Docket		A.24-09-014
Exhibit Number	:	
Commissioner	:	Alice Reynolds
Admin. Law Judge	:	Nilgun Atamturk
	:	Rajan Mutialu
Public Advocates	:	Nathan Chau
Project Mgr.	:	James Lau
Witness	:	Nathan Chau

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY
ON
REVENUE ALLOCATION
IN
PACIFIC GAS & ELECTRIC COMPANY'S
2023 GENERAL RATE CASE PHASE 2

San Francisco, California
July 23, 2025

573534848

TABLE OF CONTENTS

CHAPTER 5 – REVENUE ALLOCATION

(Witness: Nathan Chau)

I. SUMMARY AND RECOMMENDATIONS

This chapter presents the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) proposals for allocating generation, distribution, and other revenue responsibilities to each of Pacific Gas and Electric Company's (PG&E) customer classes.

A central theme underpinning most of PG&E's revenue allocation (RA) proposals consists of moving collection of revenues from each class closer to "full-cost rates" on the grounds that revenue allocation differed from cost-of-service levels for the past several decades.[1] Revenues that are at "full-cost levels" refers to the revenues assigned to each class based on PG&E's marginal cost and cost of service analysis, absent of caps and floors on such revenues. To this end, PG&E proposes to move all customer classes one-fourth of the way[2] to full cost of service each year over a four-year period, in order to align with the four-year rate case cycle.[3] PG&E asserts this will mitigate the rate changes that would otherwise result from an immediate implementation of full-cost allocation.[4]

In 2025, customers continue to face an acute affordability crisis as rates have seen unprecedented increases over the last five years, which show no signs of abating. Therefore, movement to PG&E's proposed "full-cost" rates is unreasonable, notwithstanding that PG&E's proposed 4-step increments. In light of these concerns, the Commission should:

---

[1] A.24-09-014, *Pacific Gas and Electric 2023 General Rate Case Phase II, Errata to September 30, 2024 Prepared Testimony Exhibit (PG&E-3) Revenue Allocation and Rate Design* (PG&E-3), April 18, 2025, Chapter 2, at 2-2.

[2] BEV will be addressed in Chapter 8 of Cal Advocates' Prepared Opening Testimony. An exception will be made for the newly created BEVs class, for which PG&E proposes movement of one-eighth of the way to full cost for each year for four years. PG&E-3, Chapter 2, at 2-3.

[3] PG&E-3, Chapter 2, at 2-3.

[4] PG&E-3, Chapter 2, at 2-12.

- Adopt Cal Advocates' marginal costs proposals.
- Adopt PG&E's proposal for the status quo concerning Public Purpose Program (PPP) and distribution wildfire, Catastrophic Events Memorandum Account (CEMA), and Hazardous Substance Mechanism (HSM) costs in the interest of rate stability.
- Adopt a gradual transition to "full-cost" with a 3% collar on total class bundled average rates and a 6% collar on class average distribution rates.
    - The collaring proposal would not apply to the business electric vehicle (BEV) class, the reasoning for which is explained in Chapter 8 of Cal Advocates' testimony.
- Apply PG&E's 4-year glidepath approach to reach Cal Advocates' resulting revenue allocation proposal as presented in Table 5-1 by year 4.
- Order PG&E to explore opportunities for simplifying and streamlining its RA models ahead of the next GRC2.

Cal Advocates' proposed marginal costs, combined with the proposed rate collaring, is estimated to produce class bundled average rate impacts where no class will see an increase over 3% or reductions less than -3% by year 4. On the other hand, under PG&E's proposal, customers see a wider distribution of average rate impacts, between a 11.62% increase and a 17.64% reduction. The bill impact that results from PG&E's proposal is unacceptable considering the recent affordability crunch.

Table 5-1 compares the change in class bundled average rates between PG&E's and Cal Advocates' marginal cost with no caps/floors (i.e., "full-cost" rates). These results show that current residential customers rates are closer to "full-cost" as opposed to PG&E's results which indicate otherwise, and that small commercial customers (SL&P) are currently overpaying. The impacts presented in Table 5-2 represent the cumulative impact of Cal Advocates' marginal costs and rate collars at the end of the proposed 4-year transition period, assuming no changes to underlying revenues and sales. Therefore, the impact year over year will be ¼ of those presented in Table 5-2.

