

**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 BRIEF OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

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The California Independent System Operator Corporation (CAISO) submits this legal and policy opening brief pursuant to the *Assigned Commissioner’s Scoping Memo and Ruling* (Scoping Memo) issued on December 21, 2020. This brief provides the CAISO’s policy recommendations to ensure reliable electric service for summer 2021 in the event of an extreme weather event.

I. Introduction

The CAISO appreciates the Commission’s efforts to establish this proceeding and pursue immediate action to ensure reliable electric service for summer 2021. The Commission has acted swiftly and decisively to increase the procurement efforts of its load serving entities. The Proposed Decision issued on January 8, 2021 properly directs and authorizes investor-owned utilities to contract for available incremental capacity to serve peak and net peak demand in summer 2021. The Proposed Decision directs utilities to consider procuring incremental capacity from existing power plants, generation at-risk of retirement, and incremental energy storage capacity.¹ The Commission appropriately issued the Proposed Decision on an accelerated timeframe, and implementing it will be a critical first step in a focused and coordinated effort to procure the resources necessary to meet upcoming summer capacity needs.

¹ Proposed Decision, p. 11.

The Commission should continue its effort to secure necessary capacity for summer 2021 by taking the following steps:

- **Increasing the Planning Reserve Margin to 17.5% for June through October 2021²** – The current 15% planning reserve margin is insufficient to meet reserve requirements, accounting for higher demand, and realistic forced outage rates. In addition, it fails to require load serving entities to secure adequate resources to meet the net peak demand. Finally, increasing the planning reserve will provide the best opportunity to ensure incremental resource procurement and performance.
- **Authorizing Incremental Import Procurement As Soon As Possible** – The CAISO is an import dependent system and forward import contracts are critical in meeting summer 2021 reliability needs.
- **Funding the Flex Alert Paid Advertising Campaign** – The Flex Alert program has historically delivered noticeable and helpful load conservation when exercised during critical and highly stressed system conditions.
- **Adopting an Emergency Load Reduction Program (ELRP)** – An effective ELRP that is in addition to the resource adequacy program can provide insurance value during stressed system conditions.

It is critical for the Commission to take these steps to secure incremental resources and demand reduction for summer 2021. The CAISO's resource stack analysis demonstrates that all existing system resources will be necessary to maintain reliability this summer. Despite the clear capacity need, several existing resource owners have recently filed requests to retire their facilities.³ The Commission must take action to ensure all available resources are contracted for and available as resource adequacy capacity for summer 2021.

² For simplicity, the CAISO refers to June through October 2021 as “summer 2021” throughout this filing.

³ Midway Sunset Cogeneration Company (MSCC) submitted notice of retirement for two Midway Sunset Cogen generating units, effective December 31, 2020, with the third unit having already been mothballed earlier in 2020

II. Discussion

A. The Commission Should Set System Resource Adequacy Requirements for June through October 2021 with a 17.5% Planning Reserve Margin.

1. Operating Reserve Requirements, Accounting for Higher Demand, and Forced Outage Rates Support Increasing the Planning Reserve Margin.

The CAISO's testimony and other filings in this proceeding show the current 15% planning reserve margin is insufficient to provide sufficient resource adequacy capacity to ensure reliable electric service. The 15% planning reserve margin has not adapted to meet rapidly and dramatically changing system conditions, climate change consequences, and evolving resource performance characteristics. As the CAISO explained in testimony, the Commission originally adopted the 15% planning reserve margin to ensure reliability while meeting operating reserve requirements, accounting for higher demand, and considering potential forced outages.⁴ The current construct does not meet this goal. Accordingly, the CAISO recommends the Commission increase the planning reserve margin to 17.5%.

The CAISO must plan to maintain a six percent operating reserve margin to meet North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) operating standards.⁵ This means the remaining nine percent of the total planning reserve margin must be sufficient to account for variations from the demand forecast used to establish resource adequacy requirements (*i.e.*, higher demand) and potential forced outages.

The Commission currently uses the California Energy Commission's (CEC) 1-in-2 demand forecast to establish monthly system resource adequacy requirements. The CAISO compared this forecast with the CEC's 1-in-5 demand forecast and found the latter to be 4.3% higher.⁶ At a minimum, the demand component of the planning reserve margin should reflect the difference between a 1-in-2 forecast and a 1-in-5 forecast, which is consistent with current practice. The CAISO's recommendation to increase the

⁴ Opening Testimony of Jeff Billinton on Behalf of the CAISO (Billinton Testimony), p. 2:19-24.

