

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Modernize
the Electric Grid for a High Distributed
Energy Resources Future

Rulemaking 21-06-017
(Filed June 24, 2021)

**INFORMAL COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

I. Introduction

The California Independent System Operator Corporation (CAISO) provides comments on the December 7, 2021 *CPUC Electrification Impacts and Study Workshop* (Workshop) conducted by the California Public Utilities Commission's (Commission) Energy Division. The CAISO's comments focus on the importance of coordination among the Commission, the California Energy Commission (CEC), California Air Resources Board (CARB), and the CAISO as the Commission considers changes to processes that affect distribution planning. The CAISO also provides comments on the *Draft Research Plan for the Electrification Impacts Study* presented by Energy Division's consultant, Kevala.

II. Discussion

A. It is important the Commission coordinate with the California Energy Commission (CEC) California Air Resources Board (CARB), and the CAISO in evaluating demand forecasts used in resource planning processes.

A process alignment effort among the Commission, CEC, CARB, and CAISO staff currently exists to ensure that forecasts used in procurement and planning processes across both the transmission and distribution domains reflect the impacts of adopted state policies. The

result of this coordination is a “single forecast set,” which is a set of managed demand forecasts to be used in planning processes to ensure alignment across processes.¹

The CEC develops and adopts the single forecast set through the Integrated Energy Policy Report (IEPR) process. The Commission uses it in its integrated resource plan (IRP) process, resource adequacy program, and distribution planning. The CAISO also uses this forecast set in various planning processes, including its transmission planning process and local and flexible capacity studies. The single forecast set is critical to process alignment because portfolios in the IRP are transmitted to the CAISO for study in its transmission planning process, and the CAISO submits its local and flexible capacity studies into the resource adequacy proceeding for Commission adoption.

Coordination among the Commission, CEC, CARB, and CAISO staff ensures the forecasts used in procurement and planning processes and the subsequent feedback loops are aligned. The Commission should recognize the importance of the continued use of a single forecast set to align resource planning processes across proceedings, and forecast alignment should be a priority data coordination activity in Track 1 (Distribution Planning Process and Data Improvements), Phase 1 (Near-Term Actions) of this proceeding.² Continued coordination, transparency, and consistency across these processes will promote greater agency and stakeholder understanding in planning and procurement decisions.

B. The Commission must consider the differences between demand forecasts and demand scenarios.

Kevala’s presentation on its Electrification Impacts Study Draft Research Plan notes that “[c]urrent state load forecasting and infrastructure planning processes do not reflect California’s ambitious policy goals, nor do they anticipate future circuit-specific requirements critical to supporting those policy goals.”³ Kevala seems to conflate the current use of a *forecast* with a *scenario*. The single forecast set and process alignment currently rely on a CEC forecast, which is a likely prediction of the future, whereas demand scenarios help the user consider ranges of

¹ Final 2020 Integrated Energy Policy Report Update Volume III California Energy Demand Forecast Update, California Energy Commission, March 23, 2021, p. 19:
<https://efiling.energy.ca.gov/getdocument.aspx?tn=237269>

² Assigned Commissioner’s Scoping Memo and Ruling, R.21-07-017, November 15, 2021, p. 4.

³ CPUC High DER Project - Electrification Impacts Study Draft Research Plan, Kevala, Inc., December 7, 2021, Slide 6.

potential futures.⁴ Demand scenarios may reflect state goals but not adopted legislation or “mitigation” plans that assume realization of “what-if assumptions.”⁵

Thus far, demand scenarios have not been used for planning processes to approve infrastructure; rather, they have been used as the basis for additional exploratory studies. Relying on the single forecast set ensures that resulting infrastructure projects (*i.e.*, transmission infrastructure or supply-side generation builds) reflect the outcome mostly likely to occur, thus limiting stranded investment.

Kevala’s Draft Research Plan outlines an approach to develop “high electrification projections” that reflect a scenarios approach rather than a forecast based on the CEC’s definition. The CEC also has an effort underway to study a high electrification demand scenario through its Demand Scenarios Project.⁶ Although the CAISO is open to reviewing a high electrification demand scenario, using these scenarios in resource planning and study processes must be coordinated among planning entities and across both distribution and transmission domains. Uncoordinated use of forecasts versus scenarios, or using differing scenarios in the major planning processes, can lead to mismatched investments, stranded investments, stakeholder confusion, inefficient use of time, and ultimately failure to meet important policy goals.

C. Development of the Commission’s high electrification demand scenarios outlined in Kevala’s Draft Research Plan should be coordinated with existing process alignment efforts. For example, the CEC is already doing considerable work to coordinate with the IOUs and load serving entities in and outside of the Commission’s jurisdiction.

In its Draft Research Plan, Kevala presents an approach for developing a “bottoms up” high electrification demand scenario. Kevala states, “Throughout the implementation of the Draft Research Plan, Kevala will coordinate through the CPUC with its other consultants and California Energy Commission initiatives working on Integrated Resource Planning, demand forecasting for DERs, IEPR stakeholder processes, and electrification planning to share and

⁴ CEC Demand Scenarios presentation, December 2, 2021, Slide 7: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=240758>

⁵ *Id.* at Slide 11: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=240758>

⁶ *Id.* : <https://efiling.energy.ca.gov/GetDocument.aspx?tn=240758>

synchronize on inputs and assumptions.”⁷ Kevala also notes that its bottoms-up demand scenario will “be scaled to match system-level forecasts such as the IEPR 2021 forecast,”⁸ The CAISO supports Kevala’s intent to coordinate the high electrification demand scenario with CEC processes.

Kevala states that it will also “examine potential new methods for integrating policy-based forecasting scenarios into the Investor-Owned Utility (IOU) distribution planning process (DPP).”⁹ Given the CEC’s involvement in potentially overlapping activities, the Commission should ensure there is close coordination between Kevala’s work and the CEC’s IEPR process. For example, the CAISO recommends that Kevala coordinate closely with the IOUs who use circuit-level data today to develop demand forecasts at the busbar level for use in the CEC IEPR processes. It is not clear from the workshop how Kevala will develop and roll-up its circuit level forecasts to the feeder level and ultimately to the busbar level. The CAISO emphasizes that to be consistent with the CEC’s IEPR forecasts, Kevala’s bottoms up approach must roll-up to a coincident peak. Kevala should clarify its methodology, coordinate with the IOUs and CEC staff, and ensure it has a transparent and consistent methodology that is benchmarked against existing processes used by the IOUs. There may also be opportunities for data sharing and benchmarking as the CEC and the Commission develop high electrification demand scenarios.

III. Conclusion

The CAISO appreciates the opportunity to provide comments December 7, 2021 *CPUC Electrification Impacts and Study Workshop* (Workshop) by the Commission’s Energy Division. The CAISO continues to emphasize the importance of coordination among the Commission, the CEC, CARB, and the CAISO in evaluating demand forecasts used across resource planning processes. The CAISO also encourages the Commission to prioritize forecast alignment and data coordination in this track (Track 1, Phase 1) of this proceeding.

⁷ Electrification Impacts Study Draft Research Plan, Kevala, Inc., November 30, 2021, p. 3.

⁸ *Id.* at p. 13.

⁹ *Id.* at p. 1.

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