Table 5-1: Comparison of "Full-Cost" Class Bundled Average Rates between PG&E and Cal Advocates (Uncapped)

	$/kWh			Percentage Change from Current	
Class	**Current Rates**	**PGE**	**Cal Advocates**	**PGE**	**Cal Advocates**
Res	$0.3513	$0.3687	$0.3571	4.94%	1.66%
SL&P	$0.4129	$0.4230	$0.3748	2.44%	-9.24%
ML&P	$0.3707	$0.3366	$0.3475	-9.20%	-6.25%
B19	$0.3138	$0.2817	$0.2970	-10.21%	-5.33%
Stlt	$0.5366	$0.4419	$0.4700	-17.64%	-12.42%
Stby	$0.2100	$0.2344	$0.2143	11.62%	2.08%
AG	$0.3730	$0.3898	$0.4254	4.50%	14.05%
B20T	$0.1905	$0.1937	$0.1965	1.67%	3.17%
B20P	$0.2658	$0.2422	$0.2730	-8.86%	2.70%
B20S	$0.3112	$0.2787	$0.3027	-10.45%	-2.74%
BEV	$0.2494	$0.2898	$0.2972	16.22%	19.18%
Total	$0.3390	$0.3413	$0.3416	0.71%	0.78%

Table 5-2: Cal Advocates' Proposed Class Bundled Average Rate Compared to PG&E's Proposed Class Bundled Average Rate

	$/kWh			Percentage Change from Current	
Class	**Current Rates**	**PGE**	**Cal Advocates**	**PGE**	**Cal Advocates**
Res	$0.3513	$0.3687	$0.3548	4.94%	1.00%
SL&P	$0.4129	$0.4230	$0.4005	2.44%	-3.00%
ML&P	$0.3707	$0.3366	$0.3596	-9.20%	-3.00%
B19	$0.3138	$0.2817	$0.3043	-10.21%	-3.00%
Stlt	$0.5366	$0.4419	$0.5205	-17.64%	-3.00%
Stby	$0.2100	$0.2344	$0.2065	11.62%	-1.66%
AG	$0.3730	$0.3898	$0.3842	4.50%	3.00%
B20T	$0.1905	$0.1937	$0.1940	1.67%	1.84%
B20P	$0.2658	$0.2422	$0.2737	-8.86%	2.99%
B20S	$0.3112	$0.2787	$0.3019	-10.45%	-2.99%
BEV	$0.2494	$0.2898	$0.2974	16.22%	19.27%
Total	$0.3390	$0.3413	$0.3394	0.71%	0.13%

II. DISCUSSION OF RECOMMENDATIONS

A. Policy Background

The Commission consistently determined that a utility's underlying marginal costs should form the basis of revenue allocation and rate design starting with Decision (D.)93887 in 1981.[5] The reasoning behind this policy is that the alignment of prices with marginal costs provides the "greatest good for the greatest number" which promotes economic efficiency.[6]

Because using the marginal costs as the basis for pricing may result in over- or under-collection of the revenue requirement, the Commission uses equal percent marginal cost (EPMC) scaling to reconcile this discrepancy.[7] This reconciliation works by first calculating each classes' share of marginal cost revenues, which is derived based on that classes' marginal cost for each utility function multiplied by each classes' share of the cost drivers associated with each function. The share of total marginal cost revenues for each class, in percentage terms, then becomes the share of total revenue requirement under EPMC scaling. For example, if the residential rate group is responsible for 38% of total *marginal* generation costs, then 38% of generation *revenue requirement* is assigned to the residential rate group. Since the late 1990's, the Commission opted for separate EPMC scaling for generation and distribution functions.[8]

Cal Advocates and PG&E utilize the EPMC approach to reconcile the difference between the respective marginal cost revenue proposals and PG&E's distribution and

---

[5] See also, Levin, Robert, *Basics of Rate Design as applied to Electric Vehicles*, CPUC, June 7, 2018, at 5.

[6] D.93887, *Interim Opinion*, December 30, 1981, 1981 Cal. PUC LEXIS 1279 at *285.

