## 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 COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON ORDER INSTITUTING RULEMAKING EMERGENCY RELIABILITY

Roger E. Collanton General Counsel Anthony J. Ivancovich Deputy General Counsel Jordan Pinjuv Senior Counsel California Independent System 250 Outcropping Way Folsom, CA 95630

Tel: (916) 351-4429 Fax: (916) 608-7222

Email: jpinjuv@caiso.com

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#### I. Introduction

The California Independent System Operator Corporation (CAISO) files these reply comments on the Commission's Order Instituting Rulemaking for summer 2021 electric reliability. The CAISO appreciates the wide range of solutions the Commission and parties have suggested to meet summer 2021 system reliability needs. The Commission should modify the resource adequacy program to ensure load serving entities and the CAISO can employ all available tools to acquire available, needed resources for summer 2021. The Commission should update resource adequacy requirements, which would enable the CAISO to more effectively use its capacity backstop procurement mechanisms to meet summer 2021 needs, if necessary. Without changes to the resource adequacy program, the CAISO's resource adequacy-related backstop authority is limited and not aligned with all current resource needs, which are most significant during the evening hours, when solar output is near or at zero.

Based on the resource stack analysis included with its opening comments, the CAISO recommends the Commission adopt a 20% planning reserve margin (PRM) for its load serving entities for the period of June through October 2021. The 20% PRM will ensure sufficient operating reserves, address above average demand, and account for forced outages more accurately. Importantly, the CAISO also recommends applying the 20% PRM to a critical hour after peak to ensure there are sufficient resources that can provide energy to serve the net demand.

The CAISO agrees with Southern California Edison Company's (SCE) suggestion that the Commission assess summer 2021 system reliability needs based on a stack analysis focused

on the critical net demand peak hours in the months of August and September—though the analysis should be performed from June through October.<sup>1</sup> This will effectively allow the Commission to determine the amount of resources needed to ensure summer 2021 system-wide reliability. The CAISO submitted its stack analysis for this purpose, and its analysis shows additional resources are needed to maintain 2021 reliability. The CAISO understands that load serving entity procurement opportunities for summer 2021 may be limited. To account for this, the CAISO agrees with parties' suggestions to centralize procurement if possible and create appropriate accounting mechanisms to ensure procurement actions are cost-effective, feasible, and can be implemented equitably from a procurement obligation and cost allocation standpoint.

Below, the CAISO addresses the key issues the Commission should address to prepare for summer 2021 reliability needs. In addition, the CAISO responds to specific issues raised by other parties in the response to the questions posed in the OIR.

#### II. Discussion

### A. The Commission Should Update the Resource Adequacy Program For Summer 2021.

In opening comments, several parties recommended the Commission defer to the CAISO's backstop procurement authority to meet summer 2021 needs, rather than modify the resource adequacy program requirements. The CAISO acknowledges its backstop procurement can play an important role in maintaining reliability for summer 2021, but changes to the resource adequacy program are fundamental to optimize the CAISO's backstop authority and ensure the CAISO can use it in the most timely, efficient, and effective manner.

The CAISO's Capacity Procurement Mechanism (CPM) is the primary backstop mechanism to meet system resource needs. The CPM allows the CAISO to conduct procurement (1) to backstop for monthly or annual load serving entity resource adequacy showing deficiencies, (2) based on a significant event, or (3) resulting from an exceptional dispatch to meet real-time market needs.<sup>2</sup> Each of these backstop procurement options can play a role in meeting summer 2021 needs, but the backstop for annual or monthly resource adequacy deficiencies best allows the CAISO to meet reliability needs by undertaking effective advance

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<sup>&</sup>lt;sup>1</sup> SCE, Comments on Order Instituting Rulemaking, R.20-11-003, November 30, 2020. p. 16. (SCE opening comments)

<sup>&</sup>lt;sup>2</sup> See CAISO Tariff Sections 43A.2.3 through 43A.2.5.

procurement for needed resources and avoiding a "last minute scramble" to find needed resources that may not be available in that late timeframe. To effectively meet summer 2021 resource adequacy needs, the Commission should increase its resource adequacy requirements to allow the CAISO to use its monthly deficiency process to conduct any necessary procurement in advance of the applicable resource adequacy month.

In contrast, exceptional dispatch and significant event CPM authority are much less effective in addressing summer 2021 system needs. The CAISO's exceptional dispatch CPM is limited to remedying real-time market issues, which greatly limits any opportunity for advance procurement. The CAISO can exercise its exceptional dispatch authority post-day ahead and in real-time.

