

**PACIFIC GAS AND ELECTRIC COMPANY
Affordability Order Instituting Rulemaking
Rulemaking 18-07-006
Data Response**

PG&E Data Request No.:	ED 040-Q001		
PG&E File Name:	AffordabilityOIR_DR_ED_040-Q001		
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PG&E Witness:	Various	Requester:	Bridget Sieren-Smith

SUBJECT: 2024 SB 695 REPORT IOU RECOMMENDATIONS TO LIMIT COST AND RATE – INCREASE (ELECTRIC AND GAS IOUs) – PART II

QUESTION 001

This data request is issued regarding proposed recommendations of the electric and gas investor-owned utilities (IOU) to limit cost and rate increases consistent with the state’s energy and environmental goals for reducing greenhouse gases, pursuant to Public Utilities Code Section 913.1 which requires the utilities to:

“...study and report to the commission on measures that they recommend be undertaken to limit costs and rate increases.”

In preparing your utility’s response, the IOU should be as specific as possible in identifying and quantifying specific potential cost savings initiatives.¹

The data provided in the response will be included in its entirety in an appendix to the 2024 SB 695 Report.

ANSWER 001

Rate Design

PG&E understands how important it is to our customers that we keep monthly electricity and gas costs affordable while maintaining safe and reliable service.

Since the issuance of Decision on Residential Rate Reform (D.15-07-001) almost a decade ago, the energy sector in California has seen rapid changes, including technology innovations, new market entrants and expanded customer choice. Further, the state has continued to pursue efforts consistent with its vision for a clean electric future for California that includes a path to a 100 percent greenhouse gas (GHG)-free electricity future (as evidenced by the passage of SB 100 in 2018). Critical to this future

¹ Data reflecting rates trends, cost recovery mechanisms, types of cost recovery proceedings, and other data non-specific to studying and reporting on measures recommended to limit cost and rate increases should not be included, except to the extent that such data directly supports the recommendations.

is a robust electric network that enhances reliability and safety, is affordable, and allows all Californians to equitably benefit from and finance this clean energy future.

As California approaches a time in which nearly all electrons are green and the “average” electric customer becomes harder to define, enhancing and maintaining the network that delivers those green electrons to all Californians becomes more and more important. To support this clean electricity future, in which customers have more choice than they had in the past, the rate architecture needs to continue to evolve and ultimately transition to a structure under which customers pay for the network separately from paying for the electrons. Great progress has been made in California over the past five plus years through the Commission’s leadership on residential rate reform. Reducing the emphasis on tiered pricing and beginning the transition toward more cost-based TOU rates are two significant accomplishments thus far resulting from the Commission’s Residential Rate Reform proceeding.²

In addition, the ongoing Demand Flexibility proceeding offers the promise of implementing residential rate designs with monthly fixed charges that reduce volumetric rates, encourage electrification, and help achieve the state’s clean air policy goals. Relying almost exclusively on volumetric rates for residential customers, even if differentiated by time-of-use (TOU), is not sustainable, as such designs do not reflect the way actual costs are incurred. In the absence of reasonable fixed charges that collect at least a portion of utility fixed costs, higher-usage customers are forced to pay disproportionate shares of PG&E’s fixed costs and thus subsidize lower-usage customers. Moreover, an inclining block tiered rate structure exacerbates these subsidies from higher-usage customers to lower-usage ones.

Such rate structures, where volumetric electric rates (and, particularly, volumetric upper-tier rates) end up being set far in excess of the actual marginal costs of generating and delivering electricity, provide economically inefficient price signals to customers. They also run counter to the public policy objective of encouraging building electrification via customers switching from appliances/equipment that use natural gas to those that use electricity in order to reduce emissions. Customers facing the choice between gas or electric appliances/equipment that provide the same service (for example, a residential household deciding whether to heat its home with a gas furnace or with an electric heat pump, or to obtain its hot water with a gas water heater or an electric heat pump water heater) will be less likely to choose the electric option if electric volumetric rates are set at artificially high levels – since doing so will lead to a much higher bill. Furthermore, a growing number of municipalities are passing ordinances requiring new residential and business construction to use electricity rather than natural gas for space heating, water heating and cooking.³ Customers affected by these new ordinances may see much

² Two fairly recent Commission decisions -- one approving PG&E’s new pro-electrification TOU rate with a fixed charge, Schedule E-ELEC (which PG&E began offering to customers on December 1, 2022) and the other eliminating the high-usage surcharge of PG&E’s tiered Schedule E-1 rate (which PG&E implemented on January 1, 2023) – represent beneficial rate reforms that result in more cost-based rates and help achieve the state’s goals of decarbonization through electrification.

