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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

In the Matter of: Energy System Reliability DOCKET NO. 21-ESR-01 RE: Assembly Bill 209 Planning Reserve Margin Workshop

CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON THE NOVEMBER 16, 2023 ASSEMBLY BILL 209 PUBLICLY OWNED UTILITY PLANNING RESERVE MARGIN WORKSHOP

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The California Community Choice Association¹ (CalCCA) submits these comments in response to the *Assembly Bill 209 Publicly Owned Utility Planning Reserve Margin Workshop*, held on November 16, 2023.

I. INTRODUCTION

The California Community Choice Association (CalCCA) appreciates the opportunity to

comment on the California Energy Commission's (Commission) Assembly Bill 209² Publicly

Owned Utility (POU) Planning Reserve Margin (PRM) Workshop (Workshop). The PRM is an

important planning construct necessary to support the reliable operation of the California

Independent System Operator (CAISO) Balancing Authority Area (BAA) by ensuring load-

¹ California Community Choice Association represents the interests of 24 community choice electricity providers in California: Apple Valley Choice Energy, Ava Community Energy, Central Coast Community Energy, Clean Energy Alliance, Clean Power Alliance, CleanPowerSF, Desert Community Energy, Energy For Palmdale's Independent Choice, Lancaster Energy, Marin Clean Energy, Orange County Power Authority, Peninsula Clean Energy, Pico Rivera Innovative Municipal Energy, Pioneer Community Energy, Pomona Choice Energy, Rancho Mirage Energy Authority, Redwood Coast Energy Authority, San Diego Community Power, San Jacinto Power, San José Clean Energy, Santa Barbara Clean Energy, Silicon Valley Clean Energy, Sonoma Clean Power, and Valley Clean Energy.

² Assembly Bill 209, Stats. 2022, Ch. 251 (Sept. 6, 2022): https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB209.

serving entities (LSE) procure enough resource adequacy capacity (RA) to serve load in all but the most extreme conditions.

Presentations by the Northern California Power Authority (NCPA) and the Six Cities demonstrate the current RA capacity supply and demand conditions have made it challenging for POUs to conduct procurement and cost-effectively meet their RA obligations. In these comments, CalCCA supports various findings by the POUs related to RA capacity procurement challenges and resulting high prices. CalCCA also makes a recommendation on how to set the PRM in light of current RA market conditions. In summary:

- The RA supply and demand balance makes it difficult, if not impossible, for every California LSE to meet its RA requirements;
- Tight supply conditions have resulted in unprecedentedly high prices; and
- PRMs should be set to meet a 0.1 LOLE standard and if the available RA supply will not meet the standard, LSEs should not be penalized while they procure new capacity to bolster the supply stack.

II. THE RA SUPPLY AND DEMAND BALANCE MAKES IT DIFFICULT, IF NOT IMPOSSIBLE, FOR EVERY CALIFORNIA LSE TO MEET ITS RA REQUIREMENTS

The Workshop illuminated key challenges faced by the POUs impacting their ability to

procure RA in a cost-effective manner for their customers. These challenges include:

- Challenges constructing and interconnecting new resources;
- Limited transmission plan deliverability and maximum import capability necessary for resources to count towards RA requirements;
- Continuing supply chain problems impacting the progression of new resource development;
- Near-term supply shortages and retirements;
- Increased competition for capacity across the western region; and

• Dramatically increased RA prices.³

The POUs are not alone in this experience. CalCCA's RA whitepaper, California's

Constrained Resource Adequacy Market: Ratepayers Left Standing in a Game of Musical

Chairs,⁴ documents a similar experience faced by California Public Utilities Commission (CPUC) jurisdictional LSEs. In the RA whitepaper, CalCCA's stack analysis of available supply and forecasted demand has found the RA supply available within the CAISO BAA for 2023 through 2026 appears, on a forecast basis, inadequate to meet the RA program compliance requirements.