⁵ Billinton Testimony, p. 3:2-11.

⁶ Billinton Testimony, p. 3:18-19. The 1-in-5 demand forecast is 4.3% higher than a 1-in-2 demand forecast.

planning reserve margin to 17.5% assumes a four percent allowance for higher demand. The CAISO stresses, however, that a 1-in-5 forecast does not necessarily cover all extreme weather events and future conditions the state might face as the result of climate change. The CEC's 1-in-10 demand forecast, for example, is 6.6% higher than the 1-in-2 forecast. To cover such extreme weather events, the Commission would need to increase the planning reserve margin even more than the amount the CAISO recommends.⁷

Assuming, however the Commission adopts a planning reserve margin that accounts only for a four percent margin for higher demand, the current 15% planning reserve margin would assume an implied forced outage rate of five percent. CAISO's review of forced outage rates indicates this level is far too low. NERC Generator Availability Data System (GADS) demonstrates forced outage rates exceed five percent. The GADS data show a forced outage rate of approximately 7.2%, based on the weighted equivalent forced outage rate (WEFOR), which measures the probability that a group of units will not meet their generating requirements because of forced outages or forced derates.⁸

Based on this data, the CAISO recommends adjusting the planning reserve margin for June through October 2021 to account for more realistic, higher expected forced outage rates. Specifically, the CAISO recommends planning for reliable service with a 7.5% expected forced outage rate. A 7.5% forced outage rate combined with the six percent margin for planned operating reserves and the four percent allowance for higher demand, produces a 17.5% planning reserve margin. The CAISO's recommends a 17.5% total planning reserve margin for June through October 2021. Given climate change, resource fleet changes, and more realistic forced outage numbers, a 17.5% planning reserve margin better reflects the expected conditions the electric system will be facing than the outdated 15% planning reserve margin.

⁷ California Energy Commission, 2019 Integrated Energy Policy Report (IEPR) mid-mid managed 2021 hourly demand forecast for the CAISO footprint. Form 1.5b and 1.5d.

⁸ Billinton Testimony, p. 4:1-5.

2. The Changing Resource Fleet Supports Adopting a Higher Planning Reserve Margin.

The Commission applies the current 15% planning reserve margin to the coincident demand peak to set monthly system resource adequacy requirements. The current practice assumes resources available at the demand peak will be available during other hours of the day. However, given the dramatically increasing number of variable and intermittent resources, this assumption is no longer accurate, especially with solar resources generating at predictably lower levels during evening hours. Table 1 below illustrates this impact. Column [B] shows the total resource adequacy obligation across the CAISO footprint based on the forecasted 2021 peak load of each month, plus a 15% planning reserve margin. Column [D] nets out the solar capacity from the 2021 net qualifying capacity (NQC) list to reflect the fact there is little to no solar generation at hour ending (HE) 8 p.m. PDT. Column [G] shows that without solar resources, a 15% planning reserve margin at the peak yields a much lower implied planning reserve margin at 8 p.m. PDT.⁹ Instead, the implied planning reserve margin ranges from a low of six to 14% as shown in column [H].

**Table 1: Implied 2021 Planning Reserve Margin for Hour Ending 8 p.m. PDT
(MW)¹⁰**

Month	RA obligation (15% PRM plus load at peak)	Solar capacity on 2021 NQC list	RA obligation net of Solar (([B] - [C]))	Load at 8 p.m. PDT	15% PRM plus load at 8 p.m. PDT	Difference between RA obligation net of solar and 15% PRM plus load at 8 p.m. PDT (([D] - [F]))	Implied PRM for load at 8 p.m. PDT
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
June	47,635	4,148	43,486	41,104	47,270	(3,784)	6%
July	51,157	5,281	45,877	43,306	49,802	(3,925)	6%
August	51,381	3,594	47,786	43,644	50,191	(2,405)	9%
September	51,962	1,895	50,067	44,861	51,591	(1,523)	12%
October	42,861	325	42,537	37,271	42,861	(325)	14%

⁹ This assumes that solar resources are shown to meet the 15% planning reserve margin at peak, consistent with their expected load carrying capability value.

¹⁰ Underlying data calculated from Attachment B to the CAISO's November 30, 2020 Comments on Order Instituting Rulemaking (<http://www.caiso.com/Documents/Nov30-2020-AttachmentB-Comments-OrderInstitutingRulemakingEmergencyReliability-ExtremeWeatherEvent-R20-11-003.xlsx>).

