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Exhibit No.: SC-02
Witness: John D. Wilson

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Advance
Demand Flexibility Through Electric Rates

Rulemaking 22-07-005

Reply Testimony of
John D. Wilson

On Behalf of
Sierra Club

June 2, 2023

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ATTACHMENTS

I. Introduction and Summary

Q Please update your name, occupation, and business address.

A My name is John D. Wilson. I am Vice President at Grid Strategies, LLC. My business address is Bethesda, MD.

Q Are you the same John D. Wilson who provided opening testimony on behalf of Sierra Club in this proceeding?

A Yes.

Q Please summarize the scope of your reply testimony.

A My testimony responds to party proposals for an income-graduated fixed charge ("IGFC") for residential rates for all investor-owned electric utilities in accordance with Assembly Bill ("AB") 205, incorporating AB 205's requirements to maintain California Alternate Rates for Energy ("CARE")-exempted charges and create bill savings for low-income customers. Specifically, I respond to testimony from the following parties:

- Bear Valley Electric Service
- California Environmental Justice Alliance ("CEJA")
- California Public Advocates Office ("Cal Advocates")
- Joint Large Investor-Owned Utilities ("Joint IOUs")
    - Pacific Gas & Electric ("PG&E")
    - San Diego Gas & Electric ("SDG&E")
    - Southern California Edison ("SCE")
- Liberty Utilities ("Liberty")
- Natural Resources Defense Council / The Utility Reform Network ("NRDC/TURN")
- PacifiCorp
- Solar Energy Industry Association ("SEIA")

Q What are the key areas of difference among the party rate design proposals?

A Broadly speaking, the key differences in the proposals that address the rates for the large IOUs can be summarized as reflecting three matters.

First, the parties differ in terms of how much weight to put on improving the equity of electric rates as compared to expressing concerns about issues with grid defection or revenue impacts related to misclassification of customers. My proposal, on behalf of Sierra Club, is far more focused on improving the equity of electric rates than nearly all the proposals, except perhaps the CEJA proposal.

In contrast, SEIA's proposal takes a minimalist approach, with a focus on ease of implementation and minimal impacts on customers with rooftop solar systems.

The proposals of Cal Advocates and the Joint IOUs provide a smaller degree of bill relief to CARE customers and virtually no bill relief to non-CARE customers with below average or moderate income levels.

Second, the parties differ on what costs are appropriate to recover through the income-graduated fixed charge ("IGFC"). The Joint IOUs propose the largest average fixed charge because they interpret AB 205 as allowing distribution costs that are understood to be demand-related to be included in the IGFC revenue requirement. As a result, the Joint IOUs' proposal would do the most to reduce volumetric rates and, in turn, increase bill savings from electrification.

My proposal takes what I believe to be a more reasonable interpretation of AB 205 to exclude costs that vary with demand from the IGFC revenue requirement. Even though the proposals from Cal Advocates, NRDC/TURN, and Sierra Club have smaller average fixed charges than the Joint IOUs, each also significantly improves bill savings from electrification.

CEJA also proposes an interesting and easy-to-understand approach to promoting electrification, which is a fixed charge exemption for customers that disconnect from natural gas service. This proposal should be considered by the California Public Utilities Commission ("Commission") even though it may be out of scope for this phase of the proceeding.

The third difference also relates to improvement in the economic incentive for electrification. My proposal appears to be the only one that adopted the uniform factor (or constant ratio) reduction in rates, whereas other proposals appear to use the equal cents method. I found that the uniform factor method was more effective at incentivizing electrification.

A related point is that to the extent that distribution costs are included in fixed charges, those costs are no longer available to be recovered in time-varying rates, including time-of-use ("TOU"), critical (or variable) peak pricing, or dynamic rates. To the extent that the Commission wishes to provide the maximum possible price signal to customers to conserve energy or shift demand to off-peak periods, including demand-related distribution costs in the fixed charge would constrain those price signals.

Q Please summarize your recommendations, as updated in your reply testimony.

A I recommend that the Commission adopt five income tiers of progressively larger fixed charges.

I recommend that the IGFC revenue requirement include all costs that do not vary with consumption, except for the Power Cost Indifference Adjustment ("PCIA").

I recommend that the fixed charge include no costs for the lowest tier, solely marginal customer access costs for the second lowest tier, and a progressive distribution of customer access costs, non-marginal distribution costs, and seven non-bypassable charges for the remaining three tiers. The resulting reduction in volumetric rates should be calculated using the uniform factor method.

To support the zero-dollar fixed charge for the lowest tier of customers, which I propose to be CARE/Family Electric Rate Assistance ("FERA") customers, I recommend that a portion of CARE discount funding is used.

I recommend that the Commission adopt a service line discount and surcharge to further remedy inequitable cost allocations between small (shared service line) and larger (dedicated service line) customers.

In response to testimony filed by the Joint IOUs and Cal Advocates, I recommend that the income verification process should be the responsibility of a third party contracted directly by the Commission. The specific process for income verification should be developed after the Commission obtains evidence from an expert on the Fair Credit Reporting Act in order to determine whether a credit agency such as Equifax could provide the necessary information for income verification.

If necessary, the Commission should set a default bracket at a level that is close to the average fixed charge for the utility. After a period of time, the default bracket should be raised until reaching the highest approved IGFC level.

Q Please summarize your findings.

A My testimony finds that a progressive fixed charge rooted in fixed costs is on average about $28 in PG&E territory, $37 in SCE territory, and $36 in SDG&E territory. It finds that it is possible and equitable to include a zero-dollar fixed charge for the lowest income tier, guaranteeing lower bills for low-income customers given the same consumption. It finds that there is a level of fixed charge that will provide bill relief for low-income customers and lower volumetric rates to reward electrification while keeping costs that vary with electric usage in volumetric rates and also maintaining a substantial conservation and energy efficiency incentive. Last, it finds that implementing an IGFC requires the Commission to be thoughtful in setting income thresholds to fairly achieve equity and electrification goals in different geographic settings.

II. Impacts of IGFC Proposals on Equity, Electrification, and Energy Efficiency

A. Only Sierra Club's Proposal Guarantees Lower Average Monthly Bills for Low-Income Ratepayers

Q Which proposal achieves the lowest average monthly bills for low-income ratepayers?

A My proposal stands out as having a sharply more progressive impact than the other detailed rate design proposals. This is because my proposal has a zero-dollar IGFC for CARE/FERA customers, and a low IGFC for non-CARE customers with below average income. The result is that most California customers would have substantially lower average monthly bills if my proposal is adopted.

Q What are anticipated bill impacts on low-income ratepayers for the party proposals?

A As shown in Figure 1, the proposals of the Joint IOUs and NRDC/TURN reduce bills for CARE/FERA customers by 11% to 16%. (See Section IV.B for an explanation of each party's proposed brackets.) In contrast, the proposals from Cal Advocates and SEIA reduce bills for those customers by 3% or less.

My proposal, on behalf of Sierra Club, is the only proposal to provide a substantial bill reduction (19%) for non-CARE/FERA customers with below-average incomes. Electric affordability is an issue that affects not only CARE/FERA customers, but a wider segment of the population affected by elevated cost of living in California.

For example, as shown in Figure 1, households with incomes up to $150,000 would receive a 13% bill reduction under my proposal (Bracket 3) but only a 6% bill reduction under the Joint IOUs' proposal (Bracket 3) or a 2% bill reduction under the NRDC/TURN proposal (Bracket 2). Overall, my proposal has a much stronger impact on bill equity as illustrated in Figure 2.[1]

[1] These figures are based on data from each party's Fixed Charge Tool.

Figure 1: Bill Impacts of IGFC Proposals by Bracket (SCE Inland Non-NEM TOU-D-4-9 Customers)

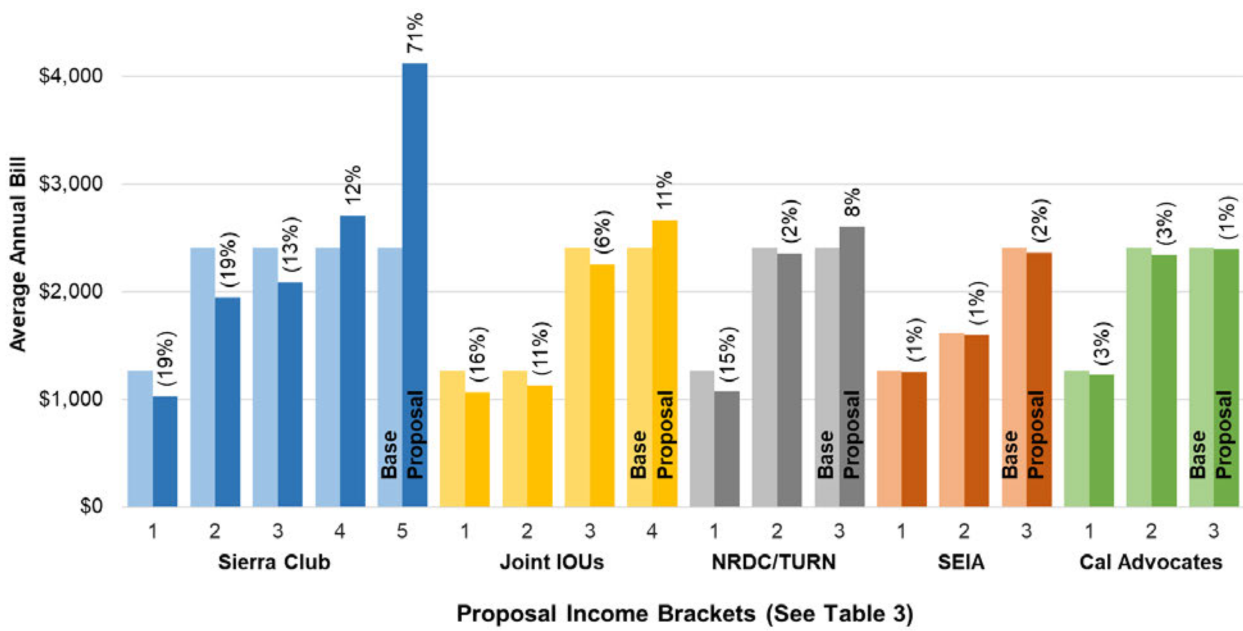
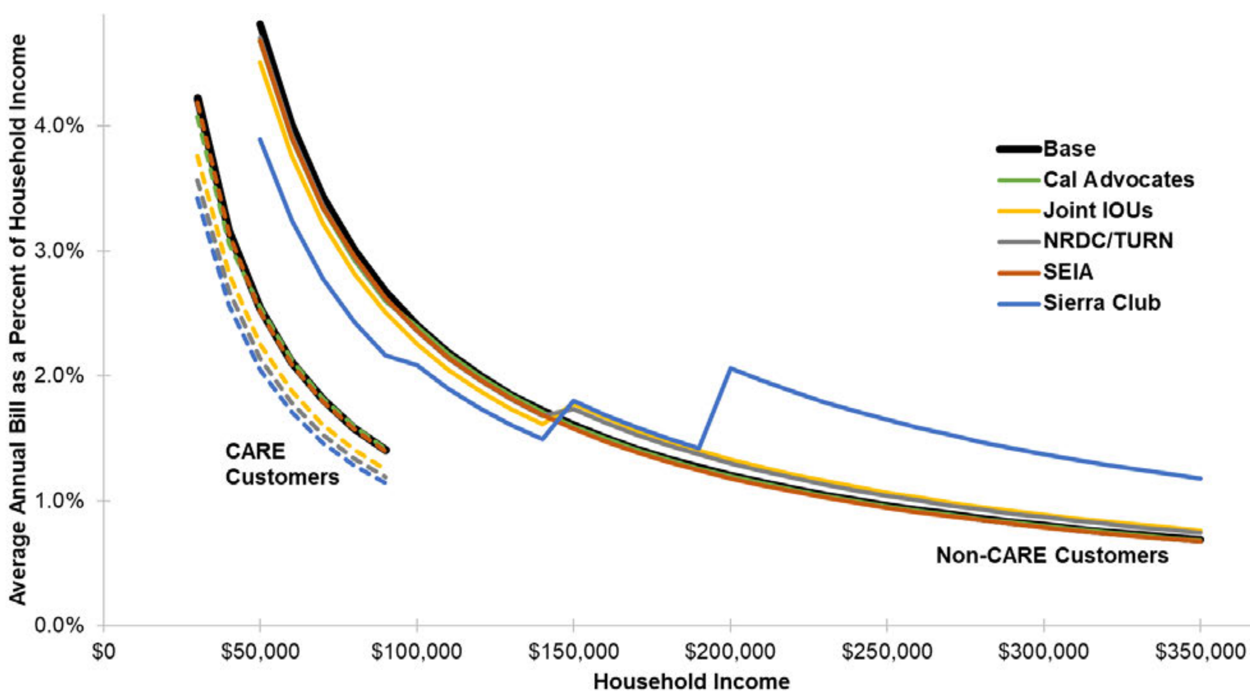


Figure 2: Progressive Impact: Progressivity of Proposed IGFC on Bills Relative to Household Income[2] (SCE Inland Non-NEM TOU-D-4-9 Customers)



[2] Bill impacts are for an average Non-Net Energy Metering ("NEM"), bundled customer, from the Fixed Charge Tool. PG&E: E-TOU-C, Inland (Zone X). SCE: TOU-D-4-9, Inland (Zone 9). SDG&E: TOU-DR1, Coastal.

B. Most Proposals Provide Increased Incentives for Electrification

Q Did the proposals differ in terms of impacts on electrification?

A All parties that provided electrification impact analyses reached similar conclusions regarding the impacts of their proposals on the economic incentives for electrification. In general, if a proposal included substantial average fixed charges, then the resulting volumetric rate reduction resulted in substantial monthly energy bill savings due to electrification. Only SEIA's proposal offered little economic incentive for electrification.