[7] D.96-04-050, *Interim Opinion: Marginal Costs Revenue Allocation and Rate Design (Phase 2)*, April 10, 1996, 1996 Cal. PUC LEXIS 270, at *7, (stating "The calculation of marginal costs, and the relative responsibility for those costs among rate groups, feeds directly into the revenue allocation process. We adopt a full 'equal percentage of marginal cost' (EPMC) revenue allocation in this proceeding. This approach allocates the utility's revenue requirement on an equal basis relative to the costs imposed by each rate group on the margin. For example, if the domestic rate group is responsible for 38% of total marginal costs (energy, generation, transmission, distribution and customer), then 38% of SCE's allocated revenue requirements is assigned to that rate group.").

[8] D.97-08-056, *Opinion*, August 1, 1997, 1997 Cal. PUC LEXIS 757.

generation revenue requirement. While rates should strive to reflect cost causation principles, rate changes should be moderated, where possible, in the interest of mitigating large bill impact increases and promoting bill stability. To this end, Cal Advocates takes the additional step of applying caps and floors to mitigate disproportionate bill impacts to any one class considering the ongoing affordability crisis.

B. The Commission Should Adopt Cal Advocates' Marginal Costs, as They Are More Accurate.

PG&E proposes to move class level revenue allocation to "full-cost levels", stating that revenue allocation has remained far away from cost-of-service levels for the past several decades.[9] With this goal in mind, PG&E proposes to move all customer classes to full cost of service each year over a four-year period. It is reasonable to move rates closer to reflect underlying marginal costs. However, the Commission should adopt Cal Advocates' marginal cost proposals as they are more accurate and better reflect cost causation as summarized below.

1. Marginal Distribution Capacity Costs (MDDC)

Cal Advocates incorporates more current forecasts of inputs and load for determining primary marginal distribution costs. Additionally, PG&E did not provide enough evidence showing that line extension costs are primarily driven by the number of customers, as further described in Chapter 4 of Cal Advocates' testimony. For this reason, the Commission should reject PG&E's proposal to include such costs in its newly proposed marginal line extension costs (MLEC) and to instead retain them in its new business primary distribution capacity cost.

2. Marginal Customer Access Cost (MCAC)

Cal Advocates employs the new customer only (NCO) method for calculating the marginal customer equipment costs component of MCAC.[10] The NCO method provides

[9] PG&E-3, Chapter 2, at 2-2.

[10] See Chapter 3 of Cal Advocates' Prepared Opening Testimony for full discussion of Cal Advocates' MCAC proposal.

an accurate price signal because it captures the upfront cost of new connections, aligning the MCAC with a potential new customer's decision of whether to start utility service.

3. Marginal Energy Costs (MEC)

Cal Advocates' MEC estimates[11] are more accurate than PG&E's as they employ the ***Final*** Renewable Portfolio Standards (RPS) Adder value to set the renewable curtailment price floor. In contrast, PG&E's MECs uses Energy Division's (ED) 2024 ***Forecast*** RPS Adder value[12] to set a curtailment price floor.

4. Marginal Generation Capacity Costs (MGCC)

PG&E incorrectly applies a solar capacity factor ratio which artificially deflates its annual effective load carrying capacity (ELCC) factor. Second, PG&E calculates battery revenues using its proposed MECs which utilizes the ***Forecast*** RPS Adder value instead of the ***Final*** RPS adder value.[13]

C. The Commission Should Adopt PG&E's Proposal for PPP and Wildfire/CEMA/HSM costs.

The Commission should adopt PG&E's proposal to retain the current special allocation methods for Distribution – Wildfire, Catastrophic Events Memorandum Account (CEMA), Hazardous Substance Mechanism (HSM)[14] and Public Purpose Policy (PPP)[15] in the interest of rate stability. The current allocation methods should be locked in as such costs will minimize bundled average rate impacts for all customer classes, which is desirable given the aforementioned affordability crisis.

---

[11] See Chapter 1 of Cal Advocates' Prepared Opening Testimony for full discussion of Cal Advocates' MEC proposal.

