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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.	R.21-06-017

CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON PACIFIC GAS AND ELECTRIC COMPANY'S, SAN DIEGO GAS & ELECTRIC COMPANY'S, AND SOUTHERN CALIFORNIA EDISON COMPANY'S DRAFT ELECTRIFICATION IMPACT STUDY PART 2 REPORTS

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SUMMARY OF RECOMMENDATIONS[1]

CalCCA recommends that the IOUs include the following modifications in their final EIS Part 2 Reports:

- The IOUs should refine the assumptions used in the demand flexibility scenarios to inform strategies to achieve greater distribution grid cost reductions;
- The IOUs should refine their mitigation assumptions to ensure they are realistic, achievable, and consider potential costs to customers, as set forth below:
    - SCE should revise its program participation assumptions for the Alternative Demand Flexibility scenario to reflect realistic and attainable levels;
    - SCE should revise its Base Case assumption that adds too much flexibility, including to the TE charging shape that goes beyond the existing TOU rates;
    - PG&E should revise its assumptions for L1 and L2 EV charging participation in dynamic pricing programs;
    - PG&E should reassess its assumptions for new transformers on the secondary system; and
    - PG&E should update its Enhanced Demand Flexibility scenario to not assume perfect orchestration.
- The IOUs should provide greater clarity and maintain consistent assumptions for their Base Case mitigations;
- SCE and SDG&E should include the estimated distribution rate impacts of electrification load growth; and
- SCE and SDG&E should include descriptions of their plans for improving their methodologies for modeling the secondary system.

[1] Acronyms used herein are defined in the body of this document.

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California Community Choice Association[2] (CALCCA) submits comments on Pacific Gas and Electric Company's (PG&E), San Diego Gas & Electric Company's (SDG&E), and Southern California Edison Company's (SCE) (collectively, the investor-owned utilities (IOUs)), draft Electrification Impact Study (EIS) Part 2 Reports (Draft Reports).[3] These comments are filed in response to Administrative Law Judge Jack Chang's email of Monday, December 8, 2025, that clarifies that comments on the Draft Reports, due on December 15, 2025, must be e-filed into the R.21-06-017 docket and served to the current service list for R.21-06-017.

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[2] California Community Choice Association represents the interests of 24 community choice electricity providers in California: Apple Valley Choice Energy, Ava Community Energy, Central Coast Community Energy, Clean Energy Alliance, Clean Power Alliance of Southern California, CleanPowerSF, Desert Community Energy, Energy For Palmdale's Independent Choice, Lancaster Energy, Marin Clean Energy, Orange County Power Authority, Peninsula Clean Energy, Pico Rivera Innovative Municipal Energy, Pioneer Community Energy, Pomona Choice Energy, Rancho Mirage Energy Authority, Redwood Coast Energy Authority, San Diego Community Power, San Jacinto Power, San José Clean Energy, Santa Barbara Clean Energy, Silicon Valley Clean Energy, Sonoma Clean Power, and Valley Clean Energy.

[3] *See Pacific Gas and Electric Company's (U 39 E) Draft Electrification Impact Study Part 2*, Rulemaking (R.) 21-06-017 (Oct. 31, 2025); *San Diego Gas & Electric Company's (U 902 E) Draft Electrification Impact Study Part 2*, R.21-06-017 (Oct. 31, 2025); *Southern California Edison Company's (U 338-E) Electrification Impacts Study Part 2 Draft Report*, R.21-06-017 (Oct. 31, 2025).

I. INTRODUCTION

The IOUs' final EIS Part 2 Reports will inform the strategic integration of load management and demand flexibility into the distribution planning processes under various scenarios. Given California's current rate affordability crisis and the anticipated growth of electrification, grid capacity must be optimized, and the need for costly upgrades must be reduced. The Draft Reports present the IOUs' first analysis of the potential costs and benefits of load management and demand flexibility to meet this objective.