NRDC/TURN's testimony agreed with my testimony that the fixed charge tool's estimates of natural gas and gasoline costs could be considered too low, and that benefits of electrification would be greater under higher price forecasts. Both testimonies also demonstrated that the electrification incentives would be greater for low-income customers than for moderate income customers.

CEJA's proposal also addressed electrification, with an interesting proposal to provide a fixed charge discount to customers who have disconnected from the gas system.

Q What is your opinion of CEJA's gas-disconnection proposal?

A CEJA's proposal has merit. Mr. Siegele's testimony observes that the U.S. Energy Information Administration's 2020 Residential Energy Consumption Survey finds that "88% of homes in California receive natural gas service."[3] CEJA's proposal is that customers who disconnect from the gas system with annual household income below $500,000 would receive a 100% discount on fixed charges, and customers with higher incomes would receive a 50% discount on fixed charges, and the discount would be phased out between 2030 and 2035.[4] It does not appear that this aspect of CEJA's proposal was modeled using the Fixed Charge Tool.

[3] Prepared Track A Opening Test. of Tyson Siegele on Behalf of the Cal. Env't Just. All. in R.22-07-005, The Order Instituting Rulemaking to Advance Demand Flexibility Through Elec. Rates at 32 [hereinafter "Ex. CEJA-01"]. However, PG&E and SDG&E report at least 25% of their customers are electric-only. *Id.* at 33.
[4] Ex. CEJA-01 at 33-34.

California has a variety of programs designed to incentivize electrification. However, CEJA's proposal would provide a very clear and simple incentive to customers to undertake the complex task of fully electrifying. For that reason, it should be considered.

A gas disconnection fixed charge discount would be complex to implement. The electric utilities probably do not have an accurate record of which customers are currently connected to the natural gas system, as Mr. Siegele's testimony indicates.[5] Considering these limitations and challenges, I recommend that the Commission open a new phase in this proceeding to consider this proposal and any related broad-based electrification incentive concepts. As an alternative, the Commission could consider other open proceedings or opening a new rulemaking to consider CEJA's proposal.

III. Differences in Proposals' Cost Categories

Q Please compare your recommendations on the recovery of costs through the IGFC with those of other parties, as categorized in the Fixed Cost Tool.

A I compare my recommendations with those of several other proposals in Table 1. The proposals I include in this table are those that provide specific support for the cost elements included and excluded from their proposal. Other proposals that took a more general approach to this topic are not included in this comparison.

I have re-ordered and simplified the list of elements (as compared to the Fixed Charge Tool) to highlight similarities and differences.

[5] Ex. CEJA-01 at 33. *See* FN 39 for relevant details.

Table 1: Inclusion of Cost Components in Proposed IGFC Revenue Requirement

Cost Component	Sierra Club	Cal Advocates	Joint IOUs	NRDC/ TURN	SEIA
Generation					
PCIA	Eligible but exclude	Exclude	Eligible but exclude	**Include**	Ineligible
Marginal Energy	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
Marginal Generation Capacity	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
Non-Marginal Generation	Ineligible	Ineligible	Ineligible	Eligible but exclude	Ineligible
Distribution					
Marginal Customer Access	**Include**	**Include**	**Include**	**Include**	**Include**
Marginal Demand Distribution Costs (elements vary by utility)	Ineligible	Ineligible	**Partially included for SDG&E via proposed EIA**	Ineligible	Ineligible
Marginal Distribution Capacity – New Business (PG&E)	Ineligible	Ineligible	**Include (PG&E)**	**Include**	Ineligible
Non-Marginal Distribution	**Customer access portion**	**EPMC portion**	**Include**	**Outcome-based portion**	Ineligible
Transmission	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
Line Items[6]					
Public Purpose Programs (SGIP)	**Include**	**Include**	**Include**	**Include**	Ineligible
Public Purpose Programs - Not CARE Exempt	**Include**	**Include**	**Include**	**Include**	Ineligible
Residential CARE Contribution	**Include**	**Include**	**Include**	**Include**	Ineligible
Wildfire Fund Charge	**Include**	**Include**	Ineligible	Ineligible	Ineligible
Wildfire Hardening Charge	**Include**	**Include**	Ineligible	**Include**	Ineligible
Nuclear Decommissioning	**Include**	Exclude	**Include** except for SCE	**Include**	Ineligible
Competition Transition Charge	**Include**	Exclude	Ineligible	Ineligible or exclude	Ineligible
Energy Cost Recovery Account	**Include**	Exclude	Ineligible	Ineligible or exclude	Ineligible
Total Rate Baseline Adjustment	**Include**	Exclude	Ineligible	Ineligible or exclude	Ineligible
Reliability Services	Ineligible	Ineligible	Ineligible	Ineligible or exclude	Ineligible
New System Generation / Local Generation Charge	Ineligible	Ineligible	**Include** except for SCE	**Include**	Ineligible
EIA - Electrification Incentive Adjustment	Ineligible	Not addressed	**Include (SDG&E)**	Not addressed	Ineligible

Q Does Cal Advocates include only those costs that do not vary with electricity consumption uniformly across all cost components?

A No, there are two areas in which Cal Advocates departs from this principle. First, Cal Advocates includes a portion of non-marginal distribution costs in the IGFC. I will discuss this point below.

Second, Cal Advocates only includes certain non-bypassable charges ("NBCs") in the IGFC. Cal Advocates does not explain whether it excluded some NBCs as a matter of preference or due to application of some standard. In a footnote, Cal Advocates acknowledges the distinction, as follows.

> [NBCs as] defined by the NEM 2.0 decision (D.16-01-044). A more expansive list was established for purposes of developing economic development rates.[7]

Q What are the most significant ways that party proposals fail to exclude all costs that vary with electricity consumption from their proposals?

A There are three ways that other parties' proposals include costs that vary with electricity consumption in their proposals.

- The Joint IOUs and several other parties, including Cal Advocates, misinterpret AB 205, which defines fixed utility costs as those "that do not vary with electricity consumption," to only exclude costs that clearly vary with energy use, and to include costs that vary with electricity demand, which is a form of consumption. PG&E specifically includes marginal distribution – new business costs, currently calculated on a customer usage basis ($/kW), in its proposed monthly customer charge.
- NRDC/TURN structure their proposal around a narrow definition of which costs should be collected in volumetric rates, with most of the remainder collected in their proposed fixed charge.
- Liberty and the Joint IOUs err in proposing to recover costs related to generation assets that are currently providing energy or capacity resources to customers through their respective fixed charge proposals.

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[6] I have omitted the GHG Allowances credit from Table 1. Please see FN 37 in my opening testimony, Exh. SC-01E. I have omitted the offsetting Recovery Bond Charge and Credit from this summary since most parties do not discuss them.

[7] Errata on Prepared Test. on Rulemaking to Advance Demand Flexibility Through Elec. Rates – Income Graduated Fixed Charge Rate Design at 8, FN 22 [hereinafter "Ex. Cal Advocates-01-E"]; Prepared Direct Test. of R. Thomas Beach on behalf of the Solar Energy Indus. Ass'n at 15 [hereinafter" Ex. SEIA-01"].

Q Please explain how the Joint IOUs and Cal Advocates misinterpret AB 205.

A The Joint IOUs expand the scope of costs that may be collected through the IGFC by claiming that the law refers to "costs that do not vary volumetrically." The concept of volumetrically varying costs is not stated explicitly in AB 205. Rather, in Section 14(a), there are two references to volumetrically varying rates.

Of course, rates and costs are entirely different concepts. But by construing the concern about volumetrically varying rates to apply to costs, the Joint IOUs arrive at a definition of fixed costs that I do not find in AB 205. Specifically, the Joint IOUs' testimony states,

> [AB 205's] amendments to Public Utilities Code § 739.9 now allow the CPUC to take the next step in needed residential electric rate reforms, by collecting through a set IGFC costs that do not vary volumetrically or are more equitably collected in a fixed charge.[8]

As reviewed above, both energy- and demand-related costs clearly "vary with electricity consumption," as stated in AB 205 section 14(a)(4), and neither type of cost should be included in a fixed charge.

In its reply comments on the staff proposal for updated rate design principles, SCE appears to agree with my understanding that fixed charges should not recover costs that vary with changes in consumption or demand, as follows:

> The additional proposed language for Principle 3 is consistent with the fundamental proposition that rate designs should be structured to reflect the underlying nature of the costs being recovered. As a conceptual matter, if rates are designed to (i) recover costs that do not vary with changes in consumption or demand through fixed charges, and (ii) recover costs that vary with changes in consumption or demand through volumetric or demand charges, then cost shifts should not occur even though a rate may be designed to encourage efficiency.[9]

Yet, the Joint IOUs and Cal Advocates proposals allow for recovery of non-marginal distribution costs through the IGFC.[10] In support of this proposition, the Joint IOUs identify a list of costs that they claim "are not driven by a customer's usage." While it may be true

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[8] Joint Test. of S. Cal. Edison Co., Pac. Gas and Elec. Co., and San Diego Gas & Elec. Co. (the Joint IOUs) Describing Income-Graduated Fixed Charge at 2 [hereinafter "Ex. Joint IOUs-01-E"].

[9] Reply Comments on S. Cal. Edison Co. (U 338-E) on Scoping Memo's Questions for Party Comment at 2 (Jan. 4, 2023).

[10] Ex. Joint IOUs-01-E at 39; Ex. Cal Advocates-01-E at 8-9.

that many of these costs vary more with demand than with volume, demand is a measure of usage. For example, the cost of "reliability improvements" would be lower on a system with lower demand. Similarly, vegetation management requires clearing right-of-way to varying widths depending on, among other factors, the voltage of the transmission or distribution line, which is in turn determined by customer demand served by those facilities.

There may be some program or other costs that are collected through distribution rates that are truly not driven by customer usage. Without supporting evidence and assurance that accounting practices adequately track such costs independently, including those costs in the IGFC appears inconsistent with AB 205.

Cal Advocates provides a less specific rationale for recovering non-marginal distribution costs through the IGFC, and tempers it by suggesting including only those costs resulting from scaling the marginal customer access costs ("MCACs") by the equal percentage of marginal cost ("EPMC"). Cal Advocates justifies this particular approach by referencing D.21-11-016, which found that future residential fixed charges no longer needed to "comply with cost category and EPMC determinations" made in D.17-09-035.[11] However, the prior difficulty with applying the EPMC to MCACs was based on D.17-09-035's finding that "there is no separate EPMC scaling process that includes customer related costs only."[12]

As shown in my opening testimony, it is possible to estimate (with reasonable accuracy) non-marginal customer-related distribution costs. In Table 2, I provide a comparison of the percentage of non-marginal distribution costs included in Cal Advocates' EPMC-based approach with the factors I developed using Federal Energy Regulatory Commission ("FERC") Form 1 costs. In the case of PG&E and SDG&E, Cal Advocates' proposed method would likely recover all customer-related as well as some demand-related non-marginal distribution costs through the IGFC. In the case of SCE, Cal Advocates' proposed method would likely *under*-recover non-marginal customer-related distribution costs through the IGFC. Applying the EPMC scalar to MCACs is less accurate and unnecessary; the method I propose should be adopted until a superior method becomes available.

[11] Ex. Cal Advocates-01-E at 9; Decision Adopting Marginal Costs, Revenue Allocation, and Rate Designs for Pac. Gas and Elec. Co., D.21-11-016 at 114 (Nov. 18, 2021) [hereinafter "D.21-11-016"].
[12] D.21-11-016 at 113.

Table 2: Non-Marginal Customer Access Cost (NMCAC) Factors

Utility	NMCAC Factor[13]	Cal Advocates EPMC-based Factor
PG&E	19.93%	32.48%
SCE	45.79%	23.50%
SDG&E	39.84%	44.83%

As discussed in my opening testimony, it is unreasonable to collect *all* non-marginal demand distribution costs through the fixed charge. The Joint IOUs' expansion of statutory language is compounded by the guilt-by-association treatment of these costs (the list of costs claimed to be "not driven by a customer's usage"). Much of the non-marginal distribution costs represent continuing cost recovery for facilities whose costs both the Joint IOUs and Cal Advocates agree should be excluded from the IGFC when calculated on a marginal cost basis.[14]

Another concern is that the Joint IOUs' proposal to include all non-marginal distribution costs in a fixed charge provides an opportunity for the utilities to increase their already high average fixed charge substantially in future rate cases. The potential for the fixed charge to increase substantially in the future could undermine any findings the Commission might reach regarding impacts on low-income or low usage customers. The earnings incentive for utilities to build out distribution infrastructure would be perversely compounded if those costs are included in the fixed charge by disincentivizing customers from investing in distributed energy resources.

Q Do any of the Joint IOUs propose to collect marginal demand distribution costs through the IGFC?

A Yes, SDG&E and PG&E make different proposals to recover a portion of those costs through the IGFC.

SDG&E's proposed Electrification Incentive Adjustment ("EIA")[15] would effectively collect an unconstrainted portion of marginal demand distribution costs through the fixed

[13] Errata Direct Testimony of John D. Wilson on behalf of Sierra Club at 28, Table 1 [hereinafter "Ex. SC-01E"].
[14] PG&E's proposal to include new business in its IGFC is the only exception.
[15] Prepared Opening Test. of Gwendolyn R. Morien on behalf of San Diego Gas & Elec. Co. Chp. 1 – Rate Design & Cost Recovery Errata at GRM-3 to GRM-7 [hereinafter "Ex. SDGE-01-E"]. PG&E supports the EIA proposal for potential future use. Pac. Gas and Elec. Co. Elec. Rates Demand Flexibility Order Instituting Rulemaking Errata Test. (Clean Version) PG&E Specific Implementation of Income Graduate Fixed Charge at 1-3 [hereinafter "Ex. PG&E-01-E"].

charge. Because other costs not already included in the IGFC are NBCs that the Joint IOUs consider to be statutorily or contractually ineligible, the only costs that SDG&E would recover through its proposed EIA are marginal demand distribution costs. In effect, the EIA is an artifice for recovering marginal demand distribution costs through the IGFC. This "new rate component" is justified on the basis of reducing volumetric rates to incentivize beneficial electrification and is explicitly not cost-based and not proven to be unrelated to customer usage.[16]

I also note that the Joint IOUs testimony is unclear as to whether PG&E and SCE might also utilize the EIA mechanism in future rate case applications. Their proposed EIA mechanism further compounds a lack of constraint on future fixed charge proposals..

