SOUTHERN CALIFORNIA EDISON
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California Energy Commission
Docket Office, MS-4
Re: Docket No. 13-IEP-1C
1516 Ninth Street
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Re: *Southern California Edison Company's (SCE's) Comments on the California Energy Commission Docket No. 13-IEP-1C Lead Commissioner Workshop on Revised Electricity and Natural Gas Demand Forecasts 2014-2024*

To Whom It May Concern:

On October 1, 2013, as part of the California Energy Commission's (Energy Commission's) 2013 Integrated Energy Policy Report (2013 IEPR) process, the Energy Commission held a Lead Commissioner Workshop on the Revised Electricity and Natural Gas Demand Forecasts for 2014-2024 ("the Workshop"). Southern California Edison (SCE) participated in the Workshop and appreciates the opportunity to provide these written comments.

As discussed in greater detail below, SCE commends the Energy Commission for its efforts in fostering greater transparency and collaboration among stakeholders, and for refining its demand forecast by including additional transportation electrification elements and improved delineation of energy efficiency (EE) savings load forecasts. SCE encourages continued efforts to develop an increasingly transparent and inclusive stakeholder process with opportunities for stakeholders to provide early and ongoing input to help better inform the demand forecast, provide greater consistency, and incorporate further analysis and feedback in a timely manner.

Additionally, SCE offers the following recommendations for improvements as the Energy Commission develops its final demand forecast:

(1) Incorporation of updated Electric Vehicle (EV) and electrification load forecasts into final forecast;

(2) Adjustment of peak demand forecast for SCE planning area using actual observed annual peak demand for 2013;

(3) Avoidance of potential "double counting" for non-event based Demand Response (DR) programs in the overall peak demand forecast;

(4) Explicit incorporation of total EE savings impacts in overall demand forecast; and

(5) Collaboration with utilities and other stakeholder to resolve remaining discrepancies in the Demand Forecast, particularly the EE Potential Study and Decay Methodology.

A. SCE Encourages a More Inclusive, Transparent, Robust Stakeholder Process

SCE supports the Energy Commission's efforts to collaborate with various stakeholders, including regulatory agencies, utilities, researchers, and engineers, to help better inform the demand forecast. At the same time, SCE believes that given the depth and breadth of data and analysis that is required for producing the demand forecast, the Energy Commission would benefit from a more inclusive, transparent, and robust stakeholder process, in which stakeholders have ample opportunity to provide review and feedback of the Energy Commission's demand forecast and related analyses throughout the development and decision making process.

SCE continues to support and encourage interagency collaboration on the demand forecast so that agencies can develop policies that provide clear and consistent direction to stakeholders, including vehicle developers, researchers, and engineers. SCE suggests that the Energy Commission continue to expand its collaboration with the Air Quality Management Districts (AQMDs), Southern California Association of Governments (SCAG), and the California Air Resources Board (CARB) on all transportation-related aspects of the demand forecast, as the efforts of these agencies are necessitating greater electrification of transportation.

Utility, agency, and other stakeholder collaboration will improve the collective understanding on transportation electrification issues in the demand forecast, including, but not limited to, the amount and nature of existing inventory, load shapes, and the future penetration and development of electric transportation technologies.

B. Electric Vehicle and Electrification Load Forecast Should Be Updated

SCE continues to support the inclusion of all types of transportation electrification in the Energy Commission's demand forecast. In addition to electric vehicles (EVs), such forms of transportation include high speed rail, existing light rail and subway extensions, electric fixed route medium and heavy duty trucks, electric forklifts, catenary trucks and shore power. SCE commends the Energy Commission's efforts in revising its demand forecast, but updated EV and electrification load forecasts should be incorporated into the final forecast to more accurately reflect the current projected outlook and future load growth uncertainties. SCE believes that the Energy Commission should prioritize the completion of its demand forecast update and that it should allow sufficient time for the inclusion of the most recent EV and electrification load forecasts in its final demand forecast.