³ Such ordinances have been recently enacted in Berkeley and on March 16, 2023, the Bay Area Air Quality Management District (BAAQMD) Board voted to adopt a zero-NOx standard for new residential and commercial space and water heaters. PG&E understands that the legal status of municipal construction ordinances is pending as of the date of this data response.

higher than expected bills due to being forced to pay high volumetric electric rates, risking customer backlash against such ordinances.

For electrification to succeed, it is critical to reduce volumetric electric rate levels to achieve the desired emissions reductions. This can be accomplished via a number of changes to electric rate designs, summarized in bullet form below (and further described in the following three sub-sections):

- Introducing and/or increasing fixed charges to collect a greater, more reasonable, portion of utility fixed costs, resulting in lower volumetric electric rates;
- Further reforming tiered rate structures for electricity to either eliminate non-cost-based tiered prices or, at minimum, reducing the magnitudes of the price differentials between tiers; and
- Further reforming the compensation provided to customer-generators with on-site solar systems via Net Energy Metering (NEM).

Fixed Charges Coupled With Lower Volumetric rates.

As noted above, a critical step to fair and equitable rates is the implementation of a fixed charge for residential customers to recover fixed costs that do not vary with usage. In 2013, the Legislature enacted Assembly Bill (AB) 327, which permitted a modest fixed charge subject to an inflation-adjusted cap. More recently, in 2022, the legislature enacted AB 205, which eliminated the cap on the fixed charge and, instead, authorizes the Commission to implement an income-graduated fixed charge (IGFC) with at least three income categories wherein customers with higher incomes pay higher fixed charge amounts.⁴ AB 205 also authorized the Commission to do away with the “Composite Tier 1 Methodology” it has utilized historically for designing tiered rates. This methodology has the effect of restricting the use of fixed charge revenues for the sole purpose of reducing Tier 1 rates while leaving upper-tier rates unchanged – which acts as a barrier to the achievement of the state’s electrification goals by severely limiting the ability of such rate structures with fixed charges to incentivize customers to purchase electric appliances/equipment.

PG&E supports having a fixed monthly charge in residential rates, and applauds the further rate reforms enacted in AB 205. Residential fixed charges are consistent with rate design policies adopted by public utility regulators around the country and are similar to the fixed monthly charges that have been in all of PG&E’s non-residential rates for decades. The addition of a fixed charge to residential rates will result in a more cost-based rate design that will spread costs to customers in a more equitable way based on the fixed costs to serve them. More importantly, the resulting volumetric electric rates will be lower and closer to marginal costs of service, providing critical incentives for customers to switch to cleaner electric appliances and equipment. PG&E is actively participating now in the Commission’s Demand Flexibility OIR proceeding (R.22-07-005), wherein the details of how the IGFC will be designed and implemented will be determined. Per AB 205, the Commission must issue a final decision authorizing a fixed charge for residential rates no later than July 1, 2024.

⁴ AB 205 also authorized the Commission to design tiered rates without requiring tiered rate ratios.

Eliminating Steeply-Tiered Residential Rates

Since 2010, PG&E has been advocating for fewer tiers in residential rates, along with smaller price differentials between tiers. In July 2015, in D.15-07-001, the CPUC adopted a multi-year “glide path” trajectory that represented an important step in that direction, reducing the number of tiers and gradually reducing the ratio of the Tier 2 rate to the composite Tier 1 rate.⁵ Currently, as of January 1, 2024, the ratio between PG&E’s Tier 2 and composite Tier 1 rates is set at the 1.25-to-1 final glide path ratio directed by D.15-07-001.⁶ But, while an improvement over the situation that existed in 2015, a 1.25-to-1 ratio still over-charges customers for usage above their baseline amount, while subsidizing customers whose usage stays in Tier 1. As noted above, this will disincentivize customers from switching to cleaner electric appliances, since such purchases will likely drive electric usage of Tier 1 users into the higher-priced Tier 2. One noteworthy positive development occurred, though, when, on January 1, 2023, PG&E was able to eliminate its third (high-usage surcharge) tier in compliance with D.21-03-003. The elimination of the high-usage surcharges helped mitigate, to some extent, the disincentive for customers to electrify their homes that is inherent in inclining-block tiered rates.⁷