PG&E also proposes that its "Distribution – MDCC Primary New Business costs" should be recovered through the fixed charge. These costs are distinct from marginal customer access costs and reflect the distribution system costs that are incurred when new load is connected (new customers or expanded loads at existing customers). PG&E supports including this cost element on the same basis as the non-marginal distribution costs are included—resting on the assumption that volumetric rates can only contain volumetric costs, and that demand costs must therefore be included in the IGFC. As discussed in my opening testimony, each IOU determines its cost responsibility for system extensions using new construction *loads*, not number of new customers, as acknowledged by PG&E's statement that its new business costs are "based on required load."[17] PG&E's proposal should be rejected as these costs are clearly related to customer usage.

Q What other parties argue for including demand-related distribution costs in fixed charges?

A Other parties that also argue for including demand-related distribution costs in fixed charges include Bear Valley, Liberty Utilities, PacifiCorp, and NRDC/TURN. Liberty and PacifiCorp's testimonies provide similar reasons for this position as the Joint IOUs.[18] Bear

[16] Ex. Joint IOUs-01-E at 40-41.
[17] Ex. PG&E-01-E at 1-1.
[18] Liberty Utils. Before the Cal. Pub. Utils. Comm'n Test. at 3 [hereinafter "Ex. Liberty-01"]; PacifiCorp Direct Test. of Robert M. Meredith at 6 [hereinafter "Ex. PAC/100"].

Valley does not provide statutory support for its proposal on cost components, but rather argues that a "straightforward design" will be easier and more understandable.[19]

Q Does the NRDC/TURN proposal argue that demand-related distribution costs are unrelated to customer usage?

A Although the NRDC/TURN proposal identifies some demand-related distribution costs as eligible for residential fixed charges, the testimony doesn't take a clear position on whether or not these costs are related to customer usage.

Instead, NRDC/TURN's proposal seems to include these costs as an effect of narrowing the scope of costs that should be collected on a volumetric basis. NRDC/TURN's proposal starts with the ideal that volumetric rates should be set at the short-run social marginal cost ("SRSMC"),[20] but recommends a "rate design that meaningfully reduces the gap between SRSMC and current rates [as] a reasonable starting place.[21]

Q Are there other problems with the NRDC/TURN proposal on how to set the costs that are included in the IGFC?

A Yes. Instead of adopting a cost-based fixed charge. NRDC/TURN recommend setting the average fixed charge at $36 per month ($47 for electrification rates).[22] To achieve this outcome, their proposal varies the percentage of non-marginal distribution costs that should be included in the customer charge.

There are four problems with NRDC/TURN's outcome-based standard for residential fixed charges. First, depending on the desired fixed charge, this standard could include all non-marginal distribution demand costs, some of which vary with customer usage (demand).

Second, because NRDC/TURN's proposal starts with including SRSMCs in the volumetric rate and then including the remainder, if feasible, in the IGFC, their proposal disregards the

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[19] Opening Test. of Bear Valley Elec. Service, Inc. (U 913 E) Providing Income-Graduated Fixed Charge Proposal at 3 [hereinafter "Ex. BVES-1"].
[20] Opening Test. of Mohit Chhabra and Sylvie Ashford, Sponsored by The Nat. Res. Def. Council and The Util. Reform Network Addressing Options for an Income-Graduated Fixed Charge at 7 [hereinafter "Ex. NRDC-TURN-01"]. The proposal defines cost categories for inclusion in a fixed charge as those categories that do not "meet the strict definition of SRSMC or are included in ACC_M." *Id.* at 19.
[21] Ex. NRDC-TURN-01 at 17
[22] Ex. NRDC-TURN-01 at 20.

statutory requirement to exclude costs that vary by customer usage. Specifically, their testimony argues that non-marginal generation costs and the New System Generation Charge ("NSGC")/Local Generation Charge ("LGC") are "sunk costs" and therefore "candidates for inclusion in a fixed charge."[23] As discussed in my opening testimony, this aspect of NRDC/TURN's proposal is contrary to statute.

Third, this standard is not cost-based. There is no cost-based reason that the average fixed charge should be identical across all Joint IOUs. This approach violates updated Electric Rate Design Principle 3, "[r]ates should be based on cost causation,"[24] without being justified by advancing some other rate design principle. The principle of cost-causation incorporates the fact that some loads are more expensive to serve than others into volumetric pricing. Reflecting those differences in the cost of service in rates provides pricing signals that help align the cost of service with the value that customers place on that service. NRDC/TURN's proposal to use identical average fixed charges results in different relationships between the cost of service and the resulting volumetric rates across the three IOUs. Without a principled reason to implement price discrimination among the IOUs, the proposal should be rejected.

Fourth, as a non-cost-based rate, it is unclear how (if at all) NRDC/TURN's proposal would allow for updates to the IGFC in future general rate cases ("GRCs"). I agree with the Joint IOUs that, "fixed charges must be allowed to change over time" because the entirety of several costs and charges are collected through the fixed charge, "all of which have varying revenue requirements over time."[25] If NRDC/TURN's proposed cost percentages are used instead of the static fixed charge that they propose, the Commission runs the risk of too large fixed charges from increased distribution spending, similar to risks in Cal Advocates' and the Joint IOUs' proposals.

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[23] Ex. NRDC-TURN-01 at 21.
[24] Cal. Pub. Utils. Comm'n, *Decision Adopting Elec. Rate Design Principles and Demand Flexibility Design Principles*, D.23-04-040 at 2 (Apr. 27, 2023) [hereinafter "D.23-04-040"].
[25] Ex. Joint IOUs-01-E at 45.

Q Should the Commission allow recovery of generation-related costs that are currently providing energy or capacity resources to customers in the IGFC?

A No, the Commission should reject both proposals to recover generation-related costs related to assets that are currently providing energy or capacity resources.

First, the Commission should reject Liberty's proposal to recover generation-related costs for solar facilities in the residential fixed charge. Liberty's argument that "[the] two facilities reduce the overall amount of energy Liberty must purchase from NV Energy"[26] could be applied to the costs of every solar, wind, hydroelectric, and geothermal plant that serves California load. This is clearly contrary to AB 205.

Similarly, the Joint IOUs argue that the NSGC/LGC fund "essential generation reliability resources procured per state policy requirements."[27] It is not clear to me how the Joint IOUs distinguish this charge from marginal generation capacity costs; the Joint IOUs state that "[w]hile MGCCs do not strictly vary according to volumetric usage, they are more appropriately recovered through time-varying [volumetric] rate designs."[28]

As I discussed in my opening testimony, the NGSC/LGC is one of only three non-bypassable charges that I recommend excluding from the IGFC and retaining in volumetric rates. It differs from most other non-bypassable charges because the costs are incurred to procure capacity to ensure reliability on behalf of all customers. Since the amount of capacity required for reliability purposes varies from customer to customer, and as each customer's requirements may vary over time, it is a cost that varies based on consumption, and should not be included in an IGFC. Together with the EIA mechanism, the Joint IOUs effectively propose a system that would make all costs, other than marginal generation costs and a few NBCs, eligible for recovery through the fixed charge.

On the other hand, the Joint IOUs and I come to similar conclusions regarding the Power Cost Indifference Adjustment ("PCIA"). Both testimonies recognize that the PCIA exhibits have significant variation in annual cost, and that the variation is unrelated to usage. As such, both testimonies suggest that the PCIA is eligible for recovery through an IGFC. The Joint IOUs do not provide a reason for maintaining PCIA revenue recovery as a volumetric

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[26] Ex. Liberty-01 at 3.
[27] Ex, Joint IOUs-01-E at 40.
[28] *Id.*

charge.[29] My testimony recommends that it remain a volumetric charge because including it in a cost-based fixed charge could result in a highly variable charge.

NRDC/TURN explore similar themes but conclude that the PCIA should be included in the IGFC. Notably, NDRC/TURN are the only parties to have pointed out the challenge in dealing with the vintaged basis for the PCIA charge.[30] This seems to me to be another compelling argument for retaining it in the volumetric rate. The Commission should reject NRDC/TURN's proposal.

Q Do any parties raise issues that should be considered in the evaluation of your proposal for determining which cost components are reasonable to include in the IGFC?

A: Yes. My proposal is to collect all non-bypassable charges through the IGFC. The Joint IOUs agree that these charges "would theoretically be better collected through an IGFC than volumetric rates." However, the Joint IOUs argue that statutory and contractual restrictions preclude collecting some of these charges through fixed charges.[31]

Cal Advocates' testimony affirms at least one of these restrictions, noting that according to their discussions with the Joint IOUs, securitized costs may not be collected in a fixed charge under securitized agreements. To the extent necessary, I support using the work-around proposed by Cal Advocates to collect a portion of distribution costs through the IGFC in an amount equal to total securitized costs.[32] I also support using the same work-around for any other similarly restricted cost.

Q Should the Commission include all reasonable cost components in the IGFC?

A In my opening testimony, I argued that the Commission should include all cost elements other than the PCIA that *could* be included in the IGFC. The Commission has adopted Rate Design Principle #4 to state:

> Rates should encourage economically efficient (i) use of energy, (ii) reduction of greenhouse gas emissions, and (iii) electrification.[33]

[29] Ex. Joint IOUs-01-E at 41.
[30] Ex. NRDC-TURN-01 at 21.
[31] Ex. Joint IOUs-01-E at 40.
[32] Ex. Cal Advocates-01-E at 11.
[33] D.23-04-040 at 2.

As noted in the staff guidance for Phase 1 Track A, "[b]y shifting a portion of [investor-owned utilities'] cost recovery to fixed charges, volumetric rates will be lower, which will increase bill affordability and encourage residential customers to adopt electrification measures."[34] A reasonable fixed charge can help California achieve its energy, climate, and electrification goals while still protecting incentives to conserve energy and reduce and shift load through distributed energy resources ("DERs").

SEIA's proposal stands as the most significant contrast to this perspective. SEIA argues that a fixed charge that includes only marginal customer access costs would meet statutory requirements.[35] I agree that SEIA's proposal meets most statutory requirements.[36]

I disagree however with SEIA witness Mr. Beach's testimony on a couple of technical points. First, while I agree with him that the EPMC scalar should not be applied to marginal customer access costs, I found that it is reasonable to collect embedded customer access costs as part of the fixed charge. In this respect, I recommend the Commission give more weight to its cost-causation principle than its marginal-cost principle in deference to the goals of AB 205.

Second, for reasons set out in my opening testimony, I disagree with Mr. Beach's statement that generation-related costs are *always* caused by customers' use of energy and capacity.[37] Neither of these technical disagreements affect my view that SEIA's proposal is compliant with statutory requirements.

Nonetheless, SEIA's proposal does not reflect the statutory intent to revise rates in a manner that more aggressively pursues California's electrification and equity goals. Mr. Beach states that SEIA's proposal "will provide a modest encouragement to electrification," without supporting data.[38] He then goes on to argue that other methods to encourage electrification are more effective. With respect to equity goals, Mr. Beach's

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[34] Cal. Pub. Utils. Comm'n Energy Div. Staff, Phase 1 Track A: Income-Graduated Fixed Charge Guidance Memo at 1 (Jan. 17, 2022) [hereinafter "Phase 1 Track A: Staff Guidance Memo"].
[35] Ex. SEIA-01 at 13-14.
[36] Mr. Beach argues that "residential customers require similar facilities and services to access the electric system, and thus customer access costs do not vary substantially between small and large residential customers." Ex. SEIA-01 at 35. For reasons set out in my opening testimony, this assertion is factually incorrect. My proposal includes cost-based differences between multifamily and single-family service costs to comply with Pub. Util. Comm'n Section 739.9(d)(1).
[37] Ex. SEIA-01 at 18.
[38] Ex. SEIA-01 at 30.

testimony argues that SEIA's proposal would have "generally modest reductions" in rates for low-income customers.[39] By modest, Mr. Beach is referring to bill savings that are generally $3 per month or less. While SEIA's proposal may not worsen the circumstances for very many low-income customers, it won't improve them, either. Assuming the Commission agrees that it must (or should) adopt substantial changes to rate design to better achieve AB 205 goals, then SEIA's proposal should be rejected.

IV. Differences in Proposal's IGFC Rate Design

A. Design of Volumetric Rates

Q How did other parties' volumetric rate design differ from yours?

A For standard rates, my proposal uses the uniform factor (or constant ratio) method to design the volumetric rates.

Other parties[40] use the equal cents method in their proposals. Cal Advocates "employed the equal cents method because it produced a more even percentage of rate reductions across time of use periods for all three Investor Owned Utilities."[41] Cal Advocates does not explain why a uniform percentage total retail rate reduction is desirable.

The Joint IOUs' testimony explained their approach as follows.

> The Joint IOUs propose to reduce volumetric rates consistent with current rate treatment. For PG&E and SDG&E… the revenue from the IGFC would be applied as an equal cents per kWh reduction in the underlying volumetric rate… For SCE, this means applying the volumetric reduction based on the System Average Percent Change (SAPC) methodology consistent with the method used to perform revenue requirement adjustments for all rate classes.[42]

SCE's testimony does not elaborate on the use of the SAPC method, and the Joint IOUs' Fixed Charge Tool output report uses the equal cents method for SCE, so it is unclear what impact SCE's intent to use the SAPC would have on volumetric rates. PG&E and

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[39] Ex. SEIA-01 at 35.
[40] NRDC/TURN explain that they found little difference between the two methods and did not use any principle or method to choose the equal cents method. NRDC/TURN Data Req. Resp. to Sierra Club, Set 01 (Attach. 2).
[41] Cal Advocates Data Req. Resp. to Sierra Club, Set 01, Question 02 (Attach. 2).
[42] Ex. Joint IOUs-01-E at 44.