The CAISO can make significant event CPM designations when an event causes a material difference from resource adequacy program assumptions or a material change in system conditions that threatens a failure to meet reliability criteria. For example, during the summer 2020 extreme heat events, the CAISO called a CPM significant event, but was only able to procure limited capacity given the stressed grid conditions throughout the west with the remaining resources that did not already have a resource adequacy contract or contract with another Balancing Authority at the time. Having to wait until extreme heat wave conditions to actually emerge, or heat wave forecasts become firm to procure backstop capacity is suboptimal and risks capacity being unavailable when needed. Rather than relying on the CAISO's exceptional dispatch and significant event CPM authority to meet reliability needs, the Commission should modify the resource adequacy program to increase the PRM, as the CAISO discussed in opening comments. This will ensure the CAISO can use its CPM to backstop to the updated resource adequacy requirements, thereby allowing effective advance procurement. Without changes to the resource adequacy program, both the Commission and the CAISO will be hamstrung in preparing for summer 2021 system resource needs. Backstopping to the

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<sup>&</sup>lt;sup>3</sup> In opening comments, several parties noted the CAISO can use its significant event CPM authority to backstop to meet changes in the load forecast. *See* CAISO Tariff Appendix A, definition of CPM Significant Event ("A substantial event, or a combination of events, that is determined by the CAISO to either result in a material difference from what was assumed in the resource adequacy program for purposes of determining the Resource Adequacy Capacity requirements, or produce a material change in system conditions or in CAISO Controlled Grid operations, that causes, or threatens to cause, a failure to meet Reliability Criteria absent the recurring use of a non-Resource Adequacy Resource(s) on a prospective basis.")

resource adequacy program will enable the CAISO to avoid last minute procurement and the risk accompanying it.

### B. The Commission Should Adopt a 20% PRM for Summer 2021.

As the CAISO noted in opening comments, the Commission should modify its resource adequacy program to require a 20% PRM for June through October 2021. Further, the Commission should apply the PRM to both the gross peak and the most critical hour after peak—which the CAISO identified as hour ending 8:00 p.m. in its opening comment stack analysis—when solar production is very low or zero. The CAISO's summer 2021 resource stack analysis demonstrates the need to increase the PRM because all existing and planned system resources will likely be needed to maintain reliability.

Several parties raised concerns that updating 2021 resource adequacy requirements potentially could unduly burden load serving entities. The CAISO acknowledges there is little time for load serving entities to conduct additional procurement before summer 2021, especially given the expedited timeline for this proceeding. However, as explained above, the Commission should update the resource adequacy requirements, including the increased PRM, to allow the CAISO to use its CPM authority most effectively.

To address any undue burden concerns, the CAISO recommends the Commission adopt Pacific Gas & Electric Company's (PG&E) and SCE's suggestions to centralize additional procurement efforts and allow procurement entities to establish a memorandum account, prior to a final Decision in this proceeding, to allow for cost recovery for expedited procurement efforts.<sup>4</sup> These mechanisms will facilitate a coordinated effort to obtain available and effective resources to meet summer 2021 resource needs. The CAISO also recommends waiving Commission-applied penalties associated with failing to meet the increased 2021 PRM as long as load serving entities demonstrate good faith efforts to procure. Given the late notice and the availability of resources, applying penalties to individual load serving entities is not likely to be effective or fair.

<sup>&</sup>lt;sup>4</sup> SCE opening comments, p. 4; PG&E, Comments on Order Instituting Rulemaking, R.20-11-003, November 30, 2020, p. 3. (PG&E opening comments)

### C. The Commission Should Direct Immediate Procurement to Meet Summer 2021 Needs.

The CAISO agrees with SCE that additional procurement is prudent given the effects of climate change and the need to address the net demand period after sunset.<sup>5</sup> As SCE notes, its loss of load expectation (LOLE) analysis is "heavily dependent on the assumption that the 1,650 MW of resources to be procured pursuant to D.19-11-016's August 2021 procurement requirement are all 4-hour battery storage (or resources with like characteristics) and will come online in July and August 2021." In addition, there is significant uncertainty regarding how much energy existing resources may provide. For example, SCE assumes in its model that imported power was "fixed at an amount of 6,935 MW, which breaks down into 5,000 MW plus availability for contracted imports from Hoover Dam, Palo Verde Nuclear Generating Station, and Intermountain Plant."

During the last five years (2015-2020) from May through October, there has only been one monthly resource adequacy showing with resource adequacy contracted imports exceeding this level. Specifically, in September 2020 load serving entities showed almost 8,500 MW of resource adequacy imports. The CAISO's analysis reflected a lower level of resource adequacy imports based on the historical average, but if the higher imports included in SCE's analysis are achievable, the Commission should order load serving entities to procure those additional imports by summer 2021. Based on load serving entities' year-ahead resource adequacy showings on October 30, 2020, there is currently less import capacity under contract 2021 than there was for the 2020 year-ahead showings. As supplies tighten across the West, the Commission should authorize procurement sooner rather than later because import resources do not face the same construction challenges as new or incremental builds.

#### D. Reply Comments to Scoping Memo Questions

Question 1: Should the Commission consider directing the IOUs to design a new paid advertising program for distributing CAISO's Flex Alerts in various outlets, including social media? If so, how should the Commission authorize a budget dedicated to this purpose and what measures and budget level should be considered?

<sup>&</sup>lt;sup>5</sup> SCE opening comments, p. 17.

<sup>&</sup>lt;sup>6</sup> SCE opening comments, p. 17.

<sup>&</sup>lt;sup>7</sup> SCE opening comments, p. A-4.

