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)

LEGAL AND POLICY REPLY BRIEF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

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The California Independent System Operator Corporation (CAISO) submits its legal and policy reply brief pursuant to the *Assigned Commissioner's Scoping Memo and Ruling* (Scoping Memo) issued on December 21, 2020.

I. Introduction

The CAISO greatly appreciates and strongly supports the Commission's recent Decision[1] directing additional capacity procurement for summer 2021 to include imports as an eligible resource for investor owned utility (IOU) procurement. The CAISO urges the Commission to ensure all incremental capacity is resource adequacy capacity subject to applicable resource adequacy tariff provisions by increasing the planning reserve margin (PRM) and requiring imports to be deliverable. The CAISO also provides responses to opening briefs regarding the proposed emergency load reduction program (ELRP) and demand response-related rules.

II. Discussion

A. The Commission Should Increase the Planning Reserve Margin to Appropriately Address System Needs.

The Utility Reform Network (TURN) and other parties oppose increasing the PRM to 17.5% because the CAISO's resource stack analysis only shows a deficiency in system resources

[1] See *Decision Directing Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to Seek Contracts for Additional Power Capacity for Summer 2021 Reliability*. (The Commission approved the proposed decision, with revisions, on February 11, 2021. As a result, the Decision has not been assigned a formal number at this point. The Agenda Decision approved by the Commission is accessible at the following link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M364/K581/364581721.PDF).

during September. However, TURN does not oppose requiring load serving entities (LSEs) to meet a 15% PRM at the net peak hour.[2] Similarly, the California Community Choice Alliance (CalCCA) argues the Commission to cap any incremental procurement at the September shortfall amount (1,073 MW).[3] The Public Advocates Office also argues incremental procurement should be limited to September 2021, stating "[t]here is no need for additional resources in the other months of summer 2021.[4]

These arguments fail to consider that setting system resource adequacy requirements based on a 15% PRM at the peak demand hour provide a significantly lower reserve margin at the net peak hour after accounting for the reduction in solar output. Based on the CAISO's analysis, increasing the PRM to 17.5% at the peak demand hour, while requiring incremental capacity to be effective during the late evening period, is a conservative step toward meeting the 15% PRM at this later critical hour.

As noted in the CAISO's opening brief, requiring load serving entities to procure resource adequacy capacity sufficient to meet the 15% PRM at the demand peak results in an implied PRM at hour ending (HE) 8 p.m. that ranges from 3-14% from June through September, after accounting for the reduction output from solar resources. Table 1 provides the calculations for this relationship.[5]

Table 1: Implied PRM for Load at Hour Ending 8 p.m. PDT

	Load at 8 p.m. PDT	RA obligation at 8 p.m. PDT (15% PRM) ([A] x 1.15)	Solar Capacity on 2021 NQC List	RA obligation at 8 p.m. PDT net of solar NQC ([B] - [C])	Implied PRM for load at 8 p.m. PDT ([D]/[A] -1)	Increase in RA obligation at peak (difference between 15% and 17.5% PRM)	Implied PRM for load at 8 p.m. PDT with PRM increase from [F] (([D] + [F])/[A] - 1)
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
June	41,104	47,270	4,148	43,121	5%	1,036	7%
July	43,306	49,802	5,281	44,521	3%	1,112	5%
August	43,644	50,191	3,594	46,596	7%	1,117	9%
September	44,861	51,591	1,895	49,696	11%	1,130	13%
October	37,271	42,861	325	42,537	14%	932	17%

[2] TURN Opening Brief, pp. 11-13.
[3] CalCCA Opening Brief, p.15.
[4] Public Advocates Office Opening Brief, p. 5.
[5] Table 1, column [E] above corrects for a miscalculation in Table 1, column [H] in CAISO's opening brief.

Column [B] shows the total resource adequacy obligation at hour ending (HE) 8 p.m. Pacific Daylight Time (PDT) based on the forecasted 2021 load for the peak day (column [A]) in each month with a 15% PRM. Column [E] shows that if the obligation is met with the 2021 net qualifying capacity (NQC) list net of solar, the implied PRM is below 15% for all months. Column [F] shows the resulting increase in the resource adequacy obligation if the Commission increases the PRM at peak from 15% to 17.5%, consistent with the CAISO's recommendation. In all months except October, the increased resource adequacy obligation at peak is less than the 2021 solar NQC. As a result, the implied PRM at 8 p.m. is still below 15% for all months except October, even after increasing the PRM on peak to 17.5% as shown in column [G]. In other words, the CAISO's proposed 17.5% PRM is very conservative compared to the loss in solar NQC for summer 2021 because there is no explicit resource adequacy obligation for the period after sunset. As discussed in CAISO's opening briefs, there is no direct validation of supply plans at HE 8 p.m. for summer 2021.[6] To bridge this gap, the Commission must both (1) increase the PRM at peak and (2) require any incremental procurement authorized be effective at that later hour.

As noted in CAISO's opening brief, increasing the PRM provides the benefit of requiring incremental procured capacity to be designated as resource adequacy capacity, thus making it subject to both the CAISO's and the Commission's resource adequacy program rules. Combined with appropriate scheduling of load, resource adequacy capacity has a higher priority in the CAISO scheduling system. Outside of the CAISO market rules, the Commission could require that contracts for procured resources provide that such resources cannot be a designated resource to support a high priority export, and possibly contain noncompliance measures. Although the CAISO cannot validate compliance with this requirement and prevent such a transaction from occurring through its markets, the CAISO may be able to notify the resource's Scheduling Coordinator if the resource is designated to serve an export.