The January 8, 2021 Proposed Decision explicitly addresses this outdated assumption by requiring investor-owned utilities to procure incremental resources “deliverable during both the peak and net peak demand periods.”¹¹ The CAISO agrees with the Proposed Decision’s directive, but also emphasizes the concern regarding resource deficiencies in the critical hours after peak supports increasing the overall planning reserve margin.

The CAISO initially proposed applying the increased planning reserve margin at 8 p.m., when demand is still relatively high, but solar resource generation is at or near zero. However, implementing a validation process for an 8 p.m. resource adequacy showing before summer 2021 is likely infeasible at this point. Instead, the Proposed Decision’s directive to procure resources effective both at the peak and net peak demand periods, combined with the CAISO’s proposed increased planning reserve margin, should provide increased measures to meet summer 2021 needs. This is because incremental procurement based on increasing the planning reserve margin to 17.5% at peak should result in sufficient capacity to also address the same increase at the net demand peak, assuming that the resources are effective during both times. The CAISO notes that this action is a step in the right direction but does not resolve the resource deficiency. As noted in the discussion around Table 1 above, the current implied planning reserve margins at hour ending 8 p.m. PDT are below 15% for all months from June through October so incremental procurement may only bring the implied planning reserve margin up to the existing standard. For summer 2022, the CAISO will look to take additional action to validate procurement at a later date.

The CAISO’s resource stack analysis supports increasing the planning reserve margin and directing procurement of resources that are effective and deliverable during the net peak period. Table 2 below compares the total CAISO resource stack for June through October 2021 against hour ending 8 p.m. PDT demand plus a 17.5% planning reserve margin. The table also includes a 15% planning margin applied to the hour ending 8 p.m. PDT load.

¹¹ Proposed Decision, p. 11.

**Table 2: Comparison of 2021 Total Resource Stack and Load for HE 8 p.m. PDT
15% and 17.5% Planning Reserve Margin Levels¹²**

Month	Total resource stack with average RA imports (MW)	15% PRM plus load for HE 8 p.m. PDT	17.5% PRM plus load for HE 8 p.m. PDT	Total resource stack minus 15% PRM plus load ([B] – [C])	Total resource stack minus 17.5% PRM plus load ([B] – [D])
[A]	[B]	[C]	[D]	[E]	[F]
June	49,855	47,270	48,297	2,585	1,557
July	51,241	49,802	50,885	1,439	357
August	51,921	50,191	51,282	1,730	639
September	50,518	51,591	52,712	(1,073)	(2,194)
October	47,601	42,861	43,793	4,740	3,808

The results show a distinct difference among the five months. For June and October, the 17.5% margin level is below the total resource stack. This signals that for June and October there may be sufficient NQC available for procurement to satisfy the 17.5% planning reserve margin. In other words, for these two months load serving entities may be able to contract with existing resources to sufficiently respond to the most critical hour after peak. For July and August, the 17.5% margin level is relatively close to the total stack. This signals that for July and August almost all of the existing and planned resources available and able to produce at 8 p.m. are required to satisfy the 17.5% planning reserve margin.

However, the total resource stack for September falls below both the 15% and 17.5% margin level for hour ending 8 p.m. PDT. This means there is insufficient capacity in the CAISO system to meet the system requirement using either planning reserve margin, even when including all of the resources on the CAISO NQC list, new resources expected online by summer 2021, plus an average level of resource adequacy imports. For September, the shortfall between the total resource capacity and the load plus a 15% planning reserve margin is over 1,000 MW and increases to approximately 2,200 MW under a 17.5% planning reserve margin (shown as a negative values in Table

¹² Billinton Testimony, p. 12.

2, columns [E] and [F], respectively). The CAISO notes the results of this analysis are conservative because they do not include any discount for actual resource performance beyond forced outages and the planning reserve margin credit for demand response resources.

3. Increasing the Planning Reserve Margin Provides the Best Opportunity for Incremental Resource Procurement and Performance.

If approved, the January 8, 2021 Proposed Decision will provide a basis for investor-owned utilities to begin procuring incremental resources to meet summer 2021 needs. However, the Proposed Decision does not set specific procurement goals, nor does it require incremental resources be shown on resource adequacy plans. If the planning reserve margin is not increased, new procurement will only displace existing resources and imports, which could lead to no net increase in resource adequacy capacity for summer 2021. In addition, the Commission's incremental procurement directive provides no basis for the CAISO to conduct any additional backstop procurement to meet summer 2021 needs, which does not establish specific resource adequacy procurement obligations. The Commission must increase the planning reserve margin to accomplish these goals.

