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: Forecast in Electricity System Planning Workshop of Wednesday, October 2, 2024

CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON THE FORECAST IN ELECTRICITY SYSTEM PLANNING WORKSHOP

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The California Community Choice Association[1] (CalCCA) submits these Comments pursuant to the *Notice of IEPR Commissioner Workshop on Forecast Use in Electricity System Planning*, held on Wednesday, October 2, 2024.[2]

I. INTRODUCTION

CalCCA appreciates the opportunity to provide comments on the IEPR Commissioner Workshop on Forecast Use in Electricity System Planning (the Workshop). The Workshop explored how the California Energy Commission's (Commission's) Integrated Energy Policy Report (IEPR) demand forecast is used for planning by various entities, including the California Public Utilities Commission (CPUC) and California Independent System Operator (CAISO), Investor-Owned Utilities (IOU), and other Load Serving Entities (LSE) including community choice aggregators (CCAs). The Workshop highlighted significant challenges the Commission

[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.

[2] *Notice of IEPR Commissioner Workshop on Forecast Use in Electricity System Planning*, 24-IEPR-03 (Sept. 18, 2024).

faces in producing an accurate and reliable demand forecast given increased building and transportation electrification, climate change and increased weather variability, and limited visibility into behind the meter (BTM) distributed energy resource (DER) operations.

These challenges have contributed to significant volatility in the demand forecast between IEPR demand forecast cycles, with impacts to LSEs including the exposure to greater financial risk from under- or over-procurement of Resource Adequacy (RA). Differences in assumptions and inputs between the IEPR demand forecast and LSE forecasts have also created challenges in meeting RA obligations. To lessen volatility between IEPR cycles and better align IEPR and LSE forecasts, CalCCA recommends that the Commission:

- Adopt a process to address potentially impactful volatility between IEPR demand forecast cycles through which the Commission engages with stakeholders to investigate potential inaccuracies in the assumptions when the change in the forecast falls outside of an established metric;
- Continue to engage with all LSEs to discuss accuracy of inputs and attempt to minimize the differences between the IEPR and individual LSE demand forecasts; and
- Share the draft forecast model, assumptions, and results for LSEs to review and provide feedback before the IEPR demand forecast is adopted.

II. A PROCESS SHOULD BE ADOPTED TO ADDRESS IMPACTFUL VOLATILITY BETWEEN IEPR DEMAND FORECAST CYCLES

A process should be adopted to create smooth transitions and reduce unnecessary volatility between IEPR demand forecast cycles, and the resulting negative impacts to programs and LSE obligations dependent on the forecast. In the past, forecasting demand was relatively predictable and did not result in dramatic swings from year-to-year or between IEPR cycles. Factors including the rapid electrification of the building and transportation sectors, climate change and increased weather variability, and lack of visibility into BTM DERs have introduced significant unpredictability into forecasting electric loads. The resulting volatility impacts

programs and LSEs' obligations dependent on the demand forecast, including the CPUC's RA program. As a result, the Commission should adopt a process to smooth the transitions between each two-year IEPR demand forecast cycle.

Under the current practice, the Commission adopts a new demand forecast each two-year IEPR cycle. The IEPR demand forecast adopted in the first year of the cycle is the basis for the CPUC's determination of RA procurement obligations for each LSE. The IEPR demand forecast is adjusted in an IEPR Update in the second year of the IEPR cycle, which becomes the new basis for determining RA obligations in that second year. Since the IEPR Update uses the same assumptions (updated with current information) as the IEPR demand forecast for that two-year IEPR cycle, there is typically minimal volatility in the demand forecast during the two-year cycle. However, when a new IEPR forecast cycle begins the following year, new assumptions are used that can cause dramatic swings from the prior forecast. Depending on the assumptions used, the demand forecast and resulting LSE RA obligations can be either significantly higher or lower from previous years. For example, as demonstrated in Table 1 below, the RA forecast was very stable in 2019 through 2022, but then experienced significant volatility in 2023 through 2025. [3]

Table 1

	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)

For LSEs, the difficulty in predicting year-to-year changes in demand significantly impacts the ability to procure sufficient capacity to meet reliability needs under the CPUC's RA program. This volatility exposes LSEs to significant financial risk from either under- or over-

[3] California Energy Demand Forecast vintages from the 2016 IEPR through the 2023 IEPR.

procurement of RA and can impact potential retirements of the fleet of available resources needed to ensure reliability over the long term.[4]

To address this volatility, the Commission should adopt a process to review variations in IEPR demand forecast cycles. The Commission should consider adopting a metric for an acceptable level of variance between the IEPR forecast cycles. Any variance that exceeds a set percentage can trigger further discussions between the Commission and stakeholders. After such discussions, the Commission can determine if modifications to the assumptions are necessary to decrease unnecessary volatility and avoid costly under- or over-procurement.

