals to support an efficient transition to our favored longer-term reforms. Hence, CESA's proposals can be summarized as follows:

- **The Commission should reevaluate and restructure the MCC framework:** CESA proposes reframing the MCC paradigm to flexibly account for RA needs in the state rather than focus on overly restrictive requirements for continuous, consecutive dispatch by making two key changes:
 - **The Commission should revise the net qualifying capacity (“NQC”) counting rules for storage assets to correspond with the MCC buckets for which it is shown:** Currently, the Commission assigns an NQC value to storage assets based on the maximum power output it can sustain over a four-hour period. As grid needs evolve and a wider range of energy storage technologies become increasingly needed and cost-effective, this methodology is not properly equipped to adequately value the reliability contributions of assets with durations exceeding four hours. To mitigate this deficiency and prime the RA program for a methodology that values energy storage of all durations fairly, CESA recommends the Commission assign NQC values based on the maximum power output a resource can sustain over the period defined in its corresponding MCC bucket.
 - **The Commission should link a resource’s must-offer obligation (“MOO”) to the specific MCC bucket for which it is shown:** CESA’s proposal would require resources shown within specific buckets to be available during predetermined hours of the day based on actual grid needs. In order to simplify participation and advance a portfolio-based approach in the RA program, CESA recommends that the MOOs of resources are limited to the hours defined by the MCC bucket for which they are shown.

Compared to our original August 7, 2020 Track 3B proposal, CESA elaborates on our revised Track 3B.1 proposal, as discussed in the bullets above, but we also note that several modifications were made to focus on incremental improvements, eliminate certain features that would be infeasible to implement in the near term, and address feedback received at the November 2020 Track 3B workshops. Those changes include the following:

- **Elimination of the focus on the net load peak:** CESA based our original Track 3B proposal on addressing net load peak needs, where solar and wind output would be netted and thus not attributed supply-side capacity value to identify residual or net load peak needs. While

worthwhile to consider in Track 3B.2, CESA believes that there is much additional work needed to establish and implement this netting methodology, determine the solar or wind production profiles to be used to inform capacity needs, transition from the current approach to use effective load carrying capability (“ELCC”) for solar and wind resources, and so on. By eliminating this element from our proposal, we minimize the changes needed to improve the feasibility of our proposal as a near-term solution and bridge to longer-term reforms.

- **Shifting of the minimum requirements to be based on MOOs instead of availability assessment hours (“AAHs”):** With the RA Availability Incentive Mechanism (“RAAIM”) soon becoming obsolete with the implementation of the unforced capacity (“UCAP”) framework in the CAISO’s RA Enhancements Initiative, a shift to focus on MOOs in specified periods is appropriate and lines up with other longer-term reform proposals.
- **Modification of Category DR to four consecutive hours instead of two consecutive hours:** This change was made in light of workshop feedback and the need to maintain a four-hour base operating requirement.

II. THE COMMISSION SHOULD REEVALUATE AND RESTRUCTURE THE MCC FRAMEWORK.

In Track 2 of the current RA proceeding, CESA opposed the implementation of the Energy Division’s proposal to modify the MCC buckets paradigm. CESA commented that any discussion of the MCC structure should be done in light of fundamental reforms to the RA program.³ Despite the comments made by CESA and other parties, in Decision (“D.”) 20-06-031, the Commission adopted a modified version of the Energy Division’s MCC proposal shared on February 7, 2020. This framework must be revised and leveraged as part of the restructuring of the RA Program. As it currently stands, the MCC framework limits market transformation as it establishes caps on specific technologies and resources with a narrow focus on consecutive deliveries and the lack of changes to recognize different resource attributes (*e.g.*, longer-duration storage).

First, as CESA noted in Track 2, the current MCC bucket structure places unduly restrictive definitions for availability that do not align with CAISO market participation or the actual timing of resource needs across the state. Currently, the MCC bucket framework places a heavy emphasis on

³ See CESA, “Resource Adequacy Track 2 Proposals of the California Energy Storage Alliance”, filed under R.19-11-009 on February 2020, at 11-13.

ensuring continuous operation of all RA resources, as well as physical availability requirements for all RA-providing resources in the 4 PM to 9 PM period.⁴ Data analyses carried out by the CAISO have shown these requirements are not representative of the actual timing of grid stress. As part of the RA Enhancements Initiative, CAISO staff identified the top two deciles of hours with the tightest supply cushion.⁵ ⁶ In the Fifth Revised Straw proposal of the RA Enhancements Initiative, CAISO noted that only 65% of the hours included in that top 20% fell within the current AAHs.⁷ This finding shows that, due to the dynamic nature of the electric sector, the current focus on the AAHs is misplaced.