[12] See Appendix B, Attachment 1-F at B-31 (Energy Division, *Calculation of the Market Price Benchmarks for the Power Charge Indifference Adjustment Forecast and True Up* (2023 Calculation of the Market Price Benchmarks), CPUC, October 2, 2023, at 1, available from https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/community-choice-aggregation-and-direct-access/calculation-of-mpb-2023-2024-final.pdf).

[13] See Chapter 2 of Cal Advocates' Prepared Opening Testimony for full discussion of Cal Advocates' MGCC proposal.

[14] PG&E-3, Chapter 2, at 2-5.

[15] PG&E-3, Chapter 2, at 2-15.

Wildfire costs, including distribution wildfire, CEMA and HSM, will continue to be significant, as shown in Table 5-3. Since 2022, the total wildfire costs subject to the special allocator increased by more than a factor of 2. Such costs are not expected to significantly decline in the near term.

It is more accurate to assign wildfire-related costs based on the broader equal cents/kWh allocation method given these programs provide ratepayer and public interest benefits.[16] The special allocator that PG&E proposes to retain is the result of many months of productive collaboration between parties. In PG&E's 2020 GRC 2, the Commission found that the special allocator fairly distributes these costs to all of PG&E's customers since PG&E's customers benefit from PG&E's efforts to mitigate the wildfire risk posed by its distribution network.[17] For these reasons, the Commission should retain the current allocation method for assigning such wildfire costs.

Table 5-3 Revenue Requirement Qualifying for Special Wildfire, CEMA, HSM Revenue Allocation[18]

	6/1/2022	1/1/2023	1/1/2024	1/1/2025	1/1/2026
Total	$993,991,947	$1,056,700,232	$2,426,629,394	$2,407,879,853	$2,439,178,605

Public purpose programs revenues consist of the funding relating to a number of low-income discounts, distributed energy resource (DER) incentives, and research initiatives. These programs include the California Alternative Rates for Energy (CARE) surcharge, self-generation incentive program (SGIP), tree mortality, the Electric Program Investment Charge (EPIC), and former Energy Efficiency (EE) Public Goods Charge,

[16] Publ. Util. Code § 327(a)(7). Wildfire mitigation costs provide shared societal benefits to all customers and the equal cents per kWh method reflects those benefits. The two main benefits of wildfire mitigation are reduced risk of material damage to life and property as well as reduced greenhouse gas emissions (GHG). Both benefits are non-exclusive and benefit everybody and are exceedingly critical as these risks intensify.

[17] D.21-11-016, *Decision Adopting Marginal Costs, Revenue Allocation, and Rate Designs For Pacific Gas and Electric Company*, November 19, 2021, at 93 and 94.

[18] PG&E response to Cal Advocates Data Request No. 011, Question 003, Attachment 01. Full response provided in Excel file is available at https://pgera.azurewebsites.net/Account/Login?ReturnUrl=%2F.

and Energy Savings Assistance. The CARE surcharge will continue to be allocated on an equal cents per kWh basis.[19] SGIP costs will be assigned in the manner specified by Resolution E-4926.[20]

Tree mortality will continue to be allocated by the 12 Coincident Peak method.[21] The remaining PPP costs will be allocated on percent of total revenue share with generation imputed for direct access (DA) and community choice aggregation (CCA) customers.[22] Because these allocation factors are either required by law, specified by resolution/decision, or reached via months of good faith settlement discussions, retention of such allocation methods is reasonable.

D. The Commission Should Adopt a 3% Collar on Class Total Bundled and 6% Collar on Class Distribution Average Rate Changes in Conjunction with PG&E's Proposed 4-Year Transition to Mitigate Disproportionate Bill Impacts.

PG&E justifies its proposed movement to "full-cost" marginal costs by claiming that doing so advances rate design principles of cost causation,[23] accurate price signals,[24] and support of state policy goals.[25] However, the Commission has additional rate design principles that require attention to bill impacts and affordability.[26] These additional principles should not be ignored given the recent history of unprecedented rate increases. Taking these additional factors into consideration, the Commission should minimize changes to rates to the greatest extent possible with the use of rate collaring. A rate collar

---

[19] PG&E-3, Chapter 2, at 2-5.

[20] Resolution (R.) E-4926 at 17. Allocate costs on the basis of the actual benefits resulting from the disbursement of program incentives over the previous three years in its service territory.