In opening comments, the IOUs correctly noted that the Flex Alert campaign currently operates through unpaid, earned media outreach to customers. As SCE noted in its comments, the CAISO and the IOUs coordinate as possible to conduct outreach that is complementary to the Flex Alert campaign. PG&E's comments correctly indicated the Commission previously determined that the planning and administration of the Flex Alert campaign would be transferred to the CAISO. However, the Commission made this determination on the basis that the CAISO managed only the earned media aspects of the program.

The CAISO has continuously supported continued paid media advertising to support the Flex Alert messaging, but the CAISO does not maintain the staff or resources to properly oversee or administrate such a campaign. The CAISO believes that it is in the public interest to fund efforts to modernize the Flex Alert program and messaging. The effort should be administrated by an IOU, as was previously the practice, or through another entity that is situated to oversee such a campaign.

Question 6: Should the Commission allow BTM hybrid-solar-plus-storage assets to participate and discharge their available capacity in excess of onsite load (and thus export to the grid) and receive compensation for the load reduction, including exported energy, under ELRP? Should this capability be expanded to include BTM stand-alone storage as well? Are there any Rule 21 or safety and reliability considerations that need to be addressed to permit storage, with or without NEM pairing, to export energy while participating in the ELRP? How should any safety and reliability issues be addressed?

The CAISO agrees with comments from PG&E, San Diego Gas & Electric (SDG&E), and SCE that behind-the-meter resources, regardless of whether they are hybrid-solar-plus-storage assets or otherwise, should adhere to Rule 21 safety and reliability requirements.<sup>8</sup> Allowing export from behind-the-meter systems that have not been studied and approved for export require additional analysis through the interconnection process as well as tools for visibility and control and updates to baselines and assessment of dual participation rules.<sup>9</sup> The CAISO agrees with SCE that such analysis is likely infeasible for summer 2021.<sup>10</sup>

Question 9: If the CEC, CAISO, or the CPUC conducts additional analyses regarding Summer 2021 load forecasts, should the Commission consider a mechanism to update RA requirements in April for the summer of 2021 or would it be appropriate for CAISO to use

<sup>10</sup> SCE opening comments, p. 11.

<sup>&</sup>lt;sup>8</sup> PG&E opening comments, pp. 7-8; SDG&E, Comments on Order Instituting Rulemaking, R.20-11-003, November 30, 2020, response to Question 6; SCE opening comments, pp. 9-11.

<sup>&</sup>lt;sup>9</sup> PG&E opening comments, p. 8.

its capacity procurement mechanism (CPM) to procure additional capacity for the summer of 2021, should it be deemed necessary?

As explained above, the CAISO supports modifying the Commission's resource adequacy program to require a 20% PRM for June through October 2021. This will allow the CAISO to effectively use its CPM mechanism to procure additional capacity for summer 2021. The CAISO notes that in two instances its initial comments incorrectly referred to July through October—rather than June through October—as the period in which the increasing PRM should apply. The CAISO clarifies that the 20% PRM should apply to resource adequacy requirements for June through October 2021.

Question 14: Are there other changes to the BIP that would make it more effective to meet load under a variety of conditions during the summer of 2021 (e.g., expansion of the 2% cap, mid-year enrollment, trigger notification time, etc.)?

The CAISO agrees with comments against raising the 2% cap on BIP enrollment. These programs will not be available to serve peak demand based on a 1-in-2 year load under day-today operations. Instead, they displace other resource adequacy resources that can. The CAISO's stack analysis clearly shows the system needs more energy, especially to serve the net demand after peak, rather than capacity that is only called after an emergency trigger. Even under emergency conditions demand response resource availability is limited. The CAISO's Department of Market Monitoring (DMM) noted that for August 14 and 15, 2020 "even if performance of demand response is high relative to the amount dispatched in the CAISO market, the amount of demand response that was available relative to the amount of resource adequacy capacity requirements met by demand response was relatively low." The DMM makes four recommendations on steps that should be taken before expanding reliance on demand response capacity: "(1) re-examining demand response counting methodologies, (2) adopting the [CA]ISO's recommendation to remove the planning reserve margin adder applied to demand response capacity counted towards system resource adequacy requirements under [Commission] jurisdiction, and (3) adopting a process to manually dispatch available demand response shown on resource adequacy supply plans before issuing exceptional dispatches to non-resource

<sup>&</sup>lt;sup>11</sup> CAISO Department of Market Monitoring, *Report on system and market conditions, issues and performance: August and September 2020*, p. 5

adequacy capacity and curtailing firm load."<sup>12</sup> The Commission should not reassess the 2% cap on BIP enrollment without first addressing solutions to these identified issues.

#### III. Conclusion

The CAISO appreciated the opportunity to provide reply comments and looks forward to working collaboratively with the Commission to address summer 2021 electric reliability needs.

Respectfully submitted

### By: /s/ Jordan Pinjuv

jpinjuv@caiso.com

Roger Collanton
General Counsel
Anthony Ivancovich
Deputy General Counsel
Jordan Pinjuv
Senior Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
T: (916) 351-4429
F: (916) 608-7222)

Attorneys for the California Independent System Operator Corporation

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<sup>&</sup>lt;sup>12</sup> *Id.*, p. 5.