DOCKETED	
Docket Number:	25-IEPR-03
Project Title:	Electricity and Gas Demand Forecast
TN #:	264255
Document Title:	CEA 2025 IEPR Demand Forecast Form 4 Narrative Public
Description:	N/A
Filer:	Jen-Ann Lee
Organization:	Braun Blaising and Wynne
Submitter Role:	Public Agency
Submission Date:	6/16/2025 10:32:41 AM
Docketed Date:	6/16/2025

Clean Energy Alliance ("CEA") utilizes its load forecasting model/methodology for three primary purposes: (1) for portfolio management and procurement; (2) for the development of financial projections; and (3) for Resource Adequacy compliance with the California Public Utilities Commission ("CPUC") and the California Independent System Operator ("CAISO"). The adopted load forecasting methodology focuses primarily on the projected customer counts within the CEA service territory and incorporates historical per capita usage data to derive the load forecast. The CEA service territory includes the Carlsbad, Del Mar, Solana Beach, Escondido, San Marcos, Oceanside, and Vista.

The load forecast is developed for each of the five major customer classes served by CEA. These include the following customer classes:

Load Profile Group	**Internal Forecasting Classification**	**2025 IEPR Forecast Classification**
RES	Residential	Residential
SMLCOM	Small Commercial	Commercial
MEDCI	Medium & Large Commercial	Commercial
AGR	Agriculture & Pumping	Other
LIGHT	Lighting	Other

CEA's load forecasting process starts with a baseline-forecast of current customers by end-use classification (residential, commercial, etc.), utilizing historical usage data and customer counts. CEA uses historical weather data from San Diego International Airport (KSAN) as a proxy for its current service territory, and linear regression models to estimate relationships between weather variables (heating degree days, cooling degree days, and solar insolation) and customer consumption patterns. The resulting coefficients are then applied to normalized weather conditions, over a 5-year observation period, and current customer counts to derive a forecast for the existing customer base. Potential impacts of climate change are captured by utilizing the most recent 5-years of observed weather data as the benchmark for normal weather conditions. CEA also utilizes statistical analyses to determine historical relationships between the top five daily recorded peaks in each month and monthly energy consumption for its service territory. The peak demand forecast is then estimated as a function of forecasted consumption under normalized weather conditions, based on the observed historical relationships. A 4.3% distribution loss factor is also applied, which aligns with the overall recorded historical average over CEA's existence. CEA also enrolled a single large account in January 2025, which increased CEA's overall energy needs by approximately 10% annually, and increased peak demand by 6%-10% monthly. The impacts of this account have been forecasted through analysis of historic SDG&E billing data and forecasted impacts are reflected in this forecast.

For load projections beyond the current year, CEA has adopted an annual load growth rate of 1.77%, aligning with average SDG&E TAC area growth (2025-2030) as specified in the 2023 CEC IEPR Energy Demand Planning Forecast, to address net effects of broader prospective incremental load modifiers and growth in distributed energy resources in the 2026 forecast and beyond.

CEA utilizes historical consumption data to calibrate and adjust its load forecast. The calibration process is run monthly and compares the most recent monthly kWh and peak kW usage data to the forecast values. The forecast is tracked relative to both the initial usage estimates (T+9) reported to the CAISO as well as the final reported usage (T+70). To the extent that the monthly forecast error exceeds a 5% threshold, CEA evaluates the potential causes of the variance and, if such error is deemed likely to persist, adjusts the forecast going forward.