1. The Commission Should Ensure Imports are Deliverable.

The CAISO supports the Commission's recent decision requiring the IOUs to procure additional capacity for summer 2021 and the revisions allowing import procurement to meet

[6] CAISO Opening Brief, p. 6.

summer 2021 needs.[7] However, it is critical the resource adequacy requirements apply to any newly procured resources under this decision. For imports, this will require maximum import capability (MIC) be available to deliver the import into the CAISO balancing authority area.

The CAISO supports PG&E's and SCE's general position to allow for IOU procurement and cost allocation of firm imports if there is MIC available to support such imports. The CAISO has an existing process to release and provide information on unused MIC that can be used to support SCE's and PG&E's proposals to procure additional imports after other load serving entities make their monthly resource adequacy showings (*i.e.*, during the monthly cure period). The CAISO posts information about bilateral transfers on a public website, including the name of the transferring parties, MW, branch group, dates, and price.[8]

2. The Emergency Load Reduction Program Should not Erode the Integrity of the Resource Adequacy Program or CAISO Operations.

The CAISO reiterates the emergency load reduction program (ELRP) should be incremental to the resource adequacy program to attract additional energy or load curtailment outside of the CAISO market on a temporary "insurance" basis to address the pressing needs during summer 2021 and 2022.

If the Commission allows for dual participation of resources already in the resource adequacy program, it must ensure that additional participation in ELRP does not erode or undermine the resource adequacy program, discourage resources from responding to CAISO dispatch, or enable resource adequacy resources shirking their responsibilities and decrease their participation in the CAISO markets.

Furthermore, if the Commission decides to use a CAISO-originated announcement (*i.e.*, an Alert or Stage Emergency declaration) as the trigger to activate the ELRP, the CAISO stresses that it will not dispatch this load modifying program because the program is not integrated into the CAISO's market systems, and the CAISO has no operational control over or visibility into this program. In this regard, the ELRP is more akin to the IOUs' critical peak pricing program,

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[7] *See Decision Directing Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to Seek Contracts for Additional Power Capacity for Summer 2021 Reliability*, https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M364/K581/364581721.PDF.

[8] As required by CAISO Tariff Section 40.4.6.2.1, step 8 of the MIC process. *See:* http://www.caiso.com/Documents/2021AdditionalBi-LateralTransfersofImportCapability.pdf.

which can be deployed based on a variety of triggers, such as a CAISO-originated announcement, high load forecast, or a heat wave event.

Although the CAISO continues to advocate for using the ELRP only after resource adequacy capacity is used, some resources may need earlier notification. Thus, activating ELRP after the day-ahead market run, but prior to the real-time market, may strike the appropriate balance. The CAISO can declare an Alert after the day-ahead market run to signal anticipated operating reserve deficiencies for the next operating day, which could serve as the trigger for the ELRP.[9] As noted in opening briefs, the CAISO will begin to transition from the current system of Alerts, Warnings, and Emergencies to the North American Electric Reliability Corporation's (NERC's) Energy Emergency Alerts (EEA) standard. The CAISO expects both standards to be in place for summer 2021, but is planning to transition officially to EEA notices only in summer 2022.

Lastly, the CAISO supports leveraging the ELRP as a voluntary, pay-for-performance pilot for evaluating non-resource adequacy export-capable behind-the-meter systems, subject to addressing distribution utility company safety concerns.

B. The Commission Should Approve Various Demand Response-Related Proposals.

The CAISO generally support the various efforts to increase calls and flexibility within existing demand response programs.

In terms of baselines that affect demand response programs participating as resource adequacy, the CAISO shares concerns any change for this summer may not be feasible or advisable without further data and analytics. The CAISO conducted an extensive stakeholder-driven Baseline Analysis Working Group in 2017, where new baseline methods where discussed, professionally evaluated for accuracy, precision, fit and bias. Baselines were subsequently approved by stakeholders and the CAISO Board of Governors.[10] The Federal Energy Regulatory Commission approved the new baselines in 2018. As such, demand response baselines are codified in the CAISO tariff, and there is insufficient time to conduct another round of analyses

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[9] *See:* http://www.caiso.com/Documents/SystemAlertsWarningsandEmergenciesFactSheet.pdf.

[10] The Baseline Analysis Working Group worked under the Energy Storage and Distributed Energy Resources Phase 2 initiative. Info, including the *California ISO Baseline Accuracy Assessment*, performed by Nexant, can be found here: https://stakeholdercenter.caiso.com/StakeholderInitiatives/Energy-storage-and-distributed-energy-resources#phase2.

and a stakeholder process to justify filing and implementing changes at this time. However, the CAISO supports SCE's suggestion to conduct another EM&V study on baselines given recent operational experience.[11] The CAISO recommends that the evaluation include assessment of current baseline day-of adjustment limits. The evaluation should also focus efforts on how control group baselines might be employed more broadly, specifically for demand response providers who may lack a sufficiently large customer base to develop a control group with between 200 and 400 participant sample size.[12]

Finally, the CAISO supports efforts to enable all load serving entities to obtain accurate and timely meter data to inform forecasting.

III. Conclusion

The CAISO appreciates the opportunity to respond and strongly urges the Commission to both (1) increase the PRM at peak to 17.5% and (2) require any incremental procurement authorized be effective at that later hour.

Respectfully submitted

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[11] SCE Opening Brief, p. 23.
[12] California ISO Baseline Accuracy Working Group proposal, June 6, 2017, baseline recommendations page 4, http://www.caiso.com/InitiativeDocuments/2017BaselineAccuracyWorkGroupFinalProposalNexant.pdf.