Rate structure and compensation for Net Energy Metering (NEM)

The NEM tariff allows customers with on-site generation (primarily rooftop solar photovoltaic (PV) equipment) to receive a retail-based credit (for generation plus transmission and distribution rates less certain public purpose program and other non-by-passable charges) for the energy they send out to the grid to offset the cost of their consumption within the month and within an annual true-up period.⁸ This results in residential NEM customers being compensated over \$0.30/kWh for electricity that, according to the CPUC’s 2022 Avoided Cost Calculator, is worth approximately \$0.05/kWh. This 20+ cent premium is paid by non-participating customers, resulting in a cost shift. As of December 31, 2023, the estimated annual NEM cost shift for PG&E customers reached \$3.6 billion after an \$869 million increase over the previous year, due to both 2023 rate increases and accelerating adoption. The December 2022 NEM Decision (D.22-12-056) replaced NEM with a “Net Billing Tariff (NBT),” which instead compensates all exported electricity according to CPUC’s Avoided Cost Calculator. This, combined with other changes, is estimated to reduce the cost shift from future NBT eligible installations by about 50%. NEM 2.0 eligibility ended on April 15, 2023.

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- ⁵ The Tier 1 rate applies to usage between zero and the customer’s baseline amount, while the Tier 2 rate applies to usage above baseline. The composite Tier 1 rate is calculated by adding any revenues from a fixed charge or a minimum bill amount to Tier 1 energy revenues, then dividing by Tier 1 sales. Thus, the composite Tier 1 rate exceeds the nominal Tier 1 rate actually paid by customers for Tier 1 kWh usage.
 - ⁶ Because the composite Tier 1 rate exceeds the actual Tier 1 rate, the resulting nominal rates have a ratio that exceeds 1.25-to-1.
 - ⁷ It is worth noting that Schedule E-TOU-C, the default TOU rate schedule approved by the CPUC, while providing better price signals to customers to shift their electric usage from high-cost peak hours to low-cost off-peak ones, still has a two-tiered structure that disincentivizes customers from switching to electric appliances.
 - ⁸ The 2016 NEM successor tariff decision, Decision (D.)16-01-044, required customers to pay certain non-bypassable charges on all usage not offset by on-site generation, reducing some of this cross-subsidization.

PG&E received an unprecedented number of applications between D.22-12-056 and the sunset date from customers and installers seeking to interconnect under the legacy tariff. Between the backlog of NEM 2.0 eligible applications that will continue to interconnect over the next three years and the significant residual cost shift resulting from NBT installations, while the burden on non-participants will grow at a slower pace than it has historically, NEM/NBT will continue to be a source of affordability pressure for the foreseeable future.

PG&E believes that these residential rate design and NEM reforms can have a beneficial near-term impact on its cost of delivering safe and reliable gas and electric services to its customers, as well as more fairly charging customers rates which better reflect PG&E's cost to serve them – all the while incenting building electrification policies by making electric service more affordable to higher-usage customers.

Waste Elimination Efforts

PG&E is transitioning to a new way of working: adopting a Lean Operating System designed to drive more effective and responsive decision-making, reduce the challenges many of us face in our day-to-day work, and deliver better outcomes for our customers. Waste Elimination is one of the five basic plays of a Lean Operating System. Waste Elimination is defined as removal of non-value-added work from a process allowing PG&E to do more with the same resources and/or deliver more value to our customers (or what they expect and value from PG&E). The waste elimination program oversees projects that are working to eliminate specific types of Lean Waste such as transportation, inventory, motion, waiting, over production, over processing, defects, and skills. The focus on Waste Elimination at PG&E has two important goals: 1) Building organizational knowledge to enable employees to see waste and eliminate it in their day-to-day work and 2) Driving waste elimination projects and programs that realize improvement benefits. Below are some of the waste elimination projects PG&E has in progress. These projects will continue to be a focus for incremental improvement in 2024, where possible:

New Customer Connections: PG&E's New Customer Connection initiative conducted an end-to-end value stream mapping session with stakeholders to assess the potential areas of improvements. The following improvements were discovered and implemented:

- Intake: 1) Reduce waiting and over processing 2) Implement standard work for project management 3) Focus on shovel-ready projects.
- Designing and Estimating: 1) Better utilize talent and reduce overtime 2) Cut defects in design and approval process 3) Reduce design work that won't be paid for.
- Overall Cycle Time: 1) Stop non-ready work before costly phases 2) Partner with California Business Industry Association to improve cycle time 3) Reduce queue by >1,000 projects YTD. These actions have driven a 60% improvement in on-time delivery in 2023.