SDG&E's testimonies also explain that using the equal cents method is appropriate because "none of the costs proposed to be collected through the fixed charge are currently time-differentiated on these rates."[43]

CEJA argues that the equal cents method is more equitable to low-income customers because the resulting lower differentiation in volumetric tiers recognizes their relatively lower opportunity to shift energy use to different times of the day.[44] While this is reasonable, I believe that other elements of my proposal adequately address equity issues and that volumetric rate design effects should focus on the electrification goals of this proceeding.

While the utilities may have reasonable justification for using the equal cents method, for purposes of what I understand to be a one-time adjustment (until the next GRC Phase 2), I believe the uniform factor method is better aligned with the purposes of this rulemaking. As I discussed in my opening testimony, the uniform factor method results in greater cost savings for electrification activities conducted by customers on standard TOU rates.

B. Definition of Income-Graduated Brackets

Q Please summarize the parties' IGFC brackets.

A In my opening testimony, I proposed five brackets. For each bracket, I proposed a formal definition, a proposed near-term simplification, and an approximation for modeling purposes. In Table 3, I have included only parties' formal definition and do not elaborate on any modeling approximations.

Also, Table 3 focuses on the proposals covering the three large IOUs. Throughout my reply testimony, where I refer to "all party proposals," I am usually referencing the proposals in Table 3, unless the context makes it clear that I am referencing additional proposals.

The IGFC brackets proposed by Bear Valley, Liberty Utilities, and PacifiCorp, which are not included in Table 3, are identical and very similar to that of SEIA. Each takes a

[43] Ex. PG&E-01-E at 1-5. SDG&E uses almost identical language. Ex. SDGE-01-E at 10. PG&E attributes the time-differentiation of distribution rates in TOU tariffs to "Marginal Distribution Capacity Cost – Primary," which remains in the volumetric rate under the utility proposal. PG&E Data Req. Resp. to Sierra Club, Set 03, Question 01. (Attach. 2)
[44] CEJA Data Req. Resp. to Sierra Club, Set 01, Question 02 (Attach. 2).

minimalist approach. The three smaller IOUs propose that CARE customers be split into two brackets, depending on whether they are below or above 100% of Federal Poverty Level ("FPL"). Their third bracket would be all non-CARE customers.[45] I support the proposal of the three smaller IOUs to use these simplified brackets initially. However, once the income verification approach has been proven effective for the large IOUs, the smaller IOUs should be directed to align their income brackets with those of the large IOUs, relying on the same income verification approach.

[45] Ex. BVES-1 at 7; Ex. Liberty-01 at 4; Ex. PAC/100 at 10.

Table 3: Party Proposals for IGFC Brackets

Bracket	Sierra Club	Cal Advocates	Joint IOUs	NRDC/TURN	SEIA[46]
1	*CARE/FERA* Customers enrolled in CARE/FERA programs	*Low-income* Households with less than $50,000 annual income	*Extra Discounted Fixed Charge* CARE households with less than 100% of FPL	*CARE/FERA* Households enrolled in CARE/FERA programs	*CARE* Households enrolled in CARE
2	*Below Average Income* Households with less than 80% AMI	*Middle-income* Households with between $50,000 and $100,000 annual income	*Discounted Fixed Charge* CARE/FERA households above 100% of FPL	*Middle Income* Households with less than $150,000 income, not enrolled in CARE/FERA	*FERA* Households enrolled in FERA, or 1-2 person households with incomes from $36,621 to $46,060
3	*Moderate Income* Households with less than 125% AMI	*High-income* Households with above $100,000 annual income	*(Not named)* Non-CARE/FERA households below 650% of FPL	*Highest Income* Households with more than $150,000 income	*All other customers*
4	*High Income* Households with less than 200% AMI		*(Not named)* Non-CARE/FERA households above 650% of FPL		
5	*Upper Income* Households above 200% AMI				

[46] Ex. SEIA-01 at 20-21.

Q What are the areas of agreement and disagreement among the IGFC bracket proposals?

A In my opening testimony, I explained that in designing IGFC income tiers, I was guided by principles of equity expressed in both AB 205 and the Commission's Electric Rate Design Principles, while being vigilant to ensure that the income tier design did not impair the achievement of other environmental goals. In order to support the design goal of a progressive income-graduated tier system, my proposal includes more brackets, and differentiation at higher income levels than any proposal other than that of CEJA.

All parties (except perhaps CEJA) agree that lowest-income brackets should rely on existing CARE/FERA eligibility standards, including household size considerations. Some parties' proposals segment CARE customers into more than one bracket, whereas my lowest bracket includes all CARE/FERA customers. Parties differ strongly on how much differentiation to include for upper-income brackets. Notably, none of the other proposals include a bracket threshold higher than $150,000.

The IGFC bracket proposals most similar to mine are the Joint IOUs and NRDC/TURN. Both proposals are modeled as having pre-defined CARE/FERA brackets and then dividing non-CARE/FERA customers at the $150,000 annual income level. For implementation purposes, the Joint IOUs would set the actual income level break at 650% of FPL.

The IGFC brackets in my proposal differ more with those proposed by Cal Advocates than with those proposed by the Joint IOUs and NRDC/TURN. Cal Advocates proposes a relatively flat income graduation across its three brackets, as it "anticipates technical limitations on income verification processes."[47] This flat income graduation results in relatively little impact on bill equity, as shown in Figure 1. In support of this approach, Cal Advocates designed its brackets to have roughly equal shares of customers, the top bracket threshold is set at $100,000. However, it is not clear why brackets with roughly equal shares of customers are necessary to achieve this objective.

Both the Joint IOUs and NRDC/TURN argue in favor of minimizing the number of brackets. The Joint IOUs argue that using four brackets "balances customer understandability with a meaningful fixed charge,"[48] while NRDC/TURN prefer just three

[47] Ex. Cal Advocates-01-E at 15.
[48] Ex. Joint IOUs-01-E at 33.

brackets until more precision is provided when the "implementation and income verification process improves."[49] While their objectives are reasonable, I found that five brackets were necessary to increase the progressivity of the IGFC, lower fixed charges for other income tiers, and increase equity.

I also discussed the merits of creating an even higher income bracket because of the emphasis in AB 205 on addressing the equity of California's electric rates. CEJA's analysis probing the viability of even higher income brackets merits the Commission's serious consideration. Because CEJA's proposal focuses on setting income brackets that were not supported by the Fixed Charge Tool, I did not include the CEJA proposal in Table 3, but discuss it below.

Q Do parties' proposals require different information to assign a household to an IGFC tier?

A Every party proposal requires information related to CARE and FERA enrollment. All other proposals, other than SEIA's, require information related to household income. The proposals that rely on FPL or area median income ("AMI") require information on household size. Only my proposal requires information regarding the geographic location of each residential customer, although my proposal allows for temporary use of FPL guidelines during a phase-in period.

Q How do your proposed brackets differ from those of other parties?

A Other than CEJA's proposal, my proposal is most effective at addressing bill equity concerns, as illustrated in Figure 2. First, my upper income bracket would begin with household income around $200,000 (using the modeling approximation). None of the other party proposals include a bracket that begins at that level.

Second, and most importantly, for the reasons set out in my opening testimony I am proposing to use AMI to assign customers to IGFC brackets. As I observed in my opening testimony, the 80% of AMI value for three-person households varies from $56,133 to $134,267 across those 51 areas.[50] While it is reasonable to assign a three-person household

[49] Ex. NRDC-TURN-01 at 23.
[50] Area Median Income by Cnty. (with Comparison to Living Wage) (referencing U.S. Dep't of Hous. and Urb. Dev., *Tables for HUD 30% Income Levels* (Apr. 18, 2022), *available at* https://www.huduser.gov/portal/datasets/il html (Attach. 1).

with an income of $125,000 to a low-income tier in some counties, across much of the state, that would be unreasonable.

In contrast, the Joint IOUs propose to set the threshold between Extra Discounted and Discounted brackets at 100% of FPL, just $23,030. Both brackets would be assigned to CARE/FERA enrolled customers only. Then, for non-CARE/FERA customers, there would also be two (unnamed) brackets, divided at 650% of FPL, or $187,119.

As shown in Figure 3, using the statewide FPL benchmark results in stark geographic inequity. The Joint IOUs' proposed threshold for CARE/FERA customer brackets would range from 14% to 33% of AMI, and their proposed threshold for non-CARE/FERA customer brackets would range from 111% to 267% of AMI.

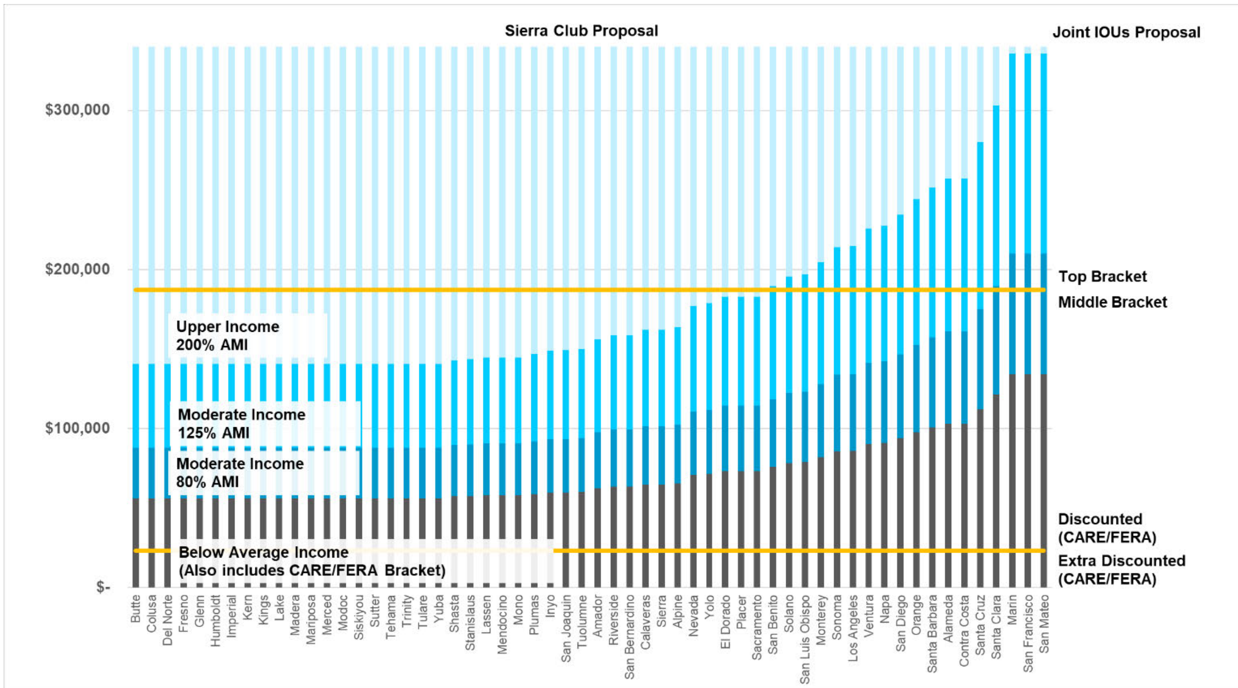
In my view, the Joint IOUs top bracket unreasonably groups some customers making very close to average incomes in their counties with customers making well above average incomes. An IGFC that treats customers identically in a state with as much economic diversity as California runs counter to the intent of AB 205.

To illustrate this point, I compared the bracket thresholds in Sierra Club's proposal to the living wage for a three-person family as calculated using an online tool available from MIT. (*See* Attachment 1). [51] In all but the most affluent counties, such a household (not enrolled in CARE/FERA) would be in the moderate-income bracket in my proposal and assigned a fixed charge of $15-23, depending on IOU service territory. In the four most affluent counties in California, a three-person family with two living wage incomes would fall in the below-average-income bracket, assigned a $7-11 fixed charge. This makes sense, as even someone earning a living wage in those four counties could be struggling to make ends meet.

In contrast, the Joint IOUs' proposal would assign those "living wage" families a fixed charge of $51-73 per month, more than three times larger than Sierra Club's proposal. Even if those "living wage" families qualified for CARE or FERA, they would still pay a higher fixed charge of $20-34 per month. Not only is the Joint IOUs' proposal inflexible across California's diverse economy, but it is clearly inequitable.

[51] Living Wage Calculator, Mass. Inst. of Tech, *available at* https://livingwage mit.edu/ (Attach. 1).

Figure 3: Comparison of Sierra Club and Joint IOUs Proposed Income Brackets, by County[52]



Q What are the merits of the CEJA proposal?

A Cal Advocates and CEJA are the only parties who used a quantitative basis for their IGFC bracket design proposals. Cal Advocates would allocate fairly similar amounts of cost to customers in each of its three brackets. As discussed above, it is not clear why this is important. In contrast, CEJA's ten brackets are designed to capture relatively equal shares of customer income. CEJA's approach results in its *bottom* income bracket threshold being set at $100,000. Similar to my proposal (but somewhat larger in scope), this large group of customers would have a zero-dollar IGFC.

CEJA points out that 78% of California income tax liability is due from returns reflecting over $200,000 in income. While only 8.3% of California tax returns report income of $200,000 or more, Mr. Siegele notes that "assessing the same fixed charge on each [household with an income of $200,000 or more] does not reasonably meet the legislative directive to implement an income graduated fixed charge."[53] Mr. Siegele presents several options for income brackets based on statewide income tax liability data, with his "ideal"

[52] *Id.*
[53] Ex. CEJA-01 at 15.

brackets concentrating cost recovery among customers with household incomes above $500,000.[54]

As a contrast, CEJA's proposal would result in 90% of the fixed charge cost being allocated to the 0.3% of customers in its top two (of ten) brackets—customers whose annual household incomes are greater than $2 million.[55]

Other than the proposals from CEJA and Sierra Club, the highest bracket thresholds are proposed by the Joint IOUs and NRDC/TURN, beginning at $150,000, and other parties propose top brackets that begin with even lower thresholds. With a small number of California tax returns reporting incomes over $5 million but reflecting tax liability of 26% of personal income tax liability,[56] the resulting IGFC brackets designs simply cannot address the equity goals included in AB 205.