Due to its misalignment with observed grid needs, the current MCC framework oversimplifies reliability contributions by defining them in terms of continuous, consecutive operation centered around the AAHs. This focus may tie California to a future that is largely dependent on fossil-fueled capacity, an outcome that would be inconsistent with achieving the state's energy and environmental goals set forth in Senate Bill (“SB”) 100, among other policies and goals.

While the emphasis on continuous dispatch is both unduly restrictive and unable to account for the actual ramping and capacity needs of California's electric system, the MCC structure itself can serve as a vehicle in the interim towards a more sophisticated portfolio-based RA program – a future transition that could be achieved through proposals such as those submitted by the Joint Parties and PG&E. The current MCC buckets, adopted within Track 2 of this proceeding, were restructured to incorporate 2016-2018 load duration curves, require that use-limited resources (“ULRs”) be

⁴ CPUC, *Decision Adopting Local Capacity Obligations for 2021-2023, Adopting Flexible Capacity Obligations for 2021, and Refining the Resource Adequacy Program*, D. 20-06-031, issued June 30, 2020, p. 58.

⁵ See CAISO, *Resource Adequacy Enhancements Fifth Revised Straw Proposal*, July 2020, available at <http://www.caiso.com/InitiativeDocuments/FifthRevisedStrawProposal-ResourceAdequacyEnhancements.pdf>.

⁶ According to CAISO, “[s]upply cushion is a measure of real-time system resource adequacy risk. A large supply cushion indicates less real-time system resource adequacy risk because more energy remains available to respond to unplanned events. A low supply cushion indicates the system has fewer assets available to react to unexpected outages or load increases, indicating a high real-time system resource adequacy risk.” See CAISO, *Resource Adequacy Enhancements Fifth Revised Straw Proposal*, July 2020, p. 19.

⁷ *Ibid*, p. 21.

available at least 40 hours in each summer month, and spread availability for resources in Categories 2 through 4 across an entire month.⁸ These modifications have served to update the framework and simplifying the requirements for ULRs. Given this potential, CESA proposes reframing the MCC paradigm to flexibly account for RA needs in the state rather than focus on overly restrictive requirements for continuous, consecutive dispatch by modifying the MOO and AAHs by bucket.

In order to leverage the MCC bucket structure, CESA proposes having Categories 1-3 include stepped AAHs that would include evening peak period, as well as the morning ramp (5 AM to 9 AM), a period of increasing grid stress.⁹ ¹⁰ Rather than focusing on the continuous operation of resources, the revised MCC bucket paradigm would allow resources with incremental cycling capabilities and long discharge durations to be included in the buckets corresponding to the desired operation duration as they would be able to cover both morning and evening ramps. CESA welcomes Commission and party guidance on the hours considered for non-consecutive availability requirements. Currently, CESA has based its proposal on data shared by the CAISO within the RA Enhancements Initiative, as noted previously in this filing. Furthermore, CESA does not include specific percentages by category as they would need to be recalculated using an updated methodology based on the hours included. Below, CESA presents an example of how the modified MCC structure could be implemented for System RA.

⁸ Energy Division, *Proposals for Proceeding R.19-11-009: Revising Maximum Cumulative Capacity Buckets*, filed February 7, 2020, p. 9.

⁹ When analyzing the hours that fall within the 20th percentile of tightest supply cushion, the CAISO has noted a substantial clustering during the morning ramp period (hours ending 6 to 9 am. See *ibid*, p. 21.

¹⁰ It is worth noting this was CESA's originally intended redefinition of hours. Changes included in Table 1 include the clarification of a mistake that stated the first period of non-consecutive requirements would encompass 5 AM – 9 PM. This has been modified to represent CESA's original intention of incorporating the morning ramp, 5 AM – 9 AM.