	September NQC	2023	2024	2025	2026
1	CAISO 1-in-2 Load	46,829	47,475	47,987	48,487
2	Reserve Margin (16% in '23, 17% after)	7,493	8,071	8,158	8,243
3	Total RA Demand	54,322	55,546	56,145	56,730
4	NQC List	49,526	46,171	46,171	46,171
5	Event-Based Demand Response	1,090	980	955	978
6	Imports	6,000	6,000	6,000	6,000
7	Estimate of Contracted Resources	-	7,366	9,806	10,126
8	Thermal Derates from 2023 NQC List	(718)	(723)	(723)	(723)
9	Remove Diablo from Planning	-	-	(2,280)	(2,280)
10	OTC, Retired or Contracted by DWR	-	(2,859)	(2,859)	(2,859)
11	Excess IOU Procurement for Higher Effective PRM	(443)	(1,700)	(1,700)	-
12	Retention for Substitution	(619)	(619)	(619)	(619)
13	Total RA Supply	54,836	54,615	54,750	56,793
14	Surplus Supply (Deficit) [Assuming Loss of Diablo]	514	(930)	(1,394)	64

Figure 1

A wide range of factors, many overlapping with those flagged by the POUs, have

contributed to the current circumstances in which there is insufficient RA supply to meet the RA

program compliance requirements. These factors include:

- Weather conditions are more extreme, making load more volatile and impacting generation output (e.g., reducing generation due to high ambient temperatures).
- Hydro resource availability has declined under drought conditions.

³ NCPA Presentation at 6, and the Six Cities Presentation at 6 and 7.

⁴ Previous version of whitepaper is here: <u>https://cal-cca.org/wp-content/uploads/2023/09/CalCCA-Stack-Analysis-2023-2026-updated-9_15_23.pdf</u>. Figures and numbers in these comments include more recent updates that will be included in future revisions to the whitepaper.

- New resources are delayed due to permitting, interconnection, and supply chain challenges.
- The entire Western region is constrained, reducing the availability of imports to California⁵ and risking increased exports of California resources to meet other Western region requirements (e.g., Western Resource Adequacy Program (WRAP)).
- The Commission's reduction in effective load carrying capacity values reduced reliance on wind and solar resources to meet RA requirements.
- The Commission's increase in planning reserve margins (PRM) to 16 percent and then 17 percent, with a 20-22.5 percent "effective" PRM for investor-owned utilities (IOU), increased RA requirements.
- The lack of transparency into IOU effective PRM procurement and California Department of Water Resources (CDWR) procurement obscures whether those resources could have provided RA to an LSE with a compliance obligation or simply cannibalized the existing RA resource stack, reducing supply for LSEs.
- Unnecessarily restrictive requirements for energy imports under the Commission's RA program reduced the availability of imports to the Commission-jurisdictional RA market.

The RA supply deficiency can be anticipated to prevent collective compliance by CAISO LSEs

despite their best efforts to procure and willingness to pay exorbitant prices.

III. TIGHT SUPPLY CONDITIONS HAVE RESULTED IN UNPRECEDENTEDLY HIGH PRICES

The shortage of RA has capacity prices at all-time highs, making reliably serving

California's electricity customers more expensive. Data presented by the Six Cities shows

average annual system RA prices tripled between 2019 and 2023 from roughly \$5 per kilowatt

(kW) -month to roughly \$15 per kW-month. Average annual system RA prices continued to rise

in 2024 to roughly \$25 per kW-month.⁶

⁵ Historical RA import data from the CAISO demonstrates that the amount of imports in yearahead RA showings declined from 5,900 MW in 2020 to 3,600 MW in 2022. RA imports from unspecified declined from 4,300 MW to 1,300 MW over the same period. Historical year-ahead RA data: <u>http://www.caiso.com/Documents/HistoricalYearAheadResourceAdequacyAggregateData.xlsx</u>.

⁶ Six Cities Presentation at 5.

Public data from the CPUC and the Federal Energy Regulatory Commission (FERC) Electronic Quarterly Reports (EQR) demonstrate similar dramatic price increases over the last several years. Between September 2019 and September 2021, the net RA supply decreased by six gigawatts⁷ while the weighted average price for September RA increased by over 100 percent from \$4.08/kW-month to \$8.62/kW-month, as shown in Figure 2.⁸ CalCCA analysis of public capacity transaction data in the FERC Electronic Quarterly Reports (EQR) shows that the weighted-average price for capacity delivered to the CAISO system continued to rise to over \$13/kW-month in 2023.





Importantly, detailed transaction-level data from the FERC EQRs shows that the rise in

average capacity prices is primarily driven by a growing share of transactions at extremely high

⁷ CalCCA estimated the net RA supply in September for 2019-2022 using assumptions similar to the 2023 RA Stack in Figure 1. Key differences include the use of a 15 percent PRM, load forecasts from the CEC 2019 and CEC 2021, NQC lists from the relevant year, event-based demand response from the relevant year, historical import RA from the relevant year, and no excess IOU procurement for higher effective PRM.