In my opening testimony, I pointed out that if the Commission would like to maintain a progressive fixed charge but with lower fixed charges for customers with moderate incomes, it could direct the utilities to reassign a substantial portion of the revenue requirement to the wealthiest Californians by supplementing the five tiers I proposed with an upper-plus income tier. While my proposal demonstrates the most progressivity of proposals modeled using the Fixed Charge Tool (see Figure 2), it does not achieve the level of progressivity that CEJA's proposal represents.

Implementing CEJA's proposal in the short run would be challenging. In order to model even the limited bracket options available in the Fixed Charge Tool, E3 had to rely on the Haas study, which may be inaccurate. Assuming that each IOUs' income distribution matches that from statewide data would be even more inaccurate. This could result in a significant problem with under- or over-recovery of fixed charges and volumetric rates, requiring substantial true-ups until charges and rates are successfully re-aligned. If there are substantial swings in either volumetric or fixed charges from year-to-year during the early years of implementation, that could cause significant customer dissatisfaction.

[54] Ex. CEJA-01 at 22. Mr. Siegele does not address the mismatch between household income and tax return income. A household may have more than one tax return, and an individual's tax return may be related to multiple properties, each having a separate utility account.
[55] Ex. CEJA-01 at 22. I calculated the 90% value as the sum of the ratio values (column E) divided by the total of all ratio values in Table 8.
[56] Ex. CEJA-01 at 14.

Q How should the Commission respond to the CEJA proposal?

A The Commission should direct the large IOUs to ensure that the income verification process includes additional household income brackets, similar to those proposed by CEJA, in order to enable future expansion of IGFC brackets to further address equity concerns.

To consider these issues in light of the data from the income verification process, the Commission should open either an additional phase of this proceeding or direct the utilities to file proposals in their individual GRC Phase 2 proceedings. Regardless of what procedural steps the Commission directs, the IOUs should be directed to file information regarding (a) the number of customers per income bracket (using brackets similar to those proposed by CEJA and relying on information gathered through the income verification program approved in this phase) and (b) the feasibility of implementing a bracket system similar to CEJA's proposal. If the Commission adopts my proposal to use AMI-based thresholds for each bracket, then the CEJA approach to setting higher brackets should be applied in that context.

C. Differences in Methods for Setting IGFCs

Q What are the key differences in methods for setting IGFCs?

A The most important difference is the level of progressivity in the IGFC rates. As discussed in Section II.A, my proposal results in more progressive bill impacts than other proposals. This is due to the zero-dollar IGFC for CARE/FERA customers and the use of much higher weights for high- and upper-income customers than the corresponding proposals from other parties, other than CEJA's proposal.

1. CARE/FERA discount

Q Why do you recommend that CARE/FERA customers be permanently assigned a zero-dollar IGFC?

A A zero-dollar IGFC for CARE/FERA customers is essential to meeting the requirements of AB 205,[57] which requires that the fixed charge be established so that "a low-income ratepayer in each baseline territory [realizes] a lower average monthly bill without making

[57] Opening Br. of Sierra Club and the Cal. Env't Just. All. at 9.

any changes in usage."[58] For thrifty low-income consumers, the only way to ensure that their bills will be lower with an IGFC is to set the IGFC at an amount that is lower than the current monthly bill of *all* low-income consumers.

Furthermore, as pointed out by Mr. Siegele's testimony for CEJA, customer arrearage data "shows that CARE customers, even after receiving the CARE discount, are still struggling more to afford their energy bills than other customers."[59]

All other proposals also include meaningfully lower IGFCs for CARE/FERA customers than for other customers. However, any non-zero IGFC for CARE/FERA customers risks causing some CARE/FERA customer bills to increase.

The potential for some low-income customers to see bill increases under most other proposals is demonstrated by the Joint IOUs' interpretation of AB 205's reference to "a low-income ratepayer" as meaning that "the *average* low-income customer … must realize at least some bill savings" (emphasis added).[60] My interpretation is that the legislation did not include the word "average" for good reason. Ensuring that *every* low-income customer benefits (rather than being harmed) from the IGFC is important because low-income customers tend to have less opportunity to control their electricity bill than higher-income customers. The Commission should adopt a do-no-harm approach by establishing a zero-dollar fixed charge for low-income customers.

Q What about the proposal by Cal Advocates to use California Climate Credit ("CCC") funding to offset the lower fixed charge for low-income customers?

A Cal Advocates proposes to reallocate biannual distributions of CCC auction revenues received by the IOUs to cover the difference between the average fixed charge and the low-income customer fixed charge.[61]

As a general matter, it seems more appropriate for the Commission to use the CCC to directly fund customer electrification activities than to use these funds to offset customer-related distribution costs. However, if the Commission wishes to use the CCC for the

[58] Pub. Utils. Code Section 739.9(e)(1).
[59] Ex. CEJA-01 at 9.
[60] Ex. Joint IOUs-01-E at 44.
[61] Ex. Cal Advocates-01-E at 23-24.

purpose of rate relief, I agree with Cal Advocates that using the CCC to benefit "low-income customers who disproportionately suffer from the effects of climate change and environmental degradation more than their higher-income counterparts" is preferable to distributing the CCC to all customers.[62]

2. Cost-based rates for small and large customers

Q Please summarize the parties' proposals to provide cost-based rates for small and large customers.

A In my opening testimony, I recommend that the Commission direct the utilities to include a determination of residential MCACs that distinguishes between those with shared service drops and those with dedicated single-phase service, in their GRC Phase 2 applications. The findings would be used to differentiate between residential service costs in the fixed charge. This is required by Public Utilities Code Section 739.9(d)(1), which states that the fixed charge shall "[r]easonably reflect an appropriate portion of the different costs of serving small and large customers."

NRDC/TURN's proposal includes similar "separate single-family and multi-family fixed charges."[63] NRDC/TURN's testimony recognizes that the utilities do not have "confidence in the accuracy and completeness" of identification as to whether a residential account is a single- or multi-family unit.[64]

My proposal differs from NRDC/TURN's proposal in two respects. First, I differentiate between shared and dedicated service drops rather than housing type, since some multi-family units may have dedicated service drops (and a few single-family units may have multiple meters on a shared service drop).

Second, I recommend that a cost-based differentiation be implemented immediately—but since the utilities claim not to have the billing data quality necessary for immediate implementation, I recommend that the Commission allow the utilities to assume that all residential customers have dedicated service unless they are able to associate the account

[62] Ex. Cal Advocates-01-E at 23.
[63] Ex. NRDC-TURN-01 at 16.
[64] *Id.*

with information that is considered highly likely to indicate that the account is served by a shared service drop.

The Joint IOUs' testimony also discussed this issue, but their proposals do not include any action to address the statutory requirement. The Joint IOUs expressed interest in differentiating between small and large customers by using a residential demand charge, but recommended against taking action at this time because it "would make the hybrid fixed charge concept overly complex and more difficult for customers to understand."[65] I agree with the Joint IOUs that a residential demand charge would be complex and difficult to understand (among other flaws), which is why I recommend a cost-based adjustment to customer fixed charges.

PacifiCorp is the only utility to propose differentiating fixed charges for customers in single family and multi-family dwellings, including weighting the "cost for distribution transformers … by the different average number of customers served per transformer for single family and multi-family."[66]

In contrast, SEIA's proposal explicitly rejects differences in the fixed charge on the basis of customer size. Mr. Beach contends that, "[a]ll residential customers require similar facilities and services to access the electric system, and thus customer access costs do not vary substantially between small and large residential customers."[67]

I do not agree that shared-service and dedicated service costs do not vary substantially. For example, in Liberty Utilities' recent GRC, the annual marginal costs for a single-family customer are reported as $138 per meter, $569 per service costs, and $265 per single-phase transformer service.[68] One can easily see that if the service and transformer costs are shared

[65] Ex. Joint IOUs-01-E at 52.
[66] Ex. PAC/100 at 7. Note that PacifiCorp also proposes to differentiate demand-related distribution costs between multi- and single-family dwellings. I do not support including these costs in the IGFC revenue requirement. However, PacifiCorp makes a valid point that demand-related distribution costs vary because multi-family customers are "less costly to serve because they are less geographically remote and require less equipment to serve them." *Id.* If the Commission includes demand-related distribution costs in the IGFC revenue requirement, I agree with PacifiCorp that a cost-based differentiation in cost allocation to single- and multi-family properties would be appropriate.
[67] Ex. SEIA-01 at 35.
[68] Liberty Utils., Settlement MCOS and Rate Design Study (July 15, 2022), A.21-05-017, tab "MDC-Unit_Investments," Cells J27:J30.

among two or more customers in a multi-family building, the marginal customer access costs would be substantially different.

The proposals of Bear Valley, Cal Advocates, CEJA and Liberty Utilities do not include any discussion of the requirement for the fixed charge to reflect an appropriate portion of the different costs of serving small and large customers.

3. Non-standard treatment of IGFC on certain rate schedules

Q Do you agree that the IGFC should be applied to all residential rates?

A Yes. Although not explicitly stated in my opening testimony, my proposal was designed consistent with the position of other parties that, generally speaking, all default and optional residential rate schedules should have similar fixed charges. As other parties explicitly discussed, if some rates are available without fixed charges, then higher bracket customers would likely select rates without fixed charges.

However, the Joint IOUs have pointed out several reasonable circumstances where the IGFC should not be applied. I agree with their recommendations to exempt rates scheduled to be eliminated and separately metered EV rates for customers whose primary meter is served on a tariff that has an IGFC.[69]

The Joint IOUs also commented that existing optional electrification rates should "always at least collect current levels of distribution fixed charges."[70] I agree with their principle.

Since my proposal does not include demand-related distribution costs in the IGFC revenue requirement, I proposed that electrification rates with existing fixed charges should continue to collect the same distribution costs in those rates *until those rates are updated in the utilities' GRC Phase 2 proceedings*. I recommended this temporary approach because in my opinion, the IGFC should largely address the motivations for establishing electrification rates, and the Commission may find that residential electrification rates are no longer necessary or at least their designs should be reconsidered in response to its IGFC decision.

[69] Ex. Joint IOUs-01-E at 50.
[70] Ex. Joint IOUs-01-E at 51.

V. Response to Proposals on Income Verification

Q Why is it important that an IGFC be accompanied by a well-designed income verification process?

A The Joint IOUs addressed this question, identifying two reasons, with which I agree, for why an income verification process must be well-designed. First, an accurate initial income level assignment will increase customer trust and acceptance of the new IGFC. Second, an accurate initial income level assignment will reduce the anticipated number of appeals.[71]

Q What income verification process should the Commission approve?

A Cal Advocates and the Joint IOUs each provided a fairly comprehensive proposal for income verification. I support elements of each proposal. In Table 4, I summarize their proposals and provide my recommendation on most points.

[71] Ex. Joint IOUs-01-E at 75.

1 *Table 4: Comparison of Income Verification Proposals by Cal Advocates and the Joint IOUs*

	Cal Advocates[72]	Joint IOUs[73]	Response
Who manages income verification data?	The IOUs.	Commission or other state agency, overseeing a third party. Requiring the IOUs to manage income verification would be costly due to the lack of reliable data sources.	The Joint IOUs' position and supporting evidence on this point is reasonable.
What should be the definition of income?	Not directly stated.	Wages, social security, pensions, child support.	All household income that can be obtained through the adopted income verification process.
Over what time period should income be assessed?	Not directly stated.	Calendar year.	The Joint IOUs' position and supporting evidence on this point is reasonable.
Should CARE/FERA enrollment status be relied upon?	Yes.	Yes. However, the Joint IOUs suggest it is not reliable on a long-term basis without being clear about what might replace it.	Yes, Cal Advocates' position and supporting evidence on this point is reasonable.
Is it practical to use credit agency data to obtain income data?	Yes. Customers may appeal their default bracket assignment by providing permission for Equifax to share income information with the IOU.	No. Affirmative customer consent would be required from every individual in the household, agencies only source to payroll data, use of data may be inconsistent with credit laws, and may have error rates in excess of 10-20%.	Yes, Cal Advocates' position is reasonable, as discussed below.
Is it practical to use CalFresh to verify low-income status?	No position.	Yes. For customers who are CalFresh recipients, verification is feasible. However, it could not be expanded to cover non-recipients and may require either amendment to existing law or direct customer consent.	No position.

[72] Prepared Test. On Rulemaking to Advance Demand Flexibility Through Elec. Rates – Income Verification Implementation at 4-18.
[73] Ex. Joint IOUs-01-E at 18-20, 55-58, 62-76, 84-88.

