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SCE Comments on Revised Demand Forecast

Additional submitted attachment is included below.

February 14, 2018

California Energy Commission
Docket Office, MS-4
Re: Docket No. 17-IEPR-03
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: Southern California Edison Company's Comments on the California Energy Commission Docket No. 17-IEPR-03: California Energy Demand 2018-2030 Revised Forecast

Dear Commissioner McAllister:

On December 15, 2017, the California Energy Commission (Energy Commission) held a workshop on California's electricity and natural gas demand forecast as part of the 2017 Integrated Energy Policy Report (IEPR) Process. During that workshop, staff from the Energy Commission presented a 12-year forecast of electricity and natural gas consumption and electricity peak demand (the Demand Forecast). Following the workshop, a revised Demand Forecast was released on January 22, 2018. Southern California Edison (SCE) has reviewed the revised Demand Forecast, and appreciates the opportunity to provide these written comments.

SCE commends the Energy Commission for their tremendous efforts in producing the Demand Forecast, which includes many significant enhancements over previous Demand Forecasts, such as increased robustness in Electric Vehicle forecasting and improved granularity through hourly load forecasting. In spite of the many improvements to the Demand Forecast, SCE underscores three remaining issues of concern, which SCE expands on in these comments: (1) SCE supports the Energy Commission's increased electric vehicle forecast and energy forecast adjustments, but believes that the Demand Forecast's assumption on the future EV load shape significantly underestimates the impacts that the EV load will have on SCE's peak demand; (2) the Consumer Choice Aggregator (CCA) forecast will likely underestimate the amount of *future* CCA departing load given that the forecast is static in nature and, as such, does not reflect likely departing CCA load that will occur in the future; and (3) the Demand Forecast significantly underestimates the peak shift impact in SCE's territory—a possible anomaly, when comparing SCE's peak shift impact to PG&E's peak shift impact. This impact, in turn, results in an underestimation of SCE's long-term peak demand growth. SCE hopes to work collaboratively with the Energy Commission and stakeholders to address these three items and make further enhancements to the Demand Forecast going forward.

1. SCE Foresees a Greater Impact to its Peak Demand as a Result of the Updated EV Forecast

SCE appreciates the Energy Commission’s improvement to its EV modeling and forecasting, and believes that these changes have resulted in a more robust forecast, reflective of California’s EV market growth potential and progressive policy goals. SCE also appreciates the Energy Commission’s receptiveness to stakeholder input, and believes that EV forecasting will be an important topic for engagement, given the dynamic market changes and policy impacts related to EV adoption specifically, and transportation electrification, in general.

In reviewing the revised Demand Forecast, however, SCE disagrees with the Energy Commission’s assessment of the impact of the EV forecast on SCE’s peak demand forecast, in which the Energy Commission notes, “[t]he higher projections for EVs have relatively less impact on peak demand than on consumption and sales, as most recharging occurs in off-peak hours.” SCE believes that, given the ongoing development of incentives for EV charging—such as rate structures tailored to customers with EVs, as well as efforts to expand public charging infrastructure for EVs (e.g., through SCE’s “Charge Ready” program and similar efforts)—that *today’s* EV charging load patterns will not be reflective of *future* customer charging behaviors. As such, the resulting impact of Energy Commission’s increased electric vehicle projection will likely result in *greater peak demand growth* in the future than the Energy Commission predicts in its Demand Forecast.

SCE recommends that the Energy Commission consider efforts to increase EV charging flexibility throughout the 24-hour day into its assessment of EV load impacts on SCE’s peak demand. This will be critical to state planning efforts. SCE is happy to collaborate with the Energy Commission and stakeholders to enhance EV load shape assumptions and modeling to reflect future anticipated customer behaviors in the Demand Forecast.

2. SCE Recommends that the Energy Commission continue working with Utilities and other Stakeholders to Update and Enhance the CCA Forecast

SCE commends the Energy Commission for increasing the number of CCAs in its departing load forecasts as part of the Demand Forecast, and believes that doing so is a significant enhancement to the Demand Forecast. Although the CCA forecast provides some very useful information for planning purposes, it remains limited in its ability to predict future CCA departing load; and, because the forecast is static in nature and CCAs are constantly changing, it is likely to underestimate future CCA departing load. SCE has been conducting its own forecasting methodology for CCA departing load, which SCE relies on for planning purposes, including resource adequacy requirements and procurement needs. SCE is happy to share its methodology and updates with the Energy Commission, and hopes to work collaboratively with the Energy Commission, utilities, and other stakeholders, to help enhance the CCA forecast for the 2018 IEPR forecast update and ensure a more accurate depiction of departing load in California.

3. The Demand Forecast Appears to Underestimate the Peak Shift Impact in SCE's Service Territory

SCE appreciates the Energy Commission's significant efforts to improve the granularity of the Demand Forecast through its use of an 8,760-hourly load forecast, and believes that this methodology will provide increasingly useful information for energy planning purposes. SCE recognizes that this significant effort required the integration of new forecasting elements including the distributed energy resource load shapes, which left little time to properly vet the new hourly forecasts with stakeholders. Upon SCE's review of the hourly load forecast, SCE noticed an apparent anomaly when comparing PG&E's peak shift impact to SCE's peak shift impact. Whereas the Energy Commission forecasts a 2,000+ MW peak shift impact in PG&E's territory, it forecasts a much smaller 600 MW peak shift in SCE's territory¹. SCE disagrees with this assessment, and has provided comments noting its assessment of a *roughly 2,000 MW* peak shift predicted in SCE's service territory in previously IEPR Workshop comments.²

SCE emphasizes that this large difference in peak shift forecast is critically important, as it, in turn, impacts SCE's long-term peak demand growth forecast. SCE would like to collaborate with the Energy Commission to investigate and address this perceived anomaly in the Demand Forecast to ensure a more accurate Demand Forecast.

SCE appreciates the Energy Commission's consideration of these comments and looks forward to its continuing collaboration with the Energy Commission and stakeholders. Please do not hesitate to contact me at (916) 441-3979 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/

Catherine Hackney

¹ See CEC's publication (Docket 17-IEPR-03), "The California Energy Demand 2018-2030 Revised Forecast", Table 25 on Page 92 for PG&E forecast and Table 32 on Page 103 for SCE forecast.

² See SCE Comments on August 24, 2017 Workshop on IEPR Preliminary Demand Forecast