Table 1. Example of the Potential Modifications to the Current MCC Framework

Category	Status Quo Availability	CESA’s Proposed Availability
DR	Varies by contract or tariff provisions, but must be available Monday – Friday, 4 consecutive hours between 4 PM and 9 PM, and at least 24 hours per month from May – September.	Varies by contract or tariff provisions, but must be available Monday – Friday, 4 consecutive hours between 4 PM and 9 PM, and at least 24 hours per month from May – September.
1	Monday – Friday, 4 consecutive hours between 4 PM and 9 PM, and at least 40 hours per month from May – September.	Monday – Friday, 4 consecutive hours between 4 PM and 9 PM, and at least 40 hours per month from May – September.
2	Every Monday – Friday, 8 consecutive hours that include 4 PM – 9 PM.	Every Monday – Friday, 8 consecutive hours that include 4 PM – 9 PM or <u>Every Monday – Friday, 8 non-consecutive hours that include 5 AM – 9 AM and 5 PM – 9 PM</u>
3	Every Monday – Friday, 16 consecutive hours that include 4 PM – 9 PM.	Every Monday – Friday, 16 consecutive hours that include 4 PM – 9 PM or <u>Every Monday- Friday, 16 non-consecutive hours that include 5 AM – 9 AM and 5 PM – 9 PM</u>
4	Every day of the month. Dispatchable resources must be available 24 hours.	Every day of the month. Dispatchable resources must be available 24 hours.

As it can be seen in Table 1, CESA’s proposal does not revise the definition of availability included in D.20-06-031; instead, it only extends the potential for resources to be counted as Category 2 or 3 assets based on consecutive or non-consecutive availability that matches the state’s actual capacity needs. This proposal would enable resources to be procured to work in a “block stacking” fashion based on the timing of different system capacity needs. This approach would provide a viable pathway to revamp the RA program with current grid needs in mind, thus preserving reliability while leveraging the growing array of preferred resources, such as energy storage. Moreover, this proposal

could easily serve as a bridge for the promising and more substantial reforms that the Joint Parties and PG&E have put forth in Track 3B.2 of this proceeding. CESA’s proposal (1) is well positioned to address the concerns related to the timing of energy requirements, per the Joint Parties proposal; and (2) able to provide a bridge towards PG&E’s “slice-of-day” proposal, as it primes the RA structure to consider intra-day requirements. In order to align this proposal with the aforementioned Track 3B.2 proposals, CESA recommends the Commission considers two additional modifications that are contingent on the application of the present proposal. CESA believes these recommendations will minimize market disruptions while allowing for an orderly transition to a framework that focuses on the periods of increased grid stress and values all resources based on their capacity and energy. These additional modifications are detailed further in the following subsections.

A. The Commission should revise the NQC counting rules for storage assets to correspond with the MCC buckets for which it is shown.

As it can be seen in Table 1, this alternative implies that storage assets need not be categorized immediately according to their ‘nameplate’ duration based on maximum capacity output since they can be counted as fulfilling different needs given the available categories. This means that resources with four hours of duration could be assigned as Category 1 resources or as Category 2 resources with a non-consecutive availability requirement. Similarly, resources with a duration of eight hours could be assigned as Category 2 resources or Category 3 resources with a non-consecutive availability requirement. These modifications would create further opportunity for LSEs to invest in the increasingly expanding and cost-effective array of long-duration energy storage (“LDES”) technologies coming into the market. Nevertheless, the current methodology for assigning NQC values for storage resources considerably limits this opportunity.

Currently, the Commission uses the four-hour rule (“FHR”) to assign NQC values for energy storage resources. The FHR was established following the approval of D.14-06-050, which linked the Commission’s NQC calculation process to the one included as a default in

the CAISO Tariff.¹¹ Essentially, CAISO Tariff Section 40.8.1.16(b) states that the RA value of a storage asset is equal to the maximum power output it can sustain for four consecutive hours. The FHR has thus been applied in a manner that derates resources' NQC if their duration is below four hours. As a result, a storage asset's NQC will be determined by its maximum power output at that duration, resulting in a 100 MW, four-hour (400 MWh) resource receiving an NQC of 100 MW, and a 100 MW, two-hour resource receiving a 50 MW NQC, for example. While this approach has been useful due to the nature of the peak and the market prevalence of four-hour solutions, it should be revised going forward given the growing need for and availability of LDES technologies. Moreover, the FHR does little to incent LSEs to procure LDES, as resources capable of supplying their maximum power outputs for durations above four hours are not recognized and valued for their full NQC, which discounts and denominates their capacity contributions to their four-hour equivalent. Ultimately, it is counterintuitive to discount their potential capacity contributions based on a legacy FHR when these are the very types of resources that are needed pursuant to the minimum operating requirements of the current and proposed MCC bucket categories and that have been identified as part of the least-cost portfolio to achieve our 2030 and 2045 long-term resource mix.