	Cal Advocates[72]	Joint IOUs[73]	Response
Is it practical to use the LifeLine program to obtain income data?	No position.	No. Most customers do not qualify for public assistance proxies. However, it provides proof that third party administration is a workable model.	No position.
Is it practical to use customer self-attestation?	No position.	No. Existing CARE/FERA verification allows for disqualification of non-respondents, which is not practical for IGFC, the process may be too difficult for customers—resulting in additional costs related to appeals or re-enrollments, and defaulting to a middle-income level would create disincentives for high-income customers to respond.	Evidence suggests that customers are unlikely to significantly and intentionally underreport wage and salary income. However, if income is designed more broadly, or self-attestation questionnaire is not well-designed, then the results could be problematic.[74] For these reasons, self-attestation could be part of the income verification process but could be costly or error-prone if used as the main method.
Is it practical to use a model based on public data?	No position.	No. Geographic data, such as census bureau data, is unlikely to provide accurate results and would lead to high appeals costs.	The Joint IOUs' position and supporting evidence on this point is reasonable.
Is it practical to use Franchise Tax Board ("FTB") data?	No, but it should be considered as a long-term strategy because existing law would require cumbersome and	Yes. However, the FTB does not have income information for up to 20% of households and it would require an amendment to the California Revenue & Taxation Code.	No. If no further legislation is passed, the Joint IOUs' fallback is self-attestation or affirmative customer consent, which could be costly or error-prone as the main income verification method.[74, 75]

[74] "Wage and salary income response bias estimates from a wide variety of studies are generally small and without consistent sign, and indicators of unreliability (random error) are quite low. Bias estimates for transfer income amount reporting vary in magnitude but are generally negative, indicating underreporting, and random error is also an important problem. Random error is also marked in asset income reports, although indicators of consistent bias are less clear." Jeffrey C. Moore et al., *Income Measurement Error in Surveys: A Review*, J. of Official Stats., v. 16 (2000). However, errors in income reporting can be substantial if the income reporting process does not use "clear, simple and easily understood language," which can be challenging because the varied components of household income makes the task inherently complex. *Id.*at 19. Steps to avoid errors may introduce complexity, such as encouraging use of income records by respondents. Stephen P. Jenkins and Fernando Rios-Avila, *Reconciling Reps.: modelling emp. earnings and measurement errors using linked survey and admin. data*, J. of the Royal Stat. Society Series A: Stats. in Soc'y, v. 186 no. 1 at 132 (January 2023).
[75] Ex. Joint IOUs-01-E at 77.

	Cal Advocates[72]	Joint IOUs[73]	Response
	expensive consumer engagement. If a statute is enacted to allow for FTB data use, it will be complicated to implement a data-sharing process.		
What default bracket should be used for customers who cannot be classified?	The highest adopted bracket.	Income bracket 3, although this could result in revenue under-collection. For customers who opt-out of income data collection, the highest fixed charge should apply	The default bracket should be phased in, as discussed below.
Should there be an appeals process?	Yes, a simple process that relies on credit agency data and then a more complex process that relies on customer-supplied tax return documents.	Yes, through review of customer-supplied tax return documents.	Support Cal Advocates, as discussed below.
Should the appeals process allow for retroactive bill corrections?	No position.	No, information provided by a Commission-contracted third party does not constitute a billing error.	Yes, as discussed below.

Q Do you agree that the Fair Credit Reporting Act ("FCRA") requires affirmative customer consent to obtain information from credit agencies such as Equifax?

A No. Neither Cal Advocates nor the Joint IOUs provide clear evidence that consumer authorization is required for credit agencies to furnish information for this purpose.

The FCRA clearly authorizes the use of credit agency data for the purposes of income verification. Income verification data clearly falls within the definition of a "consumer report" as defined in 15 U.S.C. §1681a(d)(1). As stated in 15 U.S.C. §1681b(a)(3)(D), consumer reports may be furnished under several circumstances including, "to use the information in connection with a determination of the consumer's eligibility for a license or other benefit granted by a governmental instrumentality required by law to consider an applicant's financial responsibility or status."

Required consumer authorization in 15 U.S.C. §1681b(c)(1) applies only to a "credit or insurance transaction that is not initiated by the customer," and that "credit" is defined in 15 U.S.C. §1691a(d) as "the right granted by a creditor to a debtor to defer payment of debt or to incur debts and defer its payment or to purchase property or services and defer payment therefor." It does not appear to me that the IGFC represents either an instance of "credit" or an "insurance transaction." As a result, it does not appear that customer authorization would be required in the context of an IGFC.

The second-hand information relied upon by Cal Advocates and the Joint IOUs to inform their opinion that consumer authorization is required for this purpose may not be accurate. I recommend that the Commission take steps to obtain evidence on this point directly from an expert on the FCRA.

Q If the Commission determines that customer consent is not required to obtain credit agency data, how could the process be simplified?

A As noted above, I support the Joint IOUs' proposal that the assignment of customers to IGFC brackets should be the responsibility of a third party contracted directly by the Commission. If the Commission determines that it is legal under the FCRA and any other applicable law to contract directly with a credit agency to provide income verification data to that third party, then credit agency data should be used with available CARE/FERA information (and any available social service agency data) to make initial assignments to IGFC brackets.

The credit agency approach should be used first because of the relatively low cost of such a process (on a per-customer basis) and the likelihood that it will be simpler to implement than the Joint IOUs' proposal to rely first on FTB data. Even if authorized by law, both Cal Advocates and the Joint IOUs acknowledge that establishing an FTB data sharing process will be challenging.

The third-party administrator should be granted access to customer identification information from the IOUs necessary to attempt a match with credit agency data. Recent income data for all responsible customers and household residents should be included in the total used to assign the customer to an income bracket. The IOU should be provided with the IGFC bracket assignment for the customer with no additional detail.

If the credit agency approach is found to be impractical, then it will be necessary for the Commission to consider more complex, costly income verification methods that rely on customer-supplied or authorized data. The Commission may wish to obtain further evidence on methods to fully document household income and the costs of obtaining such information from its customers.

Q Should there be an additional appeal process beyond the use of credit agency data?

A Yes. Both Cal Advocates and the Joint IOUs propose that customers should have the option to submit documentation, such as tax returns, in an appeals process. To simplify this process, I recommend that customers be allowed to self-attest to income and other necessary household data as a first step.

As noted above, evidence suggests that customer self-attestation of income can be a reliable source of data, if complexities in reporting are adequately addressed. As a starting point, the Commission could direct the third-party administrator to accept self-attestation of household income and other necessary data if the income is within 20% of the amount estimated by the credit agency.

Only if the customer is unable to be acceptably assigned to an IGFC bracket using credit agency and self-attestation data should the customer be required to provide documentation.

Q What income bracket should customers be assigned to if the third-party administrator is unable to confidently assign them to an IGFC bracket?

A Both Cal Advocates and the Joint IOUs make reasonable arguments for their proposals to default customers to the highest bracket and a mid-level bracket. After reviewing their positions, I recommend that the Commission adopt both approaches.

Initially, the Commission should direct that any necessary default bracket assignment should be set as a mid-level bracket that is close to the average fixed charge for the utility. After a period of time (a year to 18 months), the default bracket should be raised until reaching the highest approved IGFC level. Along with appropriate notifications, this will balance the adverse impact of an incorrect bracket assignment with the importance of obtaining full revenue recovery.

Q Should an IGFC bracket re-assignment after an appeal be considered a billing error?

A Yes, unless the re-assignment is caused by a significant misrepresentation by the customer (such as fraudulent document submission), customers should not be harmed by an error in IGFC bracket assignment, even if it takes some time to verify that a correction is warranted. This should include not only any re-assignment resulting from an appeal, but also re-assignments resulting from a material upgrade in data quality available to the third-party administrator such as a new data source or improved customer identification provided by the IOU. I recommend that the Commission provide for a refund process, perhaps with a time limitation, for customers who have paid excessive fixed charges due to assignment to the wrong IGFC bracket.

VI. Conclusion

Q Please summarize updates to your recommendations.

A I recommend that the Commission reach the following findings, with updates from my opening testimony indicated by legal blackline:

1) Generation-related costs that vary based on the volume of electricity consumed should be excluded from the IGFC.
2) Generation-related costs that provide for guaranteed cost recovery of historical embedded generation costs are stranded costs that became disconnected from the economics of

generation supply during the various phases of market restructuring and are collected through non-bypassable charges.

3) Those generation-related costs, collected through non-bypassable charges, should be eligible for recovery through the IGFC.
4) The PCIA charge has been highly volatile and unpredictable because its costs are linked to market capacity costs. Because including it in the IGFC could result in significant volatility in the fixed charge, PCIA costs should be excluded from recovery in the IGFC.
5) AB 205 does not direct or encourage the Commission to modify its definition of "customer-specific" costs, and it is reasonable to retain the definition of MCACs established in D.17-09-035.
6) AB 205 does not restrict the Commission from including non-marginal customer access costs in the IGFC. Because those customer-specific distribution costs were incurred on a per-customer basis, both marginal and non-marginal customer access costs should be recovered through the IGFC.
7) Based on Commission precedent and widely accepted practice across North America, customer-specific distribution costs, which vary with customer count, should be recovered thorough the IGFC.
8) The California Assembly's amendments to Section 381(a) in AB 205 removed statutory restrictions for collecting specific NBCs in volumetric rates.
9) <u>To the extent that there are remaining restrictions on recovering NBCs through a fixed charge, it is reasonable to collect a portion of distribution costs through the IGFC in an amount equal to the NBC restricted cost.</u>
10) The four distribution-related NBCs are related to the recovery of costs related to wildfires, and those costs do not vary significantly with electricity consumption (other than the drastic step of shutting off power). Accordingly, those costs should be eligible for recovery through the IGFC.
11) The costs to fund public purpose programs and regulatory commissions are more similar in nature to the costs of other state agency programs than they are to other costs of electric service.
12) Commission-approved public purpose program costs do not vary with electrical usage. In the case of energy efficiency, the relationship is usually in the opposite direction: electrical usage varies with energy efficiency spending.
13) Energy efficiency costs are, for the most part, not fixed costs, but rather costs that may vary based on Commission policy and should be recovered through the IGFC.
14) Regulatory commission costs do not vary with electrical usage and should be recovered through the IGFC.
15) Because the income-graduated fixed charge establishes a funding mechanism which may be assessed on a progressive basis in a manner similar to California's tax system, the IGFC should be used to recover the costs to fund public purpose programs and regulatory commissions.
16) Other distribution costs that should be considered eligible for recovery through the IGFC are those whose fixed costs do not vary with electricity consumption, as stated in AB 205 Section 14(a)(4). It is reasonable for the Commission to retain discretion as to whether such costs should or should not be included in the IGFC as circumstances may change.

17) Because demand-related distribution costs vary with electricity consumption, they are properly collected in volumetric rates and should be excluded from recovery through the IGFC. Because they would recover costs that vary with electricity consumption, the Joint IOUs' proposal for an EIA mechanism and PG&E's proposal to include its Distribution – MDCC Primary New Business costs are rejected.
18) FERC-jurisdictional transmission and other reliability costs should not be recovered in the IGFC because of the lack of evidence that FERC would accept recovery of these charges in a fixed charge.
19) Because the uniform factor method results in greater cost savings for electrification activities, it should be used to determine the adjustments to volumetric rates that result from recovering costs through the IGFC.
20) It is reasonable to establish five tiers for the IGFC, including (a) CARE/FERA customers, (b) below average income, (c) moderate income, (d) high income, and (e) upper income, as defined using CARE/FERA eligibility criteria and AMI thresholds set out in Table 5 of Sierra Club Exhibit SC-01E. In the future, the Commission may revisit the thresholds used to define the tiers, including potentially adding an upper-plus income tier.
21) Because it will be challenging to implement geographically-specific AMI tiers immediately, it is reasonable to defer use of AMI in favor of FPL tiers until the utilities are able to implement AMI tiers, as set out in Table 5 of Sierra Club Exhibit SC-01E. Both the temporary FPL-based tiers and the final AMI-based tiers will require the utilities (or a designated third-party) to determine household size and income with sufficient precision to assign customers to the correct tier.
22) CARE/FERA customers should be assigned a zero-dollar IGFC to ensure that all low-income customers realize a lower average monthly bill, as required by Section 739.9(e)(1).
23) To support the zero-dollar IGFC without affecting the amount of non-residential CARE program contributions, CARE program funding should be used to support a portion of the zero-dollar IGFC charge for CARE customers, as shown in Table 6 of Sierra Club Exhibit SC-01E.
24) The IGFC for below-average income customers should recover revenue for costs that the Commission has previously determined to be "customer-specific" (MCACs) and not for other costs that are only eligible for recovery in an IGFC.
25) All costs that should be recovered or are eligible for recovery in an IGFC (aside for the PCIA) should be recovered through the top three income tiers to reduce inequities among customers, as required by AB 205 Section 14(a)(4) and to assist with achieving California's climate change goals, as required by AB 205 Section 14(b)(2).
26) A reasonable progressive weighting method is illustrated in Table 8 of Sierra Club Exhibit SC-01E and should be used to allocate costs between the top three income tiers.
27) To reflect the different costs of serving small and large customers as required by Section 739.9(d)(1), the IGFC should provide for different MCACs for customers served by shared service drops as compared to customers served by dedicated service drops.
28) The utilities do not have billing quality data to determine which accounts are served by shared or dedicated service drops, but they do have some data that may be used for initial

assignments. It is reasonable for the utilities to gradually improve these data over time and provide customers with information and incentive to identify misclassifications.

29) The utilities do not have information regarding the costs or number of residential customers served by more costly three-phase or dedicated transformer services.
30) The demand-related distribution costs included in the fixed charges of approved electrification rates should be retained until each utility's next GRC Phase 2 in the interests of maintaining consistency in those rate designs.
31) Because electrification rates are designed differently than other optional rates, those optional rates will include small, fixed charges for CARE and FERA customers.
32) The income verification process should be the responsibility of a third party contracted directly by the Commission. The Commission will obtain evidence from an expert on the Fair Credit Reporting Act in order to determine whether a credit agency such as Equifax could provide the necessary information for income verification.
33) The income verification process shall collect information that includes additional household income brackets similar to those proposed by CEJA in Opening Testimony, in order to enable future expansion of IGFC brackets to further address equity concerns.
34) Any necessary default bracket assignment will be set as a mid-level bracket that is close to the average fixed charge for the utility. After a period of time, the default bracket will be raised until reaching the highest approved IGFC level.