SCE recommends that the Energy Commission expand its current forecast for EV adoption and consider implementing a forecasting methodology similar to SCE's, which utilizes three different scenarios:

- A low-case scenario based on the California Air Resources Board (CARB) Zero-Emission Vehicles Mandate model;

- A mid-case scenario based on an analysis of published studies; and,
- A high-case scenario based on a factor of 1.75 to 2 times the mid-case scenario.

The rate of transportation electrification is highly uncertain, and incorporating uncertainty into the Energy Commission's forecast will provide industry stakeholders with a better understanding of the implications of that uncertainty on the electric system.

SCE is concerned about the Energy Commission's estimated 10-week time frame for completion of the current update on EV and electrification load forecast. SCE urges the Energy Commission to prioritize its update effort and to take existing utility forecasts into consideration in preparing the final forecast in order to meet its proposed deadline. SCE looks forward to continuing to collaborate with the Energy Commission and other stakeholders to further refine transportation electrification elements in the demand forecast.

C. The Energy Commission Should Adjust Peak Demand for SCE Planning Area by Using Actual Observed Annual Peak Demand for 2013

SCE identified a fundamental issue with how peak for SCE's planning area was weather normalized, which resulted in a major discrepancy between the Energy Commission's and SCE's annual peak demand forecasts for the SCE planning area. Following collaborative efforts with Energy Commission and California Independent System Operator (CAISO) staff to investigate the issue, SCE determined that the use of weather stations, station weights, and peak temperature measurement can have significant impacts on the weather normalization results of historical loads, which can significantly impact future peak demand forecast results.

SCE therefore encourages the Energy Commission to use the actual observed 2013 peak demand in the SCE service area as a starting point for the Energy Commission's long-term peak demand forecast. SCE's observed peak demand for 2013 was much higher than the projected peak in the Energy Commission's revised forecast. If the Energy Commission were to use the actual 2013 annual peak demand as the new starting point of their forecast and apply the similar annual peak demand growth rate projected between 2013 and 2024, CEC would generate a much higher peak demand forecast for future years due to the adjustment in the first year's forecast. SCE believes that it is reasonable for the Energy Commission to revise its peak demand forecast by utilizing the actual 2013 annual peak demand data.

D. SCE is Concerned that Inclusion of Additional Non-Event Based DR Programs in the Overall Peak Demand Forecast will Result in A "Double Counting"

DR programs such as Critical Peak Pricing (CPP) and Peak Time Rebate (PTR) have been treated as dispatchable supply-side resources in the past. As a result, these programs have been counted toward meeting resource adequacy requirements for load serving entities. If the power is deducted from the Energy Commission's final demand forecast, such treatment could result in "double counting." In addition, SCE thinks that these DR resources are best represented as supply-side resources based on how they will be dispatched. Therefore, SCE recommends that Energy Commission exclude both CPP and PTR program impact in the peak demand forecast.

E. Energy Efficiency Potential Study and Scenarios

SCE supports the Energy Commission's use of the annual incremental 2013 EE Potential study as a base for determining mid-level EE savings, provided that the Energy Commission's EE programs, requirements, and the use of EE forecasts are in alignment with the California Public Utilities Commission's (CPUC's) treatment of such matters. Decision 12-05-014 set forth 2013 and 2014 EE goals (Annual Incremental, which includes decay replacement). In addition, pursuant to Ordering Paragraph (OP) 20 of that Decision, SCE is responsible for half of the EE program decay replacement. SCE understands, however, that the CPUC's Energy Division views the OP 20 decay replacement requirement to be in error. SCE looks forward to continued collaboration with the Energy Commission, the CPUC and other stakeholders in both the IEPR and EE proceeding to resolve this issue.

SCE believes that the five proposed scenarios are reasonable, well thought out, and accurately convey input from past SCE scenario comments. The proposed low, mid, and high EE savings scenarios reflect a good range of cases that are suitable for long-term procurement planning purposes. Given the similarities between the low/low mid and high/high mid scenarios, SCE is agnostic about which low or high case is ultimately chosen.