CalCCA appreciates the efforts of each of the IOUs in preparing the Draft Reports. Each of the IOUs undertook a different approach in the Draft Reports, resulting in varying estimates of demand flexibility opportunities and cost savings. PG&E provided the most detailed assessment of the impacts on the secondary distribution grid, using a methodology developed in-house. SCE took a different approach by modeling demand flexibility down to the circuit level and disaggregating it to the secondary system. However, SCE did not conduct a granular analysis of infrastructure needs on the secondary system, unlike PG&E's analysis. SDG&E similarly used simplified assumptions to determine demand flexibility and growth impacts, as well as mitigations to offset the need for distribution upgrades.

CalCCA recommends the IOUs include the following modifications in their final EIS Part 2 Reports:

- The IOUs should refine the assumptions used in the demand flexibility scenarios to inform strategies to achieve greater distribution grid cost reductions;
- The IOUs should refine their mitigation assumptions to ensure they are realistic, achievable, and consider potential costs to customers, as set forth below:
    - SCE should revise its program participation assumptions for the Alternative Demand Flexibility scenario to reflect realistic and attainable levels;

- SCE should revise its Base Case assumption that adds too much flexibility, including to the Transportation Electrification (TE) charging shape that goes beyond the existing time-of-use (TOU) rates;
- PG&E should revise its assumptions for Level 1 (L1) and Level 2 (L2) Electric Vehicle (EV) charging participation in dynamic pricing programs;
- PG&E should reassess its assumptions for new transformers on the secondary system; and
- PG&E should update its Enhanced Demand Flexibility scenario to not assume perfect orchestration.

- The IOUs should provide greater clarity and maintain consistent assumptions for their Base Case mitigations;
- SCE and SDG&E should include the estimated distribution rate impacts of electrification load growth; and
- SCE and SDG&E should include descriptions of their plans for improving their methodologies for modeling the secondary system.

II. THE IOUS SHOULD REFINE THE ASSUMPTIONS USED IN THE DEMAND FLEXIBILITY SCENARIOS TO INFORM strategies to achieve GREATER DISTRIBUTION GRID COST REDUCTIONS

The IOUs should refine their assumptions and perform additional sensitivity analyses for each of the Draft Reports to inform distribution planning strategies that can achieve greater system benefits and cost reductions. One of the primary objectives of the EIS Part 2 Reports is to identify the preliminary potential value of mitigating distribution upgrades driven by the rapid growth of electrification through the targeted adoption of distributed energy resources (DER) and load flexibility.[4] This expansion of electrification is occurring at a time when California is already experiencing a crisis in rate affordability. Since distribution system costs are a large and growing cost component of electricity rates,[5] the IOUs must be diligent in identifying assumptions,

[4] *EIS -Part 2, Draft Results Presentation Workshop* (EIS Workshop) (Nov. 19, 2025), video recording, at 6:46: https://www.youtube.com/watch?v=CXvD2Nv7pz8.

[5] California Energy Commission, *2024 California Electric and Gas Utility Costs Report, AB 67 Annual Report to the Governor and Legislature* (Sept. 2025), at 21-22: https://www.cpuc.ca.gov/AB67Report.

limitations of the study, and potential mitigation measures to offset potential rate increases. While the IOUs' Draft Reports represent a preliminary assessment, additional work is necessary to ensure the reports are transparent about real-world limitations so that cost reductions are more likely to be achieved through enhanced distribution planning.

PG&E's and SCE's demand flexibility scenarios demonstrate only modest cost savings compared to their base case scenarios. The cumulative base case costs shown in PG&E's Draft Report were $25.5 billion in 2040, compared to $23.7 billion in the Enhanced Demand Flexibility scenario for the same year. This amounts to a cost reduction of $1.8 billion, or seven percent. SCE's Draft Report showed a cumulative Base Case cost of $13.2 billion by 2040, compared to $12.9 billion for its Initial Demand Flexibility scenario and approximately $11.8 billion for its Alternative Demand Flexibility scenario. This represents a cost reduction of $320 million, or 2.4 percent, for its Initial Demand Flexibility scenario, and $1.4 billion, or 10.4 percent, for its Alternative Demand Flexibility scenario.

While SDG&E's Draft Report showed cost savings of almost 23 percent between its Base Case and Demand Flexibility scenario, it characterized the Draft Report as "conceptual" and employed a simplified modeling approach.[6] SDG&E further stated that it "did not independently undertake an investigation to identify any specific load management programs that could be leveraged to fulfill" the "potential for reduced infrastructure needs through strategic load management."[7] For this reason, SDG&E should be required to reexamine its assumptions and study methodologies to fully leverage the potential of demand flexibility.