III. THE COMMISSION SHOULD CONTINUE TO ENGAGE WITH ALL LSES TO DISCUSS ACCURACY OF INPUTS AND ATTEMPT TO MINIMIZE THE DIFFERENCES BETWEEN THE IEPR AND INDIVIDUAL LSE DEMAND FORECASTS

The Commission should continue to engage with LSEs early in the process to discuss the accuracy of inputs and attempt to minimize the LSE and IEPR forecast differences. Particularly under the new RA slice-of-day (SOD) methodology, the Commission's demand forecasts have created significant procurement challenges. Prior to 2025, the RA program was based on the peak demand forecast. Even this process involved considerable complexity as the Commission had to ensure the sum of the LSE-based demand forecasts was equal to the forecast for the system. This adjustment process can result in a forecast for which the Commission and LSE are not in mutual agreement.

In 2025, the CPUC moves to the SOD RA model. LSEs under CPUC jurisdiction are obligated to demonstrate sufficient capacity to meet all 24 individual hours of the forecast "worst

[4] In the case of a forecast for lower peak load conditions, an LSE may procure fewer resources. A resource not procured under an RA contract may be found no longer profitable and may retire. If the low demand forecast is artificial and subsequent demand forecasts return to a higher level, the retired resource may be needed for reliability but is unavailable. Without time to build new resources to replace the retired resource, system reliability can be placed in jeopardy.

day" of the month. While it was difficult to agree upon forecasts for 12 values (one for each month), it will be increasingly difficult to agree on 288 values (24 for each month). Ensuring reliability and cost-effectiveness will place significant pressure on the accuracy and predictability of the Commission demand forecast process.

As Ava Community Energy (Ava) highlighted in its presentation at the Workshop, differences between its demand forecast and the Commission's final demand forecast can have significant financial consequences. Ava stated the difference between its 2024 RA forecast and the IEPR demand forecast exceeded 100 megawatts (MW) in three months, exposing Ava to as much as $36 million for under-procurement and $3.6 million for over-procurement in high scarcity markets.[5] For the 2025 SOD forecast, Ava identified 70 month-hour slices where the difference between their forecast and the IEPR demand forecast exceeded 100 MW, and 13 month-hour slices where the deviation was greater than 200 MW.[6] This type of variance exposes LSEs to considerable financial risks, likely without a reliability benefit to the grid.

The Commission should share its demand forecast inputs, assumptions, and model results early in the process for LSE comparison. Crucial for accurate forecasting are assumptions about load modification programs such as DER programs, demand response programs, or rates resulting in load shifting. LSEs see tremendous potential for these programs, including electric vehicle charging programs, to shift peak demands. As Ava highlighted in its presentation, the Commission "should provide guidance on the assumptions already accounted for, and what should be submitted as an incremental load modifier."[7]

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5 Ava Community Energy Workshop Presentation – *LSE Use Cases and Challenges with the RA Load Forecast* (Oct. 2, 2024), slide 5.

6 *Id.,* slide 6.

7 *Id.,* slide 9.

The Commission should continue to engage with LSEs early in the process, to compare and potentially revise demand forecast assumptions and results to improve forecast accuracy. Where consequential differences between Commission and LSE forecasts exist, discussions between the Commission and the LSE should occur to understand and align assumptions. The Commission should consider adopting a metric for an acceptable level of variance between an LSE's forecast and the Commission's forecast. Any variance that exceeds a set percentage should trigger further discussions between the Commission and the LSE. The Commission can also use the information gleaned from the discussions with the LSE to evaluate the overall demand forecast.

IV. THE COMMISSION'S DEMAND FORECAST MODEL, ASSUMPTIONS, AND RESULTS SHOULD BE PROVIDED TO LSES TO REVIEW AND PROVIDE FEEDBACK BEFORE THE IEPR FORECAST IS ADOPTED

Smoothing the year-to-year demand forecast and early engagement with LSEs to align inputs and assumptions will help reduce volatility and improve forecast accuracy. However, the Commission should also consider engaging with LSEs and other stakeholders after the draft forecast has been completed. Even with early engagement with LSEs, differences in modeling and inputs can still result in disparity between LSEs' forecasts and the final IEPR forecast.

The Commission should make its model available to stakeholders for review once the draft forecast is complete. This review should include all inputs, assumptions, and results[8] to allow LSEs and other stakeholders to examine and compare to their own forecasts. Current practices provide high-level summaries of forecast assumptions or results for portions of the

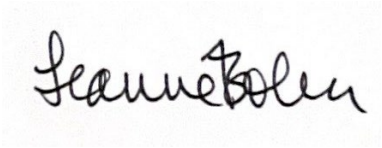
[8] "Results" includes not only the forecast load values but also statistics on the model itself. For example, if using regression analysis, this would include overall significance of the model, statistical significance of each included variable, how much of the variation in load is explained by variation in the input variables, and how much autocorrelation of the data is potentially influencing the results. To the extent that certain inputs may contain confidential or proprietary information, the Commission could substitute generic assumptions based on public sources.

demand forecast in the form of PowerPoint presentations. Because of the growing importance of hourly profiles for the SOD RA framework, LSEs and other stakeholders should have the opportunity to review the detailed hourly profiles and models used to produce the profiles in draft form. The Commission should then host a workshop to allow LSEs to discuss their findings or concerns with Commission staff and propose modifications to the forecast inputs. Commission staff should make final adjustments based on these discussions with stakeholders before presenting the final IEPR forecast for adoption.

V. 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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