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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

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August 15, 2024

California Energy Commission
Docket Office, MS-4
Re: Docket No. 2-4IEPR-03
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: Southern California Edison Company's Comments on the California Energy Commission's Workshop on Energy Demand Forecast Methodology Updates Docket No. 24-IEPR-03

Dear Commissioners:

On July 30, 2024, the California Energy Commission (CEC) hosted a workshop focused on the recent and proposed updates to its California Energy Demand forecast methodology with highlights on the use of climate scenario data. Presentations included an overview of electricity load forecast methods, discussion of climate simulation modeling development, and the use of climate simulation and historical weather data in the demand forecast to support energy system planning and resiliency. Southern California Edison (SCE) appreciates the opportunity to submit comments on the Workshop for consideration.

SCE Recommends Validation of the Proposed IEPR Methodology Incorporating Climate Change Impacts

SCE commends the California Energy Commission on their initial efforts to incorporate climate change impacts into the Integrated Energy Policy Report (IEPR) load forecast. To that end, pursuing novel methodologies such as the quantile-based detrending methodology discussed in the July 30th workshop is a step in the right direction.

While SCE acknowledges the nascency of research that addresses the integration of climate variables into load forecasts, SCE would like to emphasize the importance of leveraging peer-reviewed research in deriving solutions to technical issues based in the climate science in future IEPR load forecast cycles. Given the nascency of the literature in the application of climate science to load forecasts, SCE suggests that the Commission cite the origin of future methods in the broader academic literature to establish an academic basis for selection, which can be revisited in future cycles. Assessment of proposed methodologies for reflecting climate change in future IEPR load forecast cycles should also incorporate a review of evidence of statistical significance and model robustness for models and methodologies chosen, relative to other methods considered but not adopted.

SCE has some initial concerns about the detrending methodology presented in the July 30th workshop may not resolve extremes well. It is not clear how the choice to detrend models by quantile affects the diurnal characteristics of heatwaves and cold snaps, which would be consequential to the "peakiness" of the load forecast. The edges of the detrended results are still

quite "noisy," which indicates that the distribution of outcomes (and therefore 1-in-10, and 1-in-20 forecasts) could be sensitive to the approach selected. This could impact downstream reliability studies informed by the IEPR load forecast which are based on those extreme conditions.

SCE Supports Hourly Consumption Adjustments Using Revised Behind-the-Meter PV Profiles

SCE appreciates the CEC's efforts in refining its solar photovoltaic (PV) forecast including building more reasonable solar PV generation profiles. SCE anticipates that the CEC's PV forecast adjustments will lead to lower counterfactual consumption loads during high PV generation hours, which would better align the forecasted peak demand hours. SCE would like to continue to work with the CEC staff closely in understanding and evaluating the associated forecast changes and impacts before the changes get incorporated into the final 2024 IEPR forecast.

SCE Supports Continued Collaboration

SCE recognizes the importance of the CEC's use of newly developed climate projections and detrended weather variants. These tools are crucial for creating accurate hourly consumption profiles. Thus, SCE encourages the sharing of weather and climate data used for IEPR consumption modeling across California weather stations. Furthermore, SCE supports the central development of stochastic load profiles and reliability modeling by the CEC with strong stakeholder engagement.

SCE would also suggest additional Demand Analysis Working Group (DAWG) meetings to have continuous thorough reviews and discussions of complex modeling efforts and forecast methodology changes to ensure that all stakeholders have sufficient time and opportunities to vet and support the major forecast changes in time.

Conclusion

SCE thanks the CEC for consideration of the above comments. Please do not hesitate to contact me at (626) 302-0905 or Dawn.Anaiscourt@sce.com with any questions or comments you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/

Dawn Anaiscourt