In addition, both SCE and SDG&E downplayed the near-term potential for demand flexibility to offset the need for grid upgrades in the Draft Reports. SCE stated that "demand

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6 SDG&E Draft Report, at 4.

7 *Id*. at 1.

flexibility may not yet be a dependable substitute for traditional infrastructure solutions and highlights the need for further validation before integration into the distribution planning process."[8] SDG&E casts doubt on the usefulness of the Equity and Demand Flexibility scenarios, viewing them instead as "hypothetical "what if" situations that carry little weight in terms of anticipating the infrastructure that will be needed to meet future, real world needs."[9]

Demand flexibility could offer significant potential for mitigating the need for grid upgrades. The challenge facing the IOUs is to balance the need for cost-effective and reliable demand flexibility measures with the urgent need to address affordability, in the context of rapid electrification. Rather than dismissing the potential for demand flexibility to reduce the need for grid upgrades, the IOUs should instead focus on expediting and expanding the use of demand flexibility, including implementing pilots to validate its reliability and cost-effectiveness.

III. THE IOUS SHOULD REFINE THEIR MITIGATION ASSUMPTIONS TO ENSURE THEY ARE REALISTIC, ACHIEVABLE, AND CONSIDER POTENTIAL COSTS TO CUSTOMERS

The IOUs should reexamine and refine their demand flexibility assumptions to ensure they are realistic, achievable, and consider the potential customer costs associated with the measure. Decision (D.) 24-10-030 established that the EIS Part 2 Reports "should produce learnings that translate into improvements" for the IOUs' Distribution Planning and Execution Processes.[10] Using unrealistic assumptions will not produce credible results to inform distribution planning, however. In fact, ignoring the cost impacts on customers may lead to overly optimistic estimates of demand flexibility adoption rates and undermine the real benefits of demand flexibility.

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[8] SCE Draft Report, at 21.

[9] SDG&E Draft Report, at 28.

[10] D.24-10-030*, Decision Adopting Improvements to Distribution Planning and Project Execution Process, Distribution Resource Planning Data Portals, and Integration Capacity Analysis Maps,* R.21-06-017 (Oct. 23, 2024), at 97: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M544/K154/544154869.PDF.

While adjusting the assumptions to be more realistic and achievable may result in reduced cost savings between the base and demand flexibility cases, the results of the final EIS Part 2 Reports must be reliable and achievable. This should not be construed to mean that the IOUs should not aggressively pursue means of expanding reliance on demand flexibility to mitigate the need for distribution investments, as explained in Section II of these Comments. Rather, this is consistent with the recommendation for the IOUs to refine and improve upon the initial results from the Draft Reports to validate the reliability and cost-effectiveness of demand flexibility.

Instead, the IOUs should implement the following refinements, as set forth below:

(1) SCE should revise its program participation assumptions for the Alternative Demand Flexibility Scenario to reflect realistic and attainable levels;

(2) SCE should revise its Base Case assumption that adds too much flexibility, including to the TE charging shape that goes beyond the existing TOU rates;

(3) PG&E should revise its assumptions to include both L1 and L2 EV charging participation in dynamic pricing programs;

(4) PG&E should reassess its assumptions for new transformers on the secondary system; and

(5) PG&E should update its Enhanced Demand Flexibility scenario to not assume perfect orchestration.

A. SCE Should Revise Its Program Participation Assumptions for the Alternative Demand Flexibility Scenario to Reflect Realistic and Attainable Levels

SCE's Alternative Demand Flexibility scenario assumes 100 percent participation rates for EVs and energy storage, rationalizing this assumption as a "theoretical bound to assess the maximum potential of demand flexibility" for these technologies.[11] In response to comments from Energy Division (ED) staff during the November 20, 2025, EIS Workshop, SCE stated that this assumption stemmed from ED's finding that the Initial Demand Flexibility scenario seemed to

[11] SCE Draft Report, at 11.

reflect business-as-usual.[12] A 100 percent demand flexibility participation rate is not a reliable planning assumption and should be revised to reflect levels that are both realistic and attainable. If SCE's program participation assumptions are not revised to reflect realistic and attainable participation levels, SCE's report would likely reflect over-investment, resulting in distorted levels of underperformance and cost inefficiencies.