However, directly modifying the FHR for all energy storage as a resource class could result in substantial contractual uncertainty and market disruption given the level of currently deployed and planned four-hour storage assets. CESA is committed to preserve the value of these needed investments that support reliability and renewable integration, as recent studies such as the one undertaken by Strategen Consulting regarding the need and opportunity for LDES in California highlight the need for a diversified storage portfolio to ensure both

¹¹ See D.14-06-050, issued under R.11-10-023 on July 1, 2014; and CAISO Tariff, Section 40.8.1.16 (b).

reliability and the attainment of the State’s climate goals.¹² ¹³ Furthermore, a resource class derate by directly modifying the FHR is unnecessary under CESA’s modified MCC proposal, where the *resource-specific* ability to meet the requirements of the MCC bucket for which the resource is shown should suffice to retain the full NQC value. For the same reasons, CESA has not favored ELCC approaches to RA capacity valuation of energy storage since it takes a class-wide approach instead of being able to account for resource-specific characteristics.

In order to address the valuation mismatch resulting from the FHR while preserving opportunity for a wide array of storage assets, CESA recommends the Commission carefully consider the Track 3B.2 proposals put forth by the Joint Parties and PG&E. Both these proposals contain elements that would internalize the added value related to procuring storage assets with durations above four hours, while preserving opportunity for assets with shorter durations. While the Joint Parties note the added energy capability of LDES would be reflected by an increase in the asset’s NQE relative to four-hour solutions, PG&E’s proposals would allow LDES to serve as RA for additional slices of the day. Both proposals show potential that should be further explored in Track 3B.2. In light of these long-term proposals, CESA recommends that the Commission adopt CESA’s proposed MCC structure and modify the NQC calculation process to relate directly to the MCC bucket for which the resource is shown based on its duration.

Furthermore, the MCC framework should allow counting of resources to specific bucket categories based on its cycling abilities. Currently, the RA program assumes that most storage assets can only cycle once per day. This would immediately lead to most storage assets, which have four-hour durations, to be placed in Category 1, a classification that may not be appropriate for future or current storage resources that are capable of two cycles per day. To resolve this and recognize the additional capacity contributions of more than one cycle

¹² See Strategen Consulting, “Long Duration Energy Storage for California’s Clean, Reliable Grid”, December 2020.

¹³ See NREL, “The Potential for Battery Energy Storage to Provide Peaking Capacity in the United States”, June 2019. Available at <https://www.nrel.gov/docs/fy19osti/74184.pdf>

per day, resources could include a cycling parameter in their bids or contracts to signal the capability of their assets. Assets need not submit a point estimate of cycling and the cost associated with it; instead, assets could enter a cycling-cost curve in their bids, for example. Thus, and since buckets would be related to energy requirements by duration, a 4-hour 100-MW resource for example could be included in Category 1 or in Category 2 if the resource clearly states within its bid that it is able to cycle more than once per day.

In addition to incorporating cycling for the coverage of non-consecutive requirements, CESA recommends resources unable or unwilling to cycle multiple times per day could also be counted in MCC categories with a duration requirement higher than their nameplate duration, albeit derated in a linear fashion. Depending on LSE preferences, this structure would allow the overbuilding of capacity of energy storage resources to be able to meet the requirements of longer-duration energy needs in Categories 2 or 3. However, there should be sufficient check and guardrails so that derated storage does not qualify for an NQC value that does not match the intended operation of the resource, as required and shown in the specific MCC bucket category. Some additional consideration should be made for how storage categorization across these modified MCC bucket categories would apply to those meeting their MOOs through the provision of ancillary services. Table 2 illustrates a series of examples on how CESA envisions this modification could apply.

Table 2. Example of NQC values under CESA’s proposal

Asset	MCC Bucket Categorization	NQC under CESA’s proposal
100 MW, 4-hr	Category 1	100 MW
100 MW, 4-hr	Category 2, consecutive (implies single cycle)	50 MW
100 MW, 4-hr	Category 2, non-consecutive (implies two cycles)	100 MW
200 MW, 4-hr	Category 2, consecutive (implies single cycle)	100 MW
200 MW, 4-hr	Category 2, non-consecutive (implies two cycles)	200 MW
100 MW, 8-hr	Category 2, consecutive	100 MW
100 MW, 8-hr	Category 3, consecutive (implies single cycle)	50 MW
100 MW, 8-hr	Category 3, non-consecutive (implies single cycle) ¹⁴	100 MW
200 MW, 8-hr	Category 3, consecutive (implies single cycle)	100 MW
200 MW, 8-hr	Category 3, non-consecutive (implies single cycle) ¹⁵	200 MW
100 MW, 16-hr	Category 3, consecutive	100 MW
100 MW, 16-hr	Category 3, non-consecutive	100 MW

Hence, as long as a storage resource meets the availability requirements of any given MCC bucket category per D.20-06-031, they should be counted at the full discharge capability they would have during the predetermined times included in the MCC framework. This proposal represents a feasible modification to the RA structure that could ease the transition to longer-term proposals such as those made by the Joint Parties and PG&E. CESA views this proposal as a bridge from the status quo to a framework where energy and capacity characteristics both inform the

¹⁴ Non-consecutive participation of an 8-hr resource would imply a charging period from 9:01-16:59 in Day N and a discharging period from 17:00 in Day N to 9:00 in Day N+1, for example. While in reality this would be consecutive dispatch, it would still be considered non-consecutive given the availability definitions are established within a single day.