Increasing the planning reserve margin will require load serving entities to show incremental resources on resource adequacy plans. Only resources included in a resource adequacy plan and a supply plan are subject to CAISO resource adequacy tariff requirements, such as the must offer obligation and the resource availability incentive mechanism (RAAIM). These CAISO resource adequacy tariff requirements ensure resource bidding (through generated bids, if necessary) and incentivize performance. Incremental resources not shown on resource adequacy plans and supply plans will not have must-offer obligations, generated bids, or availability incentives and, therefore, they are less likely to perform when needed. In addition, the increased planning reserve margin will allow the CAISO to use its monthly capacity procurement mechanism (CPM) to backstop for resource adequacy deficiencies arising from the incremental procurement obligations. If the Commission does not increase monthly resource adequacy showing obligations, the CAISO will be unable to use its monthly resource adequacy deficiency

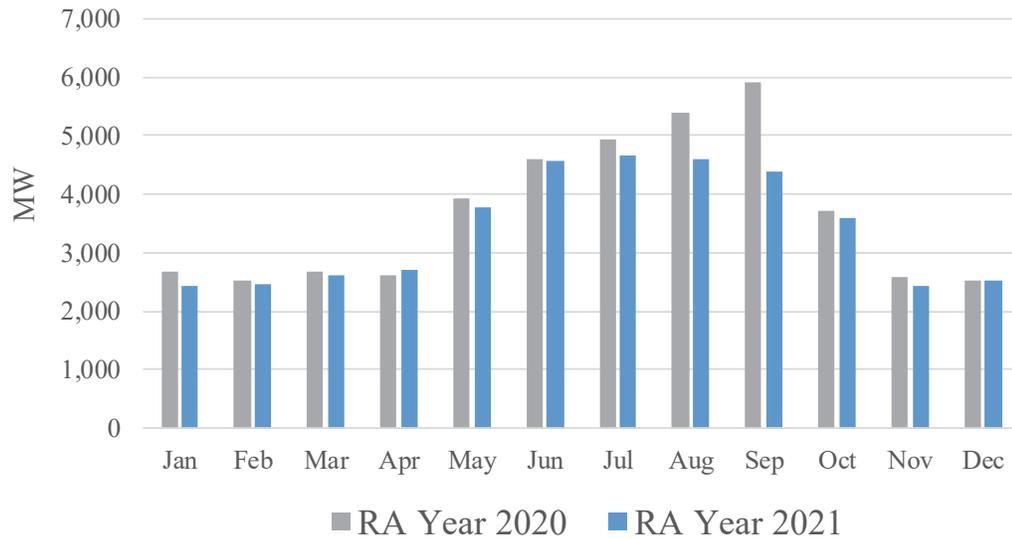
CPM authority to backstop for such deficiencies. To meet summer 2021 resource needs most effectively, the Commission should increase the planning reserve margin and resulting resource adequacy requirements. This will allow the CAISO to use its monthly CPM process to remedy any resource adequacy deficiencies by procuring backstop capacity before the applicable resource adequacy month. Such advance procurement of needed resources maximizes the pool of resources available to address shortfalls, allowing the CAISO to avoid a “last minute scramble” to find needed resources. If the CAISO must wait until the last minute to fulfill these needs, necessary capacity may no longer be available because it will be committed elsewhere, particularly if conditions are tight elsewhere in the west.

B. The Commission Should Authorize Import Procurement As Soon as Possible.

The CAISO strongly urges the Commission to authorize incremental procurement for imports as soon as possible. Because the CAISO is an import dependent system, forward import contracts will play an important role in meeting summer 2021 reliability needs.

The CAISO is increasingly concerned about the trend of import procurement. Figure 1 compares the annual year-ahead showings for resource adequacy imports across the entire CAISO footprint between 2020 and 2021.