B. SCE Should Revise its Base Case Assumption that Adds Too Much Flexibility, Including to the TE Charging Shape that Goes Beyond the Existing TOU Rates

SCE stated in the EIS Workshop discussion of its demand flexibility results that it added too much flexibility to its TE charging load shape by imposing flexibility from TOU rates that go beyond the existing TOU rates in its Base Case. SCE also stated that it is committed to correcting this mistake in future distribution planning processes.[13] This error reduced the cost savings between the Base Case and Initial Demand Flexibility scenarios, but the total impact was not clear from the discussion. SCE should either modify the Base Case to remove the additional demand flexibility or include a description of the error and potential impacts in the narrative about the scenarios.

C. PG&E Should Revise Its Assumptions to Include Both L1 and L2 EV Charging Participation in Dynamic Pricing Programs

PG&E should revise its assumptions for dynamic pricing response to incorporate both L1 and L2 EV charging. PG&E's Draft Report makes unrealistic assumptions about customer adoption of L2 home EV charging for its Enhanced Demand Flexibility Scenario, assuming only home L2 charging will respond to dynamic pricing. The Draft Report provides estimates of home L2 chargers available to shift loads to periods of low dynamic pricing.[14] This assumption overlooks the high

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12 EIS Workshop (Nov. 20, 2025), video recording, at 1:08:27: https://www.youtube.com/watch?v=aQ9yWlDMGFU.

13 *Id*., at 35:40 and 1:20:00.

14 PG&E Draft Report, at 71.

costs for customers to upgrade their residential service panels to accommodate L2 charging, which could deter participation in future dynamic pricing programs.

Rather than focusing exclusively on L2 chargers for responding to dynamic pricing signals, PG&E should revise its assumption to also include L1 charging. While this may reduce the cost savings relative to L2 charging, the lower cost of L1 chargers could result in greater overall participation in dynamic pricing programs, providing a more realistic assumption based on consumer behavior.

As an example, Peninsula Clean Energy (PCE) conducted a study of 'right-sizing' transportation electrification to support its EV Ready incentive program for EV charging for multifamily housing, workplaces, and public parking.[15] The study found that L1 chargers can meet the needs of nearly all commuters at significantly lower costs, while enabling more charger installations than would be possible otherwise. This right-sizing approach, which uses devices specifically sized to meet customer needs, eliminates the need for service upsizing and avoids costly distribution upgrades.

D. PG&E Should Reassess Its Assumptions for New Transformers on the Secondary System

PG&E employed a fundamentally different approach from the other IOUs in the Draft Report for estimating the need for new or replacement transformers on the secondary system, which resulted in a $12.5 billion estimate for new transformers to serve new loads. In response to questions from The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) about the results of the secondary system analysis, PG&E stated that it would further investigate its

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[15] PCE, *Commute and multi-family EV Charging Needs Analysis: Level 1 or Level 2 Power Managed Charging Meets the Daily Needs of 94+% of Drivers*: https://www.peninsulacleanenergy.com/wp-content/uploads/2021/09/Determining-the-Appropriate-Level-of-Power-Sharing-for-EV-Charging-in-Multifamily-Properties.pdf.

assumptions.[16] PG&E should reassess and refine its methodology for determining the number of new and replacement transformers on the secondary system and include the results of its investigation in its final EIS Part 2 Report.

E. PG&E Should Update Its Enhanced Demand Flexibility Scenario to Not Assume Perfect Orchestration

PG&E's Enhanced Demand Flexibility scenario analyzed grid constraints on the secondary system and assumed coordinated management, or orchestration, of demand flexibility to alleviate those constraints. This very granular approach optimizes the responses of individual measures (*e.g.,* EV charging, energy storage, heat pumps), but it should be clearly identified as a theoretical approach that has not been demonstrated at scale. Assuming perfectly or highly coordinated responses from these resources is an overly optimistic confidence assumption that ignores the potential that some of them may not respond to pricing or dispatch signals, for instance, which overstates the benefits of orchestration. PG&E should provide additional detail about its orchestration assumptions, including the assumed constructs between PG&E, CCAs, and third parties, and should not assume perfect or overly high coordination of resources.

