STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

IN THE MATTER OF: *2024 Integrated Energy Policy Report Update (2024 IEPR Update)*	DOCKET NO. 24-IEPR-03 RE: Draft Electricity Demand Forecast Results

CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON THE IEPR COMMISSIONER WORKSHOP ON DRAFT FORECAST RESULTS

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The California Community Choice Association[1] (CalCCA) submits these comments pursuant to the *Notice of IEPR Commissioner Workshop on Draft Forecast Results*, dated November 22, 2024. During the *IEPR Commissioner Workshop on Draft Forecast Results* (the Workshop), held on Thursday, December 12, 2024, California Energy Commission (Commission) staff provided an overview of draft annual and hourly electricity demand forecast results. Additional presentations included: (1) summaries of the 2024 IEPR forecast updates; (2) a draft annual consumption, sales, and managed sales results; (3) updates and draft results for the hourly and peak electricity demand forecast for the Planning Forecast and Local Reliability Scenario; and (4) the 1-in-X year peak electricity demand results.

I. INTRODUCTION

Load forecasting is critically important to identifying California's electric grid needs. Rising costs of new resources, transmission, and distribution to interconnect loads and resources

[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 of Southern California, 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.

have reduced prior excess capacity and resulted in a significant amount of 'just-in-time' build. That build results from a variety of processes impacting the addition of new generating and storage technology (primarily through the Integrated Resource Plan (IRP) process), transmission build (primarily through the California Independent System Operator Corporation (CAISO) Transmission Planning Process (TPP) driven by the IRP), and utility distribution planning processes. The need for each of these is driven by customer demand for electricity, determined through the IEPR demand forecast process. In addition, load-serving entity (LSE) obligations under California's Resource Adequacy (RA) program are driven by the IEPR demand forecast.

While all of these programs are foundational components of California's electric supply system, each functions on different time horizons which dictate their utilization of the IEPR demand forecast. The IRPs, as well as transmission and distribution planning, focus on long-term requirements. The RA program focuses on immediate grid reliability needs to ensure resources are under contract to LSEs and made available to the CAISO market to serve customer energy needs. As a result, program sensitivity to year-to-year changes in the demand forecast varies dramatically. The immediate need for RA requires near-term demand forecast accuracy to ensure reliability, and year-to-year stability to temper market shocks and potentially escalating prices that can result from unanticipated load forecast increases. In addition, unanticipated load forecast reductions can contribute to unintended early retirement of resources. On the other hand, the use of longer-term demand forecasting for new resource and grid build results in less sensitivity to year-to-year changes, but still requires accurate long-term forecast and sensitivity analysis.

As a result of the differing uses of the demand forecast by the current RA reliability structure and future resource and grid build needs, CalCCA recommends that the Commission:

- Supplant or supplement its bottom-up forecast development for long-term needs with historical top-down load information in the near-term to ensure load forecast stability for resource adequacy obligations; and

- Document the work of the Demand Analysis Working Group (DAWG) to ensure all LSEs benefit from decisions or discussions regarding certain programs and how they impact the demand forecast.

II. THE COMMISSION SHOULD SUPPLANT OR SUPPLEMENT ITS BOTTOM-UP FORECAST DEVELOPMENT FOR LONG-TERM NEEDS WITH HISTORICAL TOP-DOWN LOAD INFORMATION IN THE NEAR-TERM TO ENSURE LOAD FORECAST STABILITY FOR RA OBLIGATIONS

Given near-term impacts on RA obligations, the RA market, and resource availability from recent volatility in year-to-year demand forecasts, the Commission should supplant its "bottom-up" forecast development methodology with "top-down" historical load information to prevent the unintended consequences of such volatility. Commission staff presentations demonstrate the substantial efforts to accurately forecast energy demand through a detailed and intricate bottom-up approach. This approach takes many inputs and sews them together to arrive at the forecast for demand over the IEPR period. These inputs result from considerations regarding energy, behind-the-meter (BTM) resources, additional achievable fuel substitution, transportation electrification, and data center loads. While this detailed approach is necessary to ensure accuracy, it has proven to be subject to near-term, year-to-year volatility. As described below, it negatively and potentially inaccurately impacts LSE RA obligations, the RA market, and near-term resource availability. This bottom-up approach should be supplemented with "top-down" information such as the amount of load served by each Balancing Authority (BA) in California. The top-down analysis could include simple drivers like weather and the state of the economy, to result in a more stable near-term demand forecast.

A. Substantial and Unexpected Near-Term Increases in the IEPR Demand Forecast Creates Volatility, Scarcity, and Likely High Prices in the RA Market

Volatility in the near-term IEPR load forecast used for RA purposes has become significantly greater in recent years, as stated in CalCCA's comments on the October 2, 2024, Workshop on Forecast Use in Electricity System Planning,[2] and as shown below in Table 1. Table 1 shows the difference in the peak load forecast from the IEPR that were used in establishing the CPUC's RA requirements.