I recommend that the Commission direct the utilities to take the following actions in a compliance filing, with updates from my opening testimony indicated by legal blackline:

1) Provide an initial best-available-evidence estimate of non-marginal customer access costs for use in the IGFC.
2) Propose a plan for filing an improved non-marginal customer access revenue requirement in either the utilities' next Phase 1 GRC or a Phase II of this proceeding.
3) Propose a plan for implementing geographically specific AMI tiers.
4) Update each residential tariff's volumetric rates after removing the recovery of revenues related to the costs that will be recovered in the IGFC.
5) Determine the total amount of costs to be recovered in the IGFC, less the costs to be recovered from the below-average-income customer tier. The IGFC for each of the remaining three tiers should be determined using these costs, based on the weighted cost method illustrated in Table 8 of Sierra Club Exhibit SC-01E.
6) Utilize available information to estimate the difference in MCACs for customers served by shared or dedicated service drops and apply those price differentials to the IGFC.
7) Propose a plan for utilizing the best-available-information for initially assigning residential customer accounts to shared or dedicated service drop rates.
8) Propose a plan for gradually improving the accuracy of account data reflecting the service drop for each residential customer account in the utility's billing system.
9) Provide an analysis of further cost differentiation for customers served by three-phase service or dedicated transformers from the perspective of equity and the reasonableness of cost-allocation, including a discussion of the actions required to implement such cost differentiation.

10) Establish an income verification appeals process that, as a starting point, accepts self-attestation of household income and other necessary data if the income is within 20% of the amount established by the credit agency, and only requires documentation for larger changes.

Q Does this conclude your testimony?

A Yes.

Docket No: R.22-07-005

Sierra Club
Reply Testimony of John D. Wilson

Attachment 1
Area Median Income by County
(with Comparison to Living Wage)

	Sierra Club Proposal Thresholds			Joint IOUs Proposal Thresholds				Hourly Living Wage for Family of 3		Sierra Club Proposal
	Moderate Income (80% AMI)	High Income (125% AMI)	Upper Income (200% AMI)	CARE/FERA		Non-CARE/FERA		(2 Working Adults, 1 Child)		Income Tier for
County				Threshold	% of AMI	Threshold	% of AMI	Hourly	Annual	Family at Living Wage
Butte	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.35	$84,656	Middle or CARE/FERA
Colusa	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.13	$79,581	Middle or CARE/FERA
Del Norte	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.20	$79,872	Middle or CARE/FERA
Fresno	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.09	$83,574	Middle or CARE/FERA
Glenn	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.10	$79,456	Middle or CARE/FERA
Humboldt	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.09	$83,574	Middle or CARE/FERA
Imperial	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.54	$81,286	Middle or CARE/FERA
Kern	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.55	$81,328	Middle or CARE/FERA
Kings	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.95	$82,992	Middle or CARE/FERA
Lake	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.52	$81,203	Middle or CARE/FERA
Madera	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.14	$83,782	Middle or CARE/FERA
Mariposa	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.52	$81,203	Middle or CARE/FERA
Merced	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.86	$82,618	Middle or CARE/FERA
Modoc	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$18.53	$77,085	Middle or CARE/FERA
Siskiyou	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.16	$79,706	Middle or CARE/FERA
Sutter	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.21	$84,074	Middle or CARE/FERA
Tehama	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.19	$79,830	Middle or CARE/FERA
Trinity	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$18.90	$78,624	Middle or CARE/FERA
Tulare	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$19.39	$80,662	Middle or CARE/FERA
Yuba	$56,133	$87,708	$140,333	$23,030	33%	$187,119	267%	$20.06	$83,450	Middle or CARE/FERA
Shasta	$57,200	$89,375	$143,000	$23,030	32%	$187,119	262%	$20.37	$84,739	Middle or CARE/FERA
Stanislaus	$57,467	$89,792	$143,667	$23,030	32%	$187,119	260%	$20.46	$85,114	Middle or CARE/FERA
Lassen	$57,867	$90,417	$144,667	$23,030	32%	$187,119	259%	$19.03	$79,165	Middle or CARE/FERA
Mendocino	$57,867	$90,417	$144,667	$23,030	32%	$187,119	259%	$20.44	$85,030	Middle or CARE/FERA
Mono	$57,867	$90,417	$144,667	$23,030	32%	$187,119	259%	$21.80	$90,688	Middle or CARE/FERA
Plumas	$58,800	$91,875	$147,000	$23,030	31%	$187,119	255%	$18.95	$78,832	Middle or CARE/FERA
Inyo	$59,600	$93,125	$149,000	$23,030	31%	$187,119	251%	$19.93	$82,909	Middle or CARE/FERA
San Joaquin	$59,733	$93,333	$149,333	$23,030	31%	$187,119	251%	$20.84	$86,694	Middle or CARE/FERA
Tuolumne	$60,000	$93,750	$150,000	$23,030	31%	$187,119	249%	$20.04	$83,366	Middle or CARE/FERA
Amador	$62,400	$97,500	$156,000	$23,030	30%	$187,119	240%	$19.89	$82,742	Middle or CARE/FERA
Riverside	$63,467	$99,167	$158,667	$23,030	29%	$187,119	236%	$21.55	$89,648	Middle or CARE/FERA
San Bernardino	$63,467	$99,167	$158,667	$23,030	29%	$187,119	236%	$21.41	$89,066	Middle or CARE/FERA
Calaveras	$64,800	$101,250	$162,000	$23,030	28%	$187,119	231%	$19.72	$82,035	Middle or CARE/FERA
Sierra	$64,800	$101,250	$162,000	$23,030	28%	$187,119	231%	$19.68	$81,869	Middle or CARE/FERA
Alpine	$65,467	$102,292	$163,667	$23,030	28%	$187,119	229%	$19.69	$81,910	Middle or CARE/FERA
Nevada	$70,800	$110,625	$177,000	$23,030	26%	$187,119	211%	$20.73	$86,237	Middle or CARE/FERA
Yolo	$71,467	$111,667	$178,667	$23,030	26%	$187,119	209%	$22.67	$94,307	Middle or CARE/FERA
El Dorado	$73,067	$114,167	$182,667	$23,030	25%	$187,119	205%	$21.97	$91,395	Middle or CARE/FERA
Placer	$73,067	$114,167	$182,667	$23,030	25%	$187,119	205%	$22.14	$92,102	Middle or CARE/FERA
Sacramento	$73,067	$114,167	$182,667	$23,030	25%	$187,119	205%	$21.81	$90,730	Middle or CARE/FERA
San Benito	$75,733	$118,333	$189,333	$23,030	24%	$187,119	198%	$22.08	$91,853	Middle or CARE/FERA
Solano	$78,267	$122,292	$195,667	$23,030	24%	$187,119	191%	$22.37	$93,059	Middle or CARE/FERA
San Luis Obispo	$78,800	$123,125	$197,000	$23,030	23%	$187,119	190%	$23.22	$96,595	Middle or CARE/FERA
Monterey	$81,867	$127,917	$204,667	$23,030	23%	$187,119	183%	$23.17	$96,387	Middle or CARE/FERA
Sonoma	$85,600	$133,750	$214,000	$23,030	22%	$187,119	175%	$24.15	$100,464	Middle or CARE/FERA
Los Angeles	$85,867	$134,167	$214,667	$23,030	21%	$187,119	174%	$23.98	$99,757	Middle or CARE/FERA
Ventura	$90,267	$141,042	$225,667	$23,030	20%	$187,119	166%	$24.60	$102,336	Middle or CARE/FERA
Napa	$90,933	$142,083	$227,333	$23,030	20%	$187,119	165%	$24.66	$102,586	Middle or CARE/FERA
San Diego	$93,733	$146,458	$234,333	$23,030	20%	$187,119	160%	$24.65	$102,544	Middle or CARE/FERA
Orange	$97,600	$152,500	$244,000	$23,030	19%	$187,119	153%	$25.57	$106,371	Middle or CARE/FERA
Santa Barbara	$100,667	$157,292	$251,667	$23,030	18%	$187,119	149%	$25.68	$106,829	Middle or CARE/FERA
Alameda	$102,933	$160,833	$257,333	$23,030	18%	$187,119	145%	$25.98	$108,077	Middle or CARE/FERA
Contra Costa	$102,933	$160,833	$257,333	$23,030	18%	$187,119	145%	$25.58	$106,413	Middle or CARE/FERA
Santa Cruz	$112,000	$175,000	$280,000	$23,030	16%	$187,119	134%	$28.15	$117,104	Middle or CARE/FERA
Santa Clara	$121,333	$189,583	$303,333	$23,030	15%	$187,119	123%	$28.21	$117,354	Low or CARE
Marin	$134,267	$209,792	$335,667	$23,030	14%	$187,119	111%	$30.01	$124,842	Low or CARE
San Francisco	$134,267	$209,792	$335,667	$23,030	14%	$187,119	111%	$30.12	$125,299	Low or CARE
San Mateo	$134,267	$209,792	$335,667	$23,030	14%	$187,119	111%	$29.33	$122,013	Low or CARE

Source: Living Wage Calculator, Massachusetts Institute of Technology, *available at* https://livingwage.mit.edu/
*MIT dataset does not include all 3 person households in HUD dataset (3 working adults, 1 working adult and two other adults, etc.)

	Household Size							
County	1	2	3	4	5	6	7	8
Alameda County	$ 30,000	$ 34,300	$ 38,600	$ 42,850	$ 46,300	$ 49,750	$ 53,150	$ 56,600
Alpine County	$ 19,100	$ 21,800	$ 24,550	$ 27,250	$ 29,450	$ 31,650	$ 33,800	$ 36,000
Amador County	$ 18,200	$ 20,800	$ 23,400	$ 26,000	$ 28,100	$ 30,200	$ 32,250	$ 34,350
Butte County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Calaveras County	$ 18,900	$ 21,600	$ 24,300	$ 27,000	$ 29,200	$ 31,350	$ 33,500	$ 35,650
Colusa County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Contra Costa County	$ 30,000	$ 34,300	$ 38,600	$ 42,850	$ 46,300	$ 49,750	$ 53,150	$ 56,600
Del Norte County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
El Dorado County	$ 21,300	$ 24,350	$ 27,400	$ 30,400	$ 32,850	$ 35,300	$ 37,700	$ 40,150
Fresno County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Glenn County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Humboldt County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Imperial County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Inyo County	$ 17,400	$ 19,850	$ 22,350	$ 24,800	$ 26,800	$ 28,800	$ 30,800	$ 32,750
Kern County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Kings County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Lake County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Lassen County	$ 16,900	$ 19,300	$ 21,700	$ 24,100	$ 26,050	$ 28,000	$ 29,900	$ 31,850
Los Angeles County	$ 25,050	$ 28,600	$ 32,200	$ 35,750	$ 38,650	$ 41,500	$ 44,350	$ 47,200
Madera County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Marin County	$ 39,150	$ 44,750	$ 50,350	$ 55,900	$ 60,400	$ 64,850	$ 69,350	$ 73,800
Mariposa County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Mendocino County	$ 16,900	$ 19,300	$ 21,700	$ 24,100	$ 26,050	$ 28,000	$ 29,900	$ 31,850
Merced County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Modoc County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Mono County	$ 16,900	$ 19,300	$ 21,700	$ 24,100	$ 26,050	$ 28,000	$ 29,900	$ 31,850
Monterey County	$ 23,900	$ 27,300	$ 30,700	$ 34,100	$ 36,850	$ 39,600	$ 42,300	$ 45,050
Napa County	$ 26,500	$ 30,300	$ 34,100	$ 37,850	$ 40,900	$ 43,950	$ 46,950	$ 50,000
Nevada County	$ 20,650	$ 23,600	$ 26,550	$ 29,500	$ 31,900	$ 34,250	$ 36,600	$ 38,950
Orange County	$ 28,500	$ 32,550	$ 36,600	$ 40,650	$ 43,950	$ 47,200	$ 50,450	$ 53,700
Placer County	$ 21,300	$ 24,350	$ 27,400	$ 30,400	$ 32,850	$ 35,300	$ 37,700	$ 40,150
Plumas County	$ 17,150	$ 19,600	$ 22,050	$ 24,500	$ 26,500	$ 28,450	$ 30,400	$ 32,350
Riverside County	$ 18,500	$ 21,150	$ 23,800	$ 26,400	$ 28,550	$ 30,650	$ 32,750	$ 34,850
Sacramento County	$ 21,300	$ 24,350	$ 27,400	$ 30,400	$ 32,850	$ 35,300	$ 37,700	$ 40,150
San Benito County	$ 22,100	$ 25,250	$ 28,400	$ 31,550	$ 34,100	$ 36,600	$ 39,150	$ 41,650
San Bernardino County	$ 18,500	$ 21,150	$ 23,800	$ 26,400	$ 28,550	$ 30,650	$ 32,750	$ 34,850
San Diego County	$ 27,350	$ 31,250	$ 35,150	$ 39,050	$ 42,200	$ 45,300	$ 48,450	$ 51,550
San Francisco County	$ 39,150	$ 44,750	$ 50,350	$ 55,900	$ 60,400	$ 64,850	$ 69,350	$ 73,800
San Joaquin County	$ 17,400	$ 19,900	$ 22,400	$ 24,850	$ 26,850	$ 28,850	$ 30,850	$ 32,850
San Luis Obispo County	$ 23,000	$ 26,250	$ 29,550	$ 32,800	$ 35,450	$ 38,050	$ 40,700	$ 43,300
San Mateo County	$ 39,150	$ 44,750	$ 50,350	$ 55,900	$ 60,400	$ 64,850	$ 69,350	$ 73,800
Santa Barbara County	$ 29,350	$ 33,550	$ 37,750	$ 41,900	$ 45,300	$ 48,650	$ 52,000	$ 55,350
Santa Clara County	$ 35,400	$ 40,450	$ 45,500	$ 50,550	$ 54,600	$ 58,650	$ 62,700	$ 66,750
Santa Cruz County	$ 32,700	$ 37,350	$ 42,000	$ 46,650	$ 50,400	$ 54,150	$ 57,850	$ 61,600
Shasta County	$ 16,700	$ 19,050	$ 21,450	$ 23,800	$ 25,750	$ 27,650	$ 29,550	$ 31,450
Sierra County	$ 18,900	$ 21,600	$ 24,300	$ 27,000	$ 29,200	$ 31,350	$ 33,500	$ 35,650
Siskiyou County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Solano County	$ 22,850	$ 26,100	$ 29,350	$ 32,600	$ 35,250	$ 37,850	$ 40,450	$ 43,050
Sonoma County	$ 25,000	$ 28,550	$ 32,100	$ 35,650	$ 38,550	$ 41,400	$ 44,250	$ 47,100
Stanislaus County	$ 16,750	$ 19,150	$ 21,550	$ 23,900	$ 25,850	$ 27,750	$ 29,650	$ 31,550
Sutter County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Tehama County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Trinity County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Tulare County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850
Tuolumne County	$ 17,500	$ 20,000	$ 22,500	$ 24,950	$ 26,950	$ 28,950	$ 30,950	$ 32,950
Ventura County	$ 26,350	$ 30,100	$ 33,850	$ 37,600	$ 40,650	$ 43,650	$ 46,650	$ 49,650
Yolo County	$ 20,850	$ 23,800	$ 26,800	$ 29,750	$ 32,150	$ 34,550	$ 36,900	$ 39,300
Yuba County	$ 16,350	$ 18,700	$ 21,050	$ 23,350	$ 25,250	$ 27,100	$ 29,000	$ 30,850

Source: U.S. Dep’t of Hous. and Urb. Dev., Tables for HUD 30% Income Levels (Apr. 18, 2022), available at https://www.huduser.gov/portal/datasets/il.html.Attachment

Docket No: R.22-07-005

Sierra Club
Reply Testimony of John D. Wilson

Attachment 2
Sierra Club Data Request Responses

DATA REQUESTS

SC 1-1. Please state whether to design volumetric rates in the Fixed Charge Tool, your proposal uses the uniform factor (or constant ratio) method or the equal cents method. Please state the reason for your choice.