Vegetation Management: 2023 Cost Reduction ~\$300M. This was achieved through bundling work by location instead of making several trips, standardizing unit rate contracts, and focusing on meeting quality standards the first time.

Undergrounding: 2023 Cost Reduction ~\$70M. This was achieved by reducing the trench depth from 36" to 30" and doing longer cable runs, as well as fewer boxes per mile. Additionally, we expanded the use of internal workforce with contractor base with specialty skills.

PG&E is continuing to evolve the waste elimination effort in 2024 and will look for further opportunities to make our company more efficient and affordable.

Securitization

PG&E has identified and evaluated two alternative debt financing mechanisms. It should be noted that these alternative mechanisms would not be used to increase the proportion of debt in PG&E's capital structure, since doing so would raise the cost of equity and not reduce the overall cost of financing.

PG&E issued securitized debt in 2021 and 2022, and plans to issue several more series through 2024, and potentially thereafter. PG&E anticipates that the interest cost savings to customers could eventually be on the order of about \$50 million annually. However, there is a limit to the total amount of securitized debt that can be outstanding at any one time, and as that limit is approached the credit ratings of securitized debt fall and the cost advantage may not be realized.

PG&E may also consider capital leases as another alternative to reduce financing costs. Generally, leasing is not a more cost-efficient form of debt financing for PG&E, but there may be specific transactions in which leasing may present a lower cost alternative. PG&E will evaluate any opportunities that appear promising.

Securitization of Wildfire O&M Costs

PG&E supports Commission authorization to securitize wildfire mitigation-related O&M costs as an additional financial tool to mitigate rate impacts. The Commission previously has authorized securitization of wildfire capital expenditures based on the economic benefits (i.e., customer cost reduction) as the sole standard of measure for the value of the proposal for securitization. However, securitizing wildfire mitigation-related O&M costs may result in other important customer benefits, such as promoting rate stability or reducing near-term costs (e.g., to mitigate rate impacts of vegetation management until ongoing system hardening work can be completed).

PG&E is exploring ways to use existing statutory mechanisms to securitize wildfire mitigation-related O&M costs as well as potential legislation to minimize electric bill rate spikes for ratepayers by providing financing options for an electric utility corporation to help reduce near-term costs and promote rate stability associated with wildfire mitigation efforts.

Self-insurance Program

In its 2023 GRC, for its wildfire liability insurance, PG&E proposed a hybrid approach of part self-insurance and part commercial policies with a goal of shifting to 100% self-insurance by the end of the 2023 GRC cycle (2026). (See Exhibit (PG&E-9) Chapter 3, pp. 3-28 through 3-38 for a description of the proposal).

In October 2022, PG&E, Cal Advocates, and TURN (all interested parties) filed a joint settlement agreement regarding PG&E's wildfire liability insurance, which was approved in January 2023. Some key terms of the settlement agreement are: (1) PG&E's wildfire liability insurance will consist of self-insurance only beginning in 2023; (2) wildfire self-insurance will be funded at \$400 million for 2023; (3) for each year during 2024-2026, the self-insurance funding may be adjusted annually to reflect prior year's claims activity and to limit total available self-insurance to a maximum of \$1 billion; (4) PG&E is authorized to collect the actual costs of claims incurred less a 5 percent deductible of the annual claims total (up to a total \$50 million deductible) that is not subject to recovery in rates; and (5) PG&E will credit any investment proceeds earned on customer-funded self-insurance amounts back to customers. (See D.23-01-005, Appendix 1, Settlement Agreement Between Pacific Gas and Electric Company, The Utility Reform Network, and The Public Advocates Office at the California Public Utilities Commission on Wildfire Liability Insurance Issues ("Wildfire Liability Insurance Settlement")).