Table 1 – Forecast RA Needs 2018-2025 year-to-year changes

	Year over Year change in Forecast (MW)							
	2018	2019	2020	2021	2022	2023	2024	2025
1-in-2 RA Forecast	(636)	(223)	(314)	70	264	1,279	749	(1,192)

In 2023 and 2024, the forecast RA needs jump up significantly by 1,279 megawatts (MW) and then another 749 MW, followed by a dramatic decrease of 1,192 MW in 2025. During 2023 and 2024, the fleet of resources available to meet RA needs is very constrained, allowing the fleet to, at best, marginally meet the RA requirements. This substantial increase in RA needs during that period made resources more scarce and therefore likely more costly for customers. In addition, the ability to fully build new resources in the near-time timeframe of one to two years is simply not possible, especially to meet the needs of the increase depicted in Table 1.

B. Substantial and Unexpected Near-Term Decreases in the IEPR Demand Forecast May Contribute to Retirements of Resources Needed in Later Years

While substantial and unexpected near-term increases in the demand forecast can create volatility in RA markets and higher prices for customers, equally troubling are large decreases in need as shown in 2025. While the reduction in demand is certainly helpful in easing scarcity

[2] 24-IEPR-03, *California Community Choice Association's Comments on the Forecast in Electricity System Planning Workshop* (Oct. 16, 2024).

conditions, it has other undesirable impacts including the potential early retirement of resources. Sufficient capital and therefore incentive for the continued operation of a resource is provided by a combination of energy market revenues and contracts for capacity to meet RA. In most cases, having only one of those two funding resources will be insufficient to continue viable operation. When an unexpected near-term reduction in demand forecast occurs and LSE RA requirements therefore drop, some RA resources may not receive RA capacity contracts. The lack of contracts will in some cases cause that resource to retire. Subsequently, if the load forecast in future year increases and the build of new resources has not been sufficient to replace the retired resource, an insufficient set of resources will be available to meet RA needs in that subsequent year.

C. The Commission Should Incorporate a Top-Down Forecast into its Bottom-Up IEPR Forecast Analysis to Reduce Near-Term Year-Over-Year Volatility

To address the volatility resulting from either year-over-year significant increases or decreases in the demand forecast, the Commission should use a top-down forecast to either supplant or inform the bottom-up methodology for the near-term to temper the swings in the forecast and ensure stability in the RA obligations. The top-down approach will accomplish two important tasks. *First*, it will ensure high level forecasting is incorporated, such as the amount of load served by each BA in California, and basic drivers of energy need like weather and the state of the economy. *Second*, it can also ensure either new or potentially inaccurate inputs do not unnecessarily create volatility in the forecast. For example, the Commission staff presentation on BTM resources revealed that forecast of output from these resources has been overly optimistic.[3] The several thousand MW change in this BTM forecast will have a significant impact on demand given this dramatic reduction in staff's overall forecast.[4]

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[3] *See* 24-IEPR-03, Presentation by Alex Lonsdale, *Hourly Behind-the-Meter Distributed Generation Forecast Results* (Nov. 6, 2024), slide 12.

[4] *Ibid.*

It should be noted that the current bottom-up approach remains appropriate for long-term forecasting, while supplanting the bottom-up approach with top-down information can result in a more meaningful and consistent approach to ensuring that resources are retained to meet immediate reliability needs. In the long-term timeframe, the bottom-up approach is very helpful as it appropriately reflects new trends not adequately addressed by a historically based top-down approach. For example, large changes in load due to data center deployment or recent developments such as the increasing scale of electric transportation are difficult to predict with a top-down analysis that use historical data to predict the future.

CalCCA recommends that the Commission: (1) incorporate historical top-down information into the near-term demand forecast to reduce volatility negatively impacting RA obligations; and (2) retain the bottom-up approach to forecast demand over the long term to ensure construction of adequate resources to meet demand.

III. THE DAWG OUTPUTS SHOULD BE DOCUMENTED TO ALLOW ALL LSES TO BENEFIT FROM DECISIONS OR DISCUSSIONS REGARDING THE TREATMENT OF CERTAIN PROGRAMS IN THE DEMAND FORECAST

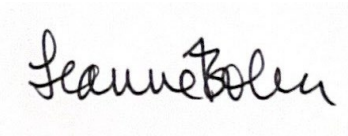
CalCCA appreciates the work of the DAWG, which allows the opportunity for LSEs to discuss with Commission staff inputs to demand forecasting. This work should continue as it provides Commission staff insight into new and unique LSE programs and how those programs may impact the demand forecast and allows staff to explain in detail its forecasting methodologies. Given not all LSEs have sufficient staff to attend the DAWG meetings or create their own library of information that has been examined, CalCCA requests that the Commission maintain documentation of discussions at the DAWG meetings to inform potential future adjustments to load forecasts. This documentation should be updated with each IEPR cycle reflecting the current approach to each forecast component. By doing so, the document will maintain in one location the history of practices used to establish load forecasts including the

rationale behind such changes. In addition, LSEs can benefit from documentation and knowledge regarding how specific programs, in comparison to their own existing or future programs, are treated in the demand forecast.

IV. CONCLUSION

For all the foregoing reasons, CalCCA respectfully requests consideration of the comments herein and looks forward to an ongoing dialogue with the Commission.

Respectfully submitted,



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