[21] PG&E-3, Chapter 2, at 2-5.

[22] PG&E-3, Chapter 2, at 2-5.

[23] PG&E-3, Chapter 2, at 2-3.

[24] PG&E-3, Chapter 2, at 2-3.

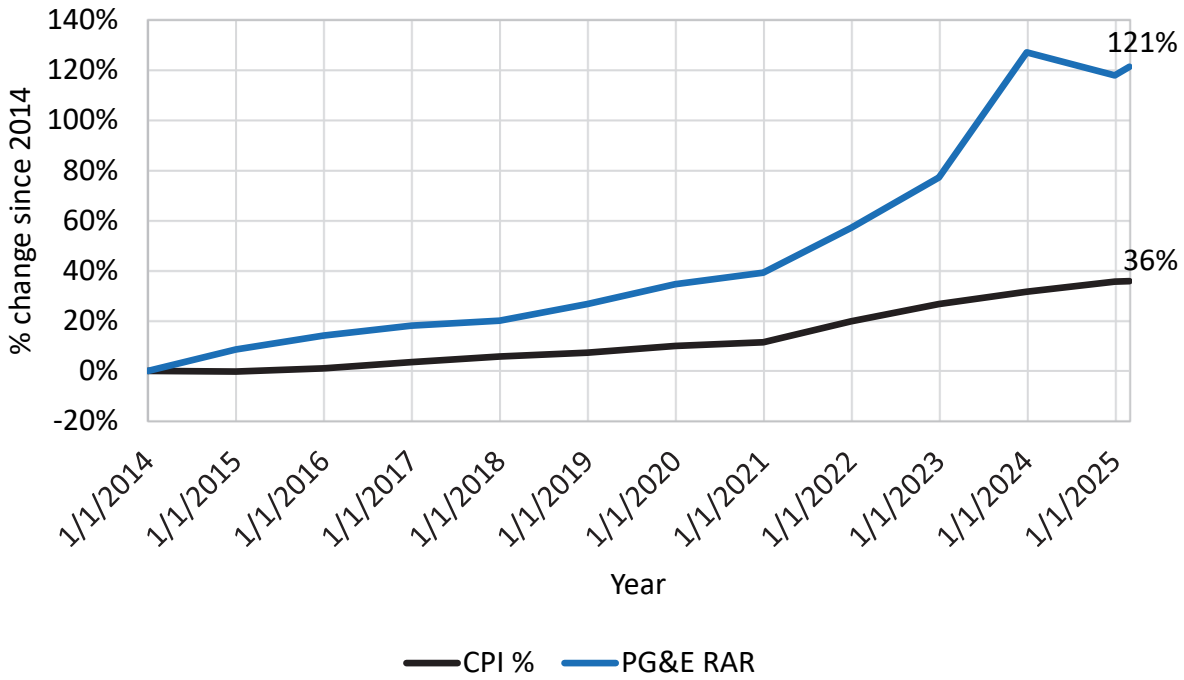
[25] PG&E-3, Chapter 2, at 3.

[26] D.23-04-040, *Decision Adopting Electric Rate Design Principles and Demand Flexibility Design Principles*, May 3, 2023, at 2.

refers to the simultaneous capping and flooring of a rate. A 3% collar on total rates restricts any class from seeing an increase larger than 3% or a reduction of less than -3% in the total bundled average rate.[27] Similarly, a 6% collar on the distribution component will restrict distribution average rates from seeing an increase larger than 6% or a reduction of less than -6%.

1. Rate Increases in PG&E's Service Territory Impose Enormous Affordability Pressures.

Figure 5-1 PGE YOY Residential Average Rate Changes Relative to Inflation



Since 2014, PG&E's residential average rate (RAR) increased by over 121% while inflation increased only 36% over the same period. A large part of PG&E's increase occurred since 2020, when PG&E first proposed a less aggressive movement to "full-cost rates." PG&E's residential average rate increased by 62% between 2020 and 2025 while the general inflation rate (which is also unprecedented) increased by 23%. The rate of

[27] Total bundled average rate refers to all the combined charges that comprise an average rate including generation, distribution and other rate components.

increase between these years far outpaces the increases over the previous 5-year period by a significant margin. Between 2015 and 2019, the residential average rate increased by a much more moderate 17%.