TURN/NRDC elected to use the "equal cents" adjustment to the volumetric charge. This was not based on any specific principal or methodological approach. In exploring this assumption when developing our proposal, we found that the difference in volumetric rates does not differ greatly whether one elects the constant ratio or equal cents method, as shown in the table below.

Table 1 SC DR-01. Equal Cents vs. Constant Ratio Approach
TURN/NRDC Proposal, PG&E TOU-C

	Equal Cents		Constant Ratio		Difference (Equal - Constant)	
	Non-CARE	CARE	Non-CARE	CARE	Non-CARE	CARE
Summer - Peak	$ 0.393	$ 0.254	$ 0.382	$ 0.247	$ 0.011	$ 0.007
Summer - Part-Peak	$ -	$ -	$ -	$ -	$ -	$ -
Summer - Off-Peak	$ 0.330	$ 0.212	$ 0.322	$ 0.207	$ 0.008	$ 0.005
Winter - Peak	$ 0.296	$ 0.191	$ 0.301	$ 0.193	$ (0.005)	$ (0.003)
Winter - Part-Peak	$ -	$ -	$ -	$ -	$ -	$ -
Winter - Off-Peak	$ 0.279	$ 0.179	$ 0.284	$ 0.183	$ (0.005)	$ (0.003)

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Cal Advocates Response to Data Request

R.22-07-005: Rulemaking to Advance Demand Flexibility Through Electric Rates
Phase 1: Income Graduated Fixed Charge

Date: 5/16/2023

Request Received: 05/10/2023

To:

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Re: First Data Request of the Solar Energy Industries Association

GENERAL OBJECTIONS

1. Cal Advocates objects to each request to the extent it seeks information protected from disclosure by the attorney-client privilege, the attorney work-product doctrine, or any other privilege or protection from disclosure. Cal Advocates intends to invoke all such privileges and protections, and any inadvertent disclosure of privileged or protected information shall not give rise to a waiver of any such privilege or protection.

2. These responses are made without waiving Cal Advocates' rights to raise all issues regarding relevance, materiality, privilege, or admissibility in evidence in any proceeding. Cal Advocates reserves the right, but does not obligate itself, to amend these responses as needed based on any changes to Sierra Club's Application or the proposed securitization structure.

3. Cal Advocates objects generally to each request to the extent it seeks information, documents, formulas, models and tables that originated from, were identified by, or are in the sole possession of Sierra Club and are thus already available to Sierra Club's thus making these requests overly burdensome.

4. Cal Advocates objects to the extent that the data request requires Cal Advocates to provide information that Pacific Gas & Electric Company (PG&E) has claimed is confidential and cannot be shared outside of Commission staff. Based upon communications with PG&E, Cal Advocates suggests Sierra Club communicate directly with PG&E's counsel, Gail Slocum, in order to determine whether a Non-Disclosure Agreement, or some similar mechanism can be used in order to access the data.

5. Cal Advocates incorporates each of these General Objections into each of its responses below. Each of Sierra Club's's responses below is provided subject to and without waiver of the foregoing objections and any additional objections made below.

DATA REQUEST RESPONSE

SC 1-1. Please provide any and all workpapers that show the basis for the numeric proposals in the Public Advocate Office's Direct Testimony filed April 7, 2023, as amended via an errata filed on May 1, 2023. For all such workpapers, please provide copies in Excel-compatible spreadsheets with macros, data, links, source files and formulae intact and functioning.

Response:

Cal Advocates restates its general objection number 4, and does not include PG&E's confidentially marked information in this response. See instructions in general objection 4 for more information.

Please refer to the following attachments.

- Fixed Charge Design Model 2023-04-13-1.xlsb
- Errata_SDG&E and SCE Bill Impact Workings_Nichols
- Cal Advocates-01 Rate Design Tables.xlsx
- calenviroscreen40reportf2021.pdf
- Figure 2 - DAC 2014-2019 median income source data.xlsx
- Next10-electricity-rates-v2.pdf
- R1807006 2019 Annual Affordability Report.pdf
- Total IOU Residential Accounts – Equifax request

SC 1-2. Please state whether to design volumetric rates in the Fixed Charge Tool, your proposal uses the uniform factor (or constant ratio) method or the equal cents method. Please state the reason for your choice.

Response: Cal Advocates' proposal as provided in Errata Testimony submitted on May 1st uses the equal cents method. Cal Advocates generally does not oppose either the equal cents or constant ratio in concept. However, Cal Advocates employed the equal cents method because it produced a more even percentage of rate reductions across time of use periods for all three Investor Owned Utilities. Specifically, the E3 model produced a considerably uneven percentage of rate reductions across time of use periods for SDG&E when using the constant ratio method. In comparison, when employing the constant ratio method, PG&E and SCE's percentage of rate reductions were relatively more even. That is, the $/kWh reduction using the constant ratio is comparatively much smaller during the summer periods compared to the winter periods for SDG&E.

The following tables illustrate such results for each IOU. Using the constant ratio method only reduced SDG&E's summer rates by 4%-11% and winter rates by 21%-26%. Such a lopsided result did not appear for the other IOUs to the same extent. Cal Advocates would support a method that produced uniform percentage total retail rate (i.e., inclusive of distribution, generation, and all other rate components) reductions across time of use periods.

SDG&E Rate Schedule: TOU-DR1

Existing and New (Equal Cent compared to Constant Ratio) Average Volumetric Rates (Non-CARE) [$/kWh]	Existing	New (using Constant Ratio adjustment)	% Change from Existing	New (using Equal Cent adjustment)	% Change from Existing
Summer Peak	$0.75	$0.72	-4%	$0.67	-10%
Summer Part-Peak	$0.43	$0.40	-7%	$0.36	-18%
Summer Off-Peak	$0.27	$0.24	-11%	$0.19	-29%
Winter Peak	$0.55	$0.43	-21%	$0.47	-14%
Winter Part-Peak	$0.46	$0.35	-25%	$0.39	-17%
Winter Off-Peak	$0.44	$0.33	-26%	$0.36	-18%

SCE Rate Schedule: TOU-D-4-9

Existing and New (Equal Cent compared to Constant Ratio) Average Volumetric Rates (Non-CARE) [$/kWh]	Existing	New (using Constant Ratio adjustment)	% Change from Existing	New (using Equal Cent adjustment)	% Change from Existing
Summer Peak	$0.52	$0.44	-14%	$0.45	-12%
Summer Part-Peak	$0.41	$0.33	-18%	$0.34	-16%
Summer Off-Peak	$0.30	$0.24	-20%	$0.24	-21%
Winter Peak	$0.45	$0.38	-16%	$0.38	-14%
Winter Part-Peak	$0.32	$0.26	-19%	$0.26	-20%
Winter Off-Peak	$0.29	$0.23	-20%	$0.23	-22%

PG&E Rate Schedule: E-TOU-C

Existing and New (Equal Cent compared to Constant Ratio) Average Volumetric Rates (Non-CARE) [$/kWh]	Existing	New (using Constant Ratio adjustment)	% Change from Existing	New (using Equal Cent adjustment)	% Change from Existing
Summer Peak	$0.43	$0.36	-17%	$0.36	-15%

Summer Part-Peak	$-	$-	-	$-	-
Summer Off-Peak	$0.36	$0.29	-19%	$0.30	-17%
Winter Peak	$0.33	$0.27	-18%	$0.27	-19%
Winter Part-Peak	$-	$-	-	$-	-
Winter Off-Peak	$0.31	$0.25	-19%	$0.25	-20%

END OF RESPONSE

PACIFIC GAS AND ELECTRIC COMPANY
Electric Rates Demand Flexibility OIR
Rulemaking 22-07-005
Data Response

PG&E Data Request No.:	SierraClub 003-Q001		
PG&E File Name:	ElectricRatesDemandFlexibility DR SierraClub 003-Q001		
Request Date:	May 12, 2023	Requester DR No.:	First Set
Date Sent:	May 19, 2023	Requesting Party:	Sierra Club
PG&E Witness:	Colin Kerrigan	Requester:	Leah Bahramipour Rose Monahan Nihal Shrinath

QUESTION 001

Please refer to Exhibit PG&E-01-E, ch. 1, p. 5, where it states:

"PG&E proposes that, for most of its residential rates (namely, Schedules E-1, E-TOU-C, E-TOU-D, and E-ELEC), the revenue from fixed charges be applied by means of an equal-cent-per-kWh reduction in the underlying volumetric rates, as none of the costs proposed to be collected through the fixed charge are currently time-differentiated on these rates."

According to PG&E's current tariffs for Schedules E-TOU-C, E-TOU-D, and E-ELEC, PG&E's distribution rate is time-differentiated.

Considering that PG&E is proposing to collect "Marginal Demand Distribution Costs – New Business and Non-Marginal Distribution Costs" in its proposed income-graduated fixed charge, please explain PG&E's statement referenced above.

ANSWER 001

The time-differentiation in the three listed rates is attributed to "Marginal Distribution Capacity Cost – Primary," which remains in the volumetric rate under the utility proposal.

California Environmental Justice Alliance (CEJA)

R.22-07-005:
Rulemaking to Advance Demand Flexibility Through Electric Rates – Income Graduated Fixed Charge Rate Design

CEJA Response to Data Request

To:	Sierra Club		
Recipient Name:	Nihal Shrinath Rose Monahan Leah Bahramipour	nihal.shrinath@sierraclub.org rose.monahan@sierraclub.org leah.bahramipour@sierraclub.org	
Data Request No.:	SC-CEJA-001		
Request Date:	May 12, 2023		
Due Date:	May 25, 2023	Response Date	May 23, 2023

Request 01:
Please confirm that CEJA's proposed fixed charge does not include any CARE funding to support the customer charge discount. If confirmed,

a. Please state whether CEJA understands this to result in reducing the overall residential revenue requirement.

b. Please provide CEJA's reasoning for not including CARE funding to support the customer charge discount.

Response 01, 01(a), and 01(b):
The proposal in T. Siegele's testimony sets the weighting for CARE customers to $0. Thus, no CARE funding was selected to support the customer charge. CARE funding can only be used to support CARE customers. However, the fixed charge tool does not restrict the "Average CARE funding to support cust. charge" for only discounting CARE customers' bills. If the CARE customers' fixed charge is already set to $0, then the tool applies the "Average CARE funding to support cust. charge" to the income brackets by customer charge weighting. For example, if one were to add $100 in the tool's "Average CARE funding to support cust. charge" input location for each IOU on the T. Siegele proposal, then the tool calculates that the top income bracket in SCE territory would see a *decrease* of 47.2% from the existing "most subscribed" rate. The effect on the other IOUs' rates would be similar in the tool results. The results demonstrate that the tool applies CARE funding to non-CARE customers.

This example shows that while the tool works well for estimating the volumetric rate based on a particular customer charge configuration, the tool does not calculate all possible scenarios perfectly.

California Public Utilities Code 739.1(c)(1) states “The average effective CARE discount shall not be less than 30 percent or more than 35 percent of the revenues that would have been produced for the same billed usage by non-CARE customers.” Because the billed usage includes the fixed charge, and because the T. Siegele proposal sets the CARE customers’ fixed charge to $0, the CARE discount on the total billed usage (which includes the average customer charge) will be 30-35%, as required. The CARE discount on the volumetric portion of the bill will be greater than 30-35% compared to non-CARE customers’ volumetric rates. The section 739.1(c)(1) billing requirement is not fully integrated into the tool’s calculation methods. If it were fully integrated by the tool, the revenue requirement would not be affected by the “average CARE program discount on the cust. charge” input in the tool.

Request 02:
Please confirm that when designing volumetric rates in the Fixed Charge Tool, CEJA’s proposal uses the equal cents method. Please state the reason for your choice.

Response 02:
The proposal used an “equal cents” method. The “equal cents” method provides slightly lower differentiation of volumetric tiers as compared to the “constant ratio” option. Many low-income customers are unable to shift their energy use to different times of day. Thus, an “equal cents” method of adjustment to the distribution rate is more equitable for low-income customers. If the time-of-use (TOU) volumetric rates were set so that the lowest-cost retail rates aligned with hours corresponding to the lowest-emissions rates, it could be reasonable to consider adopting the “constant ratio” method.