¹⁵ See above.

value of storage resources. In order to minimize the potential disruptions associated with this recommendation, CESA opposes any modification to the FHR for the entire energy storage resource class, when resource-specific approaches such as the one above could address the near-term hourly energy needs.

B. The Commission should work towards linking a resource’s must-offer obligation (“MOO”) to the specific MCC bucket for which it is shown.

As noted in the previous section, this proposal does not seek to revise the definition of availability adopted by the Commission in D.20-06-031. As stated in the decision, a resource’s availability is determined by its physical capability of dispatching the entire capacity designated in the given MCC bucket in any and all hours associated with the minimum criteria for that bucket.¹⁶ Moreover, the Commission has determined that availability relates to the resource’s ability to economically bid or self-schedule the entire capacity designated in the given bucket in any and all hours associated with the minimum criteria for that bucket.¹⁷ To enable our proposal, we recommend that specific hours be included within the availability definition of each of these categories to meet energy needs across the day. Moreover, having specific hours associated to each bucket eases the compliance of the Commission’s adopted definition of availability.

In the context of CESA’s proposal, resources shown for Categories 1 through 3 will have an obligation to be fully available for four, eight, and sixteen hours, respectively. CESA additionally proposes that Categories 2 and 3 include consecutive and non-consecutive availability options in order to align the requirements with periods of increased grid stress. With these modifications in mind, and considering the currently applicable definition of availability, the Commission should work towards a framework that incorporates energy- and use-limited resources into the RA framework by requiring them to offer their output in a manner consistent with the definitions included in the updated MCC framework. This modification of MOOs in a

¹⁶ D.20-06-031, at 54.

¹⁷ *Ibid.*

manner that relates to the MCC buckets assets are shown for will reduce the uncertainty surrounding the counting of storage assets.

To do so, CESA recommends that the Commission and the CAISO collaborate closely in order to identify non-consecutive 8- and 16-hour energy needs based on system-wide grid stress. The study performed by the CAISO for the purposes of incorporating forced outage data into the RA program presents a promising starting point, as it could additionally ease the integration of UCAP into the RA Program. Establishing clear periods for RA availability is fundamental to leverage preferred energy- and use-limited resources as it provides a reasonable framework for multi-use applications (“MUAs”). By defining clear periods when use- and energy-limited resources are completely needed for capacity these assets could be potentially freed to provide other grid services during the rest of the day.

Aligning the MOOs of resources to the periods for which they are shown within the MCC framework would also ease the transition to a structure such as the one proposed by PG&E in its slice-of-day proposal. As noted by PG&E in their December 2020 filing, their proposal would modify the MOOs from being applicable to all hours, to only apply for the slices in which resources are shown.¹⁸ As such, by commencing this link between the periods a resource must be available given the MCC bucket it is shown for and the MOOs, the Commission would be able to ease the transition to a framework alike PG&E’s, minimizing market disruption. In addition, the application of this proposal could support other proposals, such as the ones put forth by the Joint Parties. In their revised Track 3B.2 proposal, the Joint Parties note that one potential issue with their recommendations relates to the relationship between their proposed net qualifying energy (“NQE”) parameter and the MOOs.¹⁹ The Joint Parties also recognize the possibility of a resource depleting its NQE prior to the end of the RA compliance month.²⁰ By focusing on the hours on grid stress

¹⁸ PG&E, “Revised Track 3B.2 Proposals of Pacific Gas & Electric Company (U 39 E)”, filed under R.19-11-009 on December 18, 2020, at A-8.

¹⁹ Joint Parties, “Southern California Edison Company (U 338-E) and California Community Choice Association’s Revised Track 3B.2 Proposal”, filed under R.19-11-009 on December 18, 2020, at 8-9.

²⁰ *Ibid.*

for the establishment of MOOs for energy- and use-limited assets (such as energy storage) this proposal could mitigate said concern and ensure the NQE of resources is used in the periods of greater need.

III. CONCLUSION.

CESA appreciates the opportunity to submit this revised Track 3B.1 proposal and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jin Noh', written in a cursive style.

Jin Noh
Policy Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: January 28, 2021