There are numerous benefits of self-insurance for wildfire liability instead of traditional commercial policies. First, unlike commercial policies where the premium is paid whether the coverage is used or not, unused self-insurance remains available for use in future years. This can result in significant customer benefits compared to commercial insurance in years when PG&E's claims are low. Additionally, unlike commercial policy premiums that are typically due upfront at the beginning of a policy period, payments from self-insurance to satisfy claims often occur years after a wildfire event, allowing the self-insurance funding to be collected over time. Finally, PG&E will avoid paying taxes and fees associated with the purchase of commercial insurance. (D.23-01-005, FOF 7).

As a result of the benefits discussed above, initial customer funding for insurance is significantly lower under the self-insurance framework adopted under the Wildfire Liability Insurance Settlement compared to the prior status quo of purchasing commercial insurance. For example, for 2023, the approved funding for self-insurance is \$400 million, which is \$307 million less than PG&E's original GRC forecast. The total revenue requirement [and therefore the potential for total savings] under the adopted self-insurance approach is dependent on the total amount of claims incurred for the 2023 GRC period. (See D.23-01-005, FOF 5). In a best-case scenario, where no claims are incurred over the four-year GRC period, the self-insurance framework could result in customer savings of up to \$1.8 billion dollars compared to commercial insurance. In a worst-case scenario, for example where PG&E experiences full-limit, \$1 billion losses or greater in each year of the 4-year GRC period, the self-insurance framework could cost more than commercial insurance by up to \$1.125 billion. (See Joint Motion of PG&E, TURN and Cal Advocates for Expedited Approval and Adoption of the Attached Settlement Agreement on Insurance Related Issues and D.23-01-005, Appendix B, Illustrative Calculation Reflecting the Worst-Case Scenario – Cost Recovery for Undercollections at the End of the 2023 GRC Period.) In approving the Wildfire Liability

Insurance Settlement, the Commission found that “In any year during the 2023-2026 period, PG&E’s wildfire liability insurance cost through self-insurance pursuant to the Settlement is likely to be less than the cost of commercial insurance for \$1 billion of coverage.” (D.23-01-005, FOF 6).

For the year 2023, there were no accrued wildfire claims and PG&E expects to maintain the current \$400 million revenue requirement for the year 2024. Further details will be provided in PG&E’s Wildfire Self-Insurance Advice Letter filed on April 1, 2024.

Outside Sources of Funding

PG&E supports outside sources of funding that can bring bill relief to customers, especially those most vulnerable. PG&E supported and partnered with the CPUC and the California Department of Community Services and Development to implement the California Arrearage Payment Program (CAPP) program for qualified customers in arrears. These actions implemented AB 135 from 2021 and AB 205 from 2022.

In 2024, PG&E continues to look for opportunities to provide rate relief for our customers. PG&E supports affordability solutions through non-traditional funding such as: 1) a legislatively proposed climate bond to fund clean vehicles, grid upgrades, wildfire mitigation, etc.; 2) funding capacity upgrades through the low carbon fuels standard (LCFS) program; and 3) using state directed Inflation Reduction Act dollars toward rate relief. PG&E is committed to working with stakeholders on these proposals and others to find opportunities to alleviate rate pressures on our customers.

In addition, PG&E is pursuing Department of Energy (DOE) grants through the Grid Resilience and Innovation Partnership (GRIP) program. In January 2024, as both a lead applicant and in partnership with other entities such as other IOUs, state agencies, and non-profits, PG&E submitted 12 concept papers for DOE to evaluate. These projects have the potential to bring hundreds of millions of federal dollars to California to fund the State’s energy infrastructure needs and advance new technologies. The projects range in scope from creating additional grid resilience through expanded transmission capacity and reconductoring projects, to vehicle to grid integration technology, and solutions to accelerate renewable energy interconnections. PG&E will submit its applications in spring 2024, with additional opportunities to pursue GRIP dollars in the coming years.

PG&E is also in the application process for a multi-billion-dollar loan through the DOE Loan Program Office’s Title 17 Clean Energy Financing Program. The loan, if approved, would fund a large portion of PG&E’s electric capital investment through 2031. By reducing PG&E’s cost of capital through lower interest rates, the loan would generate savings for customers.