Figure 1: Comparison of 2020 and 2021 Year-Ahead Import Showings for CAISO Footprint



It is not entirely clear why year-ahead showings for resource adequacy imports are lower for 2021 than 2020. In particular, for the critical months of August and September the 2021 year-ahead procurement is approximately 800 MW and 1,500 MW lower, respectively. First, year-ahead showings only require 90 percent of the total obligation, so load serving entities may intend to secure additional imports closer to the resource adequacy month. The problem with such an approach is last summer showed the southwestern part of the interconnection was very tight on capacity and during a west-wide heat wave the CAISO system must compete with other net importers for limited supply. The data indicate the CAISO footprint, including Commission-jurisdictional load serving entities, are not securing resource adequacy imports at the same rate that they did last year in the annual process. If load serving entities in the Southwest are securing firm power in advance of this summer, this means there may be fewer imports to contract with closer to the summer months. Available information suggests that resource supplies across the west will be increasingly tight in summer 2021 as resources continue to retire in other balancing authority areas.¹³ The Commission should take action to ensure load

¹³ For example, the Northwest Power and Conservation Council (Council) forecasts reports that the Pacific Northwest region will exceed the 5% loss of load probability (LOLP) standard by 2021, when the LOLP for the region rises to above 6%. That figure is expected to rise to nearly 7% by 2023. The Council attributes the increase in LOLP over time to the retirement of several coal plants in the region. (https://www.nwpp.org/private-media/documents/2019.11.12_NWPP_RA_Assessment_Review_Final_10-23.2019.pdf).

serving entities have regulatory certainty regarding the need to procure resources and cost recovery assurance.

Second, if the Commission does not increase the planning reserve margin, new resource procurement (such as the procurement directed by the Proposed Decision) may simply substitute for import procurement, without producing a net increase in resources. Under these circumstances, the system will continue to fail to meet a 15% planning reserve margin at 8 p.m.

The Commission should direct the procurement of imports as soon as possible, which would ensure that the imports are deliverable based on the maximum import capability and are subject to the CAISO's resource adequacy market rules. The importance of these market rules are recognized by Energy Division staff, which submitted comments into the CAISO's companion summer 2021 stakeholder initiative requesting that RAIM penalties extend into weekends and holidays.¹⁴ To expedite and streamline the process, the Commission should allow the investor-owned utilities (IOUs) to pursue firm imports to count towards a 17.5% planning reserve margin. Though SCE has expressed a concern that IOU action may cannibalize procurement from other load serving entities, IOU action *after* resource adequacy showings will mean there is little time during the cure period to successfully procure more resources. The CAISO agrees where there are large quantities of imports available the maximum import capability may be a limiting factor. However, given the tightening of resource supplies, this might not be the case. If the Commission directs the IOUs to conduct incremental procurement for imports, the IOUs may wish to coordinate with other Commission-jurisdictional load serving entities to understand where additional import capability exists and to guide procurement.

C. The Commission Should Fund the Flex Alert Paid Media Campaign for 2021 and 2022.

The Commission should fund and promote the Flex Alert paid media campaign for 2021 and 2022. The Flex Alert program has historically delivered noticeable and

¹⁴ Energy Division staff comments on Market enhancements for summer 2021 readiness, submitted January 15, 2021. Available at: <https://stakeholdercenter.caiso.com/StakeholderInitiatives/AllComments/7ebc297d-ed25-4055-98c0-4bf41f37c759>

helpful load conservation when exercised during critical and highly stressed system conditions. The CAISO supports continued funding in 2022 and potentially beyond. The Flex Alert program educates consumers regarding the positive impacts of conservation, helps them understand grid conditions, and informs them when conservation is needed. Long-term support and funding can help sustain a trusted brand and effective consumer tool that has proven itself to be essential to maintaining overall grid reliability. An ongoing consumer awareness and participation program that reaches millions of California consumers each year is an essential part of reaching the state's collective clean energy goals.

The CAISO recommends the Commission promote a multi-lingual Flex Alert campaign with paid non-paid media campaign that considers all communications channels, including, but not limited to, television, newspaper, radio, internet, social media, websites, and a mobile application. The campaign should be both educational and a call for action for consumers to actively participate in the program and conserve energy when called upon.

The campaign should start prior to summer and increase consumer understanding on the need to conserve, how to conserve energy effectively, and what to do before, during and after a Flex Alert is called. For example, this may include cooling down living spaces or charging vehicles or electronic equipment before conservation is needed. The campaign should also consider effective communications to large energy users, electric car owners, and smart-home device producers to better help consumers automate conservation measures and increase participation in energy conservation. The Flex Alert program should also utilize existing state emergency communications measures, including text alerts and highway message signage. State agencies—especially those with high levels of population interactions such as the Department of Motor Vehicles—should have educational materials and/or signage to share with consumers.

Lastly, the CAISO will be aligning its Alerts, Warnings, and Emergency (AWE) categories and procedures with NERC terminology by summer 2022. The CAISO does not expect these changes will affect how Flex Alerts are called or used.