⁸ 2021 Resource Adequacy Report (Apr. 2023), at 29: <u>https://publicadvocatesproda.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/2021_ra_report_040523.pdf</u>.

prices, as shown in Figure 3. In September 2020, a time with excess RA supply, around 2,800 megawatts (MW) of RA capacity was purchased by California LSEs at prices above \$7.34/kW-month,⁹ the CAISO's recently proposed soft-offer cap for the capacity procurement mechanism (CPM).¹⁰ In contrast, more than 7,800 MW, 10,600 MW, and 11,700 MW were purchased at prices above \$7.34/kW-month in September 2021, 2022, and 2023 respectively, times with an RA deficit or extremely tight market.¹¹ The highest observed prices rose from \$17/kW-month in September 2020 to over \$60/kW-month in September 2021, 2022, and 2023.¹²

Figure 3



LSEs faced with a responsibility to meet their RA obligation at any cost are being met with generators only willing to sell at prices eight to nine times higher than the CAISO soft-offer cap. The lack of sufficient capacity available to meet RA needs is clearly driving up costs for

⁹ CalCCA analysis of capacity transactions in FERC Electronic Quarterly Reports: <u>https://eqrreportviewer.ferc.gov/</u>.

¹⁰ June 30, 2023 straw proposal for CAISO soft offer cap: <u>http://www.caiso.com/InitiativeDocuments/StrawProposalCapacityProcurementMechanismEnhancements</u> <u>Track2.pdf</u>.

¹¹ CalCCA analysis of capacity transactions in FERC Electronic Quarterly Reports: <u>https://eqrreportviewer.ferc.gov/</u>.

 I^{12} Id.

California electricity customers. These high costs erode affordability, disproportionately affect disadvantaged customers, and could undermine the State's efforts to promote electrification.

IV. PRMS SHOULD BE SET TO MEET A 0.1 LOLE STANDARD AND IF THE AVAILABLE RA SUPPLY WILL NOT MEET THE STANDARD, LSES SHOULD NOT BE PENALIZED WHILE THEY PROCURE NEW CAPACITY TO BOLSTER THE SUPPLY STACK

The supply and demand imbalance and resulting price impacts described in Sections II and III above can only be resolved by bringing new RA resources online. LSEs and resource developers are in the process of doing this through LSEs' long-term planning and procurement processes. It will take time, however, for this procurement to come online and cover the RA need with sufficient excess, as the industry is still facing supply chain challenges, interconnection delays, and permitting issues.

When existing RA capacity on the system is insufficient to meet the state's requirements, setting the PRM beyond what can reasonably be achieved increases demand without a subsequent increase in supply. This results in upward price pressure on capacity costs ultimately borne by customers without incremental reliability benefit. To mitigate this outcome, the Commission should take the following steps.

First, the Commission should conduct an LOLE study to determine the PRM that meets a 0.1 LOLE standard and adopt this PRM for RA requirement setting. This will ensure requirements are set consistent with robust planning and modeling that ensures reliability to the widely accepted planning standard. The level of the PRM should be set to one that meets the LOLE standard and that is consistent among all LSEs in the CAISO BAA (including POUs and CPUC jurisdictional LSEs). System reliability is a collective asset—all LSEs are potentially negatively affected when generation is insufficient to meet demand anywhere in the system—as such, establishing a LOLE for the CAISO system requires simultaneous consideration of all

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generators and all demand.¹³ A consistent PRM across LSEs ensures that each is contributing its fair share to this collective. ¹⁴

Recognizing that this level may not be immediately feasible to achieve, however, those local regulatory authorities that have the authority to levy penalties against LSEs that do not meet their PRMs should exercise appropriate judgment recognizing immediate infeasibility. This approach would ensure LSEs are not penalized for RA deficiencies outside of their control during the time when RA supply is insufficient and when the state is in the process of bolstering the RA supply stack to levels that ensure a competitive RA market. While this new resource procurement is in progress, this approach would mitigate upward price pressure created by the lack of RA supply, as new capacity comes online through LSEs' long-term planning and procurement processes to resolve the capacity shortfall.

V. CONCLUSION

CalCCA looks forward to further collaboration on this topic.

Respectfully submitted,

Koelyn Take

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November 30, 2023

¹³ An alternative approach of only using an individual LSE's demand and generators (contracted or owned) to meet a 0.1 LOLE standard would likely lead to a far higher PRM for each LSE. A small number of discrete generators contribute much less to reliability than these same generators would as part of a pool of a large number of generators, as illustrated in the CEC's workshop presentation (slide 28).

¹⁴ Unique load characteristics of individual LSEs can be recognized by using each LSE's demand during the system peak (coincident peak demand) to set the PRM, rather than using its non-coincident peak demand.