Table 5-4 Comparison of PG&E RAR (2020-2025)

Year (BOY)	RAR ($/kWh)	Change Since 2020	CPI Change Since 2020
2020	$0.23482	0%	0%
2021	$0.24289	3%	1%
2022	$0.27405	17%	9%
2023	$0.30918	32%	16%
2024	$0.39643	69%	20%
2025	$0.38032	62%	23%

Table 5-5 Comparison of PG&E RAR (2015-2019)

Year (BOY)	RAR ($/kWh)	Change Since 2015	CPI Since 2015
2015	$0.18938	0%	0.00%
2016	$0.19913	5%	1.37%
2017	$0.20602	9%	3.91%
2018	$0.20940	11%	6.06%
2019	$0.22100	17%	7.70%

In its 2020 GRC 2 proceeding, PG&E cited the COVID-19 pandemic and ongoing transition to TOU rates as reasons for adopting a more gradual glide path towards "full-cost" rates than the process PG&E is recommending in this proceeding.[28] Compared to that period, affordability is considerably worse as illustrated in Tables 5-4 and 5-5. These

[28] PG&E-3, Chapter 2, at 2-8.

deteriorating affordability conditions necessitate more gradualism in rate changes than what PG&E recommends for all customer classes.

2. A 3%/-3% And 6%/-6% Collars on Bundled Total and Distribution Average Rates Respectively Will Moderate Rate Impacts.

Without caps and floors, PG&E's proposals will result in wide ranging average rate impacts of between -17.64% and 11.62%.[29] Though PG&E's proposal to implement such changes over 4 years seems gradual, the rate impacts presented at the end of this 4-year transition period do not factor in possible revenue requirement increases. Increases in revenue allocation are exacerbated by increases in revenue requirements and sales decline between attrition years. To illustrate this point, assuming a 5% increase in revenues year-over-year (which is half of the increase in the bundled average rate in the period 2020-2025), and an uncapped increase of 4.9% in bundled average rates, PG&E's proposal would result in a 28% rate increase. On the other hand, assuming the same 5% increase in annual revenues but this 4.9% increase in bundled average rates is capped at 3%, the total increase in rates relative to today is mitigated to 18%. This 18% increase by year 4 can still be considered high, but it is considerably lower than the 28% increase that would otherwise result under the scenario of applying PG&E's proposals. Therefore, to mitigate rate impacts in light of the affordability crisis, the Commission should adopt Cal Advocates' proposed rate collars in conjunction with PG&E's proposal to implement changes in increments over 4 years.

3. Commission Precedent Supports Caps and Floors to Mitigate Rate Impacts of Changing Revenue Allocations.

The Commission implemented capping mechanisms in the past to mitigate rate impacts affecting rate classes as a result of changes in underlying marginal cost assumptions. In D.18-08-013, the Commission states that "in the revenue allocation context, 'caps and floors' may be used to limit the rate impact of changes to a class's

[29] See Table 5-1.

revenue allocation from one GRC Phase 2 proceeding to the next."[30] Most recently, in the Southern California Edison (SCE) GRC Phase 2 decision, the Commission adopted the settling parties' revenue allocation package which included a capping provision.[31] Similarly, in PG&E's 2020 GRC Phase 2, the Commission approved a 1.5% cap, observing that such a policy led to average rate impacts of less than one and a half percent in either a positive or negative direction for any given class.[32] The Commission should continue opting for a conservative capping policy to limit the rate impact of changes to a class's revenue allocation between this GRC.

E. The Commission Should Direct PG&E to Find Areas in Its RA Model to Simplify and/or Streamline.

PG&E should strive to reduce significant complexity of its revenue allocation model to facilitate GRC2 analysis going forward. At its current form, PG&E's model is highly complex and cumbersome. The model is a behemoth, comprised of 23 spreadsheets in total which all need to be opened simultaneously to operate. To test various marginal cost scenarios, parties need to modify 1,829 data points located in the "marginal cost table" portion of PG&E's revenue allocation model. Even before inputting up to 1,829 data points, parties must first use separate models to convert marginal costs to these 1,829 data points before being able to copy and paste the outputs into the marginal cost table. This cumbersome process has created numerous issues (discussed below) and made it difficult to audit the reasonableness of the results computed. By comparison, the modeling process is much simpler in SCE's and San Diego Gas & Electric's (SDG&E) RA models, where just a smaller set of marginal

[30] D.18-08-013, *Decision on Pacific Gas and Electric Company's Proposed Rate Designs and Related Issues*, August 17, 2018, at 167, Conclusions of Law No. 9.