F. Considerations for Decay Methodology

SCE has concerns regarding the methodology for calculating decay, specifically in the Industrial and Agriculture sectors of the 2013 EE Potential study. The Residential and Commercial sectors of the 2013 EE Potential study utilize a sound methodology for estimating customer decay repurchase decisions. Specifically, the 2013 EE Potential study uses a bottom up methodology that identifies measures that have reached the end of their useful life (measure decay) and runs the decayed measure back through the decision choice model to determine customer choice of measure adoption/re-adoption.

By contrast, the Industrial and Agriculture sectors of the 2013 EE Potential study utilize a top down methodology to calculate decay. Industrial/Agriculture decay assumptions presume that, for certain measures, more efficient measures or processes will become commercially available in the future and that EE savings will persist or refresh over time. There is significant uncertainty regarding the correct slope of the refresh decay savings line. Currently, future decayed EE potential savings are assumed to persist and remain flat over time, but with codes and standards, industry standard practices, and market saturations increasing over time, savings that can be captured by Investor-owned Utility (IOU) EE programs will be limited. SCE believes that measure-level savings will not remain flat, but should decline over time. This issue should be resolved prior to use of the Industrial or Agriculture EE potential data.

G. SCE Recommends the Incorporation of Total EE Savings Impact in the Demand Forecast

SCE can conduct a more meaningful comparison of its and the Energy Commission's demand forecast if the Energy Commission incorporates the total EE savings impact in the overall demand forecast. Incorporating certain EE savings in the baseline forecast and the

remaining EE savings (now called AAEE savings) in a separate revised forecast could result in confusion and add unnecessary complexity for planning activities. For example, it is difficult for SCE to make any direct comparison with the Energy Commission's baseline forecast without taking into account the full EE savings impact. In addition, SCE believes it is more meaningful for the Energy Commission to build its scenario forecasts around the expected case forecast with the full EE impacts incorporated.

The Energy Commission continues to deploy its long-standing methodology of separating EE program saving into three discrete categories: (1) historic, which encompasses EE savings captured prior to 2013; (2) committed, which includes EE program savings that have been approved and funded (2013-2014); and (3) uncommitted, which includes EE program savings that have not yet been approved and funded (2015 and beyond). SCE views the continued separation of current and future EE program savings into committed and uncommitted categories to be a relic of past forecasting methodology, and recommends that the treatment of EE Program savings be revisited. SCE agrees with the concept of identifying the uncertainty contained in load forecasting models, and supports the building of EE savings scenarios to help account for uncertainty. SCE does not believe, however, that the continuation of EE programs are the major source of EE program uncertainty, and further believes that the main sources of uncertainty are addressed in the high, mid and low scenarios. SCE therefore recommends that the committed/uncommitted designation be abandoned and that EE program savings be treated as committed savings over the life of the forecast.

H. SCE's Response to Commissioner Weisenmiller's Query

In response to Commissioner Weisenmiller's question during the Workshop regarding SCE's view on the disproportionate energy growth projections for inland versus coastal areas within Southern California Edison's service territory, SCE acknowledges that further studies and modeling efforts will be needed to provide the Energy Commission with SCE's view of the future energy consumption and peak demand growth patterns across different climate zones. Based on SCE's currently-limited forecast data on residential customer consumption, SCE believes that inland areas will experience higher growth in energy consumption relative to coastal areas. This could be driven by relatively greater expansion in housing or a larger increase in customers in inland areas versus coastal areas. SCE would like to pursue more research efforts in this area to provide the Commission with a more comprehensive assessment in the future.

In conclusion, SCE appreciates the Energy Commission's consideration of these comments and looks forward to its continuing collaboration with the Energy Commission. Please do not hesitate to contact me at (916) 441-2369 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/ Manual Alvarez

Manuel Alvarez