D. The Commission Should Adopt an Emergency Load Reduction Program

The CAISO supports adopting an ELRP to provide insurance value during stressed system conditions. The ELRP should not be a resource adequacy eligible program and, as such, would not be paid to be available to the CAISO under a must-offer obligation. The ELRP should be eligible to be called during emergency conditions to supplement the reliability provided by the resource adequacy program when resource adequacy resources are fully dispatched yet still unable to maintain system reliability under normal operating conditions. At most, the ELRP should be exercised simultaneously with resource adequacy resources, but preferably the ELRP should be exercised only after resource adequacy resources have first been called. As the CAISO explained in testimony, procured and paid for resource adequacy capacity should be used prior to exercising an insurance product like the ELRP.¹⁵

E. This Proceeding Is An Inappropriate Venue to Consider CAISO Market Reforms.

Separate from this proceeding, the CAISO has engaged its stakeholders in a summer 2021 readiness initiative to address market issues identified as part of joint Commission-CEC-CAISO Root Cause Analysis. Several parties suggest the Commission should focus on CAISO market concerns in this proceeding, rather than securing additional capacity to meet summer 2021 reliability needs. In particular, parties suggest changes to the CAISO's residual unit commitment (RUC) and export processes will obviate the need for any additional resources. These parties ignore the Final Root Cause Analysis jointly prepared by the CAISO, the Commission, and the CEC identified three major causal factors contributing to the August outages—extreme weather conditions, resource adequacy and planning processes, and market practices.¹⁶

The Final Root Cause Analysis summarized these causal factors as follows:

1. The climate change-induced extreme heat wave across the western United States resulted in demand for electricity exceeding existing electricity resource adequacy (RA) and planning targets.
2. In transitioning to a reliable, clean, and affordable resource mix, resource planning targets have not kept pace to ensure sufficient resources that can be

¹⁵ Opening Testimony of Dr. Karl Meeusen on Behalf of the CAISO, pp. 11:25-12:3.

¹⁶ Reply Testimony of Samuel Golding on Behalf of UCAN, Attachment SG-1, p. 1.

relied upon to meet demand in the early evening hours. This made balancing demand and supply more challenging during the extreme heat wave.
3. Some practices in the day-ahead energy market exacerbated the supply challenges under highly stressed conditions.¹⁷

Similarly, the CAISO Department of Market Monitoring (DMM) report for August and September concluded that the August 14-15 “load outages resulted from the combined effect of a series of factors” and the “most significant and actionable of these factors involve California’s resource adequacy program.” To address this issue, the DMM recommended as follows:

To limit the potential for similar conditions in future years, system level resource adequacy requirements should be modified to ensure more capacity is available during net load peak hours. In addition, capacity counting rules for different resource types should be modified to more accurately reflect the actual availability of these resources during the net load peak hours.

Though the RUC and export processes played some role in the August outages, it is inaccurate to claim these processes were the primary cause of the load shedding. In particular, the assertion the CAISO could have curtailed exports during the August 2020 heatwave to increase supply by 4,500 MW is misleading.¹⁸ The Final Root Cause Analysis explained how the CAISO’s real-time market and operations helped significantly reduce the combined effects of load under-scheduling, convergence bidding and the RUC issue:

The CAISO relied on the real-time market and operations to attract more imports including market transactions, voluntary transfers from the Energy Imbalance Market (EIM), and emergency transfers from other BAs...In total, real-time imports increased by 3,000 MW and 2,000 MW on August 14 and 15, respectively, when the CAISO declared a Stage 3...Though fewer exports may have been scheduled in the day-ahead market had the these market issues not existed, it is possible that the export reductions to other balancing authority areas would have resulted in reduced imports and assistance in the real-time. Therefore, it is unknown whether the export reductions would have prevented load shedding.¹⁹

The CAISO made changes to the RUC process in September 2020 and is currently addressing export and load prioritization in its summer 2021 readiness

¹⁷ *Id.*

¹⁸ Opening Testimony of Bill Powers on Behalf of Protect Our Communities Foundation, p. 5.

¹⁹ Reply Testimony of Samuel Golding on Behalf of UCAN, Attachment SG-1, pp. 63-64.

initiative. These changes will help ensure procured resources serve California demand, but they will not fully address the fundamental need for additional resource capacity during critical demand periods. This proceeding is appropriately focused on addressing the resource adequacy and capacity issues identified in the Final Root Cause Analysis and the DMM report.

III. Conclusion

The CAISO appreciates this opportunity to work with the Commission and parties to secure the incremental resources and demand reduction to maintain summer 2021 reliability.

Respectfully submitted

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