IV. THE IOUS SHOULD PROVIDE GREATER CLARITY AND MAINTAIN CONSISTENT ASSUMPTIONS FOR THEIR BASE CASE MITIGATIONS

The Draft Reports should be modified to provide greater clarity into the Base Case mitigation measures and to establish consistent assumptions for their Base Cases. The Base Case scenario should reflect a business-as-usual foundation upon which the equity and demand flexibility scenarios are built. Including mitigations beyond business-as-usual in the Base Case makes it difficult to assess the effectiveness of demand flexibility. Applying consistent mitigation assumptions in the Base Case ensures comparability of results across the IOUs.

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[16] EIS Workshop, at 4:08:00.

Both PG&E and SCE incorporated mitigation measures in their Base Cases but did not provide sufficient detail regarding those assumptions to enable a clear comparison with the demand flexibility scenario. PG&E describes its Base Case as mitigated, "meaning that distribution engineers developed low-cost solutions where feasible (*e.g.,* load transfers) and load profiles incorporated existing and future customer behaviors (*e.g.,* evolving TOU rates)."[17] SCE's Draft Report includes tables detailing the total number of mitigation projects, which are capital investments in distribution grid upgrades and new equipment, but do not include details for any non-capital-related mitigation measures.[18] SDG&E describes its Base Case as business-as-usual and appears to rely solely on the energy consumption forecast from the 2023 Integrated Energy Policy Report, without additional mitigation.[19]

The IOUs should provide details about the assumptions used in their Base Cases, as they serve as the foundation for evaluating the results of the other scenarios. The IOUs should also align the assumptions for their Base Cases to the extent possible, enabling a comparison of the effectiveness of the mitigation measures across the IOUs and supporting fair and equal treatment of all customers.

V. SCE AND SDG&E SHOULD INCLUDE THE ESTIMATED DISTRIBUTION RATE IMPACTS OF ELECTRIFICATION LOAD GROWTH

SCE and SDG&E should perform analyses of the estimated distribution rate impacts of electrification, similar to PG&E's analysis in its Draft Report. PG&E's assessment of the potential effects of electrification demonstrated downward pressure on the distribution component of electric rates. The analysis was not intended to forecast electric rates, but rather, to highlight the potential benefits of electrification on utility rates. Requiring SCE and SDG&E to perform a similar analysis could further inform the California Public Utilities Commission's (Commission) expectations for the

17 PG&E Draft Report, at 37.
18 SCE Draft Report, at 7.
19 SDG&E Draft Report, at 5-6.

range of possible downward pressure on distribution rate and help quantify the potential savings related to electrification growth in each service territory.

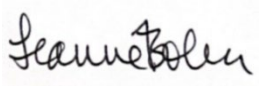
VI. SCE AND SDG&E SHOULD INCLUDE DESCRIPTIONS OF THEIR PLANS FOR IMPROVING THEIR METHODOLOGIES FOR MODELING THE SECONDARY SYSTEM

SCE's and SDG&E's EIS Part 2 Reports should include descriptions of plans for improving their methodologies for modeling the impacts of electrification and DER growth on the secondary system. PG&E's Draft Report includes an innovative and detailed analysis of the effects of electrification on the secondary system. The methodology PG&E developed enabled it to enhance the accuracy of its secondary system modeling, allowing for more detailed assumptions for new or upgraded transformers to serve new loads. While it is unreasonable to expect either SCE or SDG&E to develop or adopt a similar framework for their final EIS Part 2 reports, due January 28, 2026, they should each include a discussion of future enhancements for modeling secondary system impacts and costs to better inform future distribution planning efforts.

VII. CONCLUSION

For all the foregoing reasons, CalCCA respectfully requests consideration of the comments herein by the Commissions and the IOUs in their final EIS Reports and looks forward to an ongoing dialogue with the Commission and stakeholders.

Respectfully submitted,



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