[31] D.22-08-001, *Decision Adopting Five Uncontested Partial Settlements Resolving Most Issues for Southern California Edison Company's Phase 2 General Rate Case*, August 9, 2022, at 45, Ordering Paragraph (OP) No. 1.

[32] D.21-11-019 at 93. Given that the approved marginal costs and the RA settlement together lead to average rate impacts of less than one and a half percent in either a positive or negative direction for any given class, the rate impacts of the RA settlement are reasonable. The actual cap proposed by the RA settlement is 1.5 percent. D.21-11-019 at 84. These provisions approved in OP No. 15. D.21-11-019 at 168.

costs need to be inputted to run the model and does not require more than 10 spreadsheets to be open at a time. Below are some examples of issues with the model for this proceeding:

- The workpapers that converted the marginal costs to useable form for RA purposes did not provide the same number of data points that correspondingly matches what is in the MC input table. It is unclear whether this mismatch leads to different results.
- Simply changing the values in the MC input table crashed the model, creating #N/A issues throughout the 23 spreadsheets even though no cells were moved and no formulas were changed.[33]

The discovery process uncovered errors and glitches, primarily through follow-ups to Data Request responses. Three examples are highlighted below of instances when such errors were discovered before being promptly corrected.

- January 31 – negative delivered billing determinants assumed to be corrected in April 18th errata.
- May 27 – Capping formulas were missing references to the new BEV schedules which was causing errors to capping mechanisms.
- May 27 – #N/A error from PG&E's April 18th errata update and a mismatch in the number of required MC table inputs and converted MC.

Constantly chasing new corrections as they come makes it challenging to verify the true impact of both PG&E's and Cal Advocates' proposals over the course of this proceeding to date. The Commission should direct PG&E to investigate ways to streamline and simplify modeling and retrieval of RA results.

III. CONCLUSION

The Commission should employ Cal Advocates' marginal cost proposals to inform "full-cost" revenue allocation targets and apply collars of 3% on generation and 6% on distribution rates in conjunction with PG&E's 4-year glidepath to mitigate disproportionate bill impacts in light of concerning affordability trends.

[33] Whenever there is a blank value in any of the 1800+ marginal cost inputs, sampling populating these spaces with "$0" after the fact does not correct the model. All 23 spreadsheets needed to be closed and reopened and all marginal cost inputs needed to be refreshed.

APPENDIX A

Qualifications of Witness

QUALIFICATIONS AND PREPARED TESTIMONY
OF
NATHAN CHAU

Q.1 Please state your name and address.

A.1 My name is Nathan Chau and my business address is 505 Van Ness Avenue, San Francisco, California.

Q.2 By whom are you employed and what is your job title?

A.2 I work in the Electricity Pricing and Customer Programs Branch of Cal Advocates as a Regulatory Analyst.

Q.3 Please describe your educational and professional experience.

A.3 I hold a Bachelor of Science degree in Applied Economics from the University of the Pacific. My degree included coursework in finance, economics, and econometrics that I find relevant to this case. Since joining the Commission in April 2015, I have actively participated in a number of rate cases such as SDG&E's General Rate Case Phase II (A.23-01-008), PG&E's General Rate Case Phase II (A.16-06-013), the Time-of-Use Order Instituting Rulemaking (R.15-12-012), the Application on SB 350 Transportation Electrification Proposals (A.17-01-021) and the Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs (R.20-08-020). I also worked as project coordinator and witness in PG&E's General Rate Case Phase II (A.19-11-019).

Q.4 What is your area of responsibility in this proceeding?

A.4 I am project coordinator and author for Chapters 2 and 5 on MGCC and Revenue Allocation in Cal Advocates' Prepared Testimony in this proceeding.

Q.5 Does that complete your prepared testimony?

A.5 Yes, it does.