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# California State Assembly

## UTILITIES AND ENERGY



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Wednesday, March 6, 2024  
1:30 p.m. -- State Capitol, Room 437

## OVESIGHT HEARING

### *Affordability Concerns in the Electric Sector: Current Cost Drivers and Implications of Future Trends*

In November 2023, the California Public Utilities Commission (CPUC), approved Pacific Gas and Electric Company's (PG&E) rates for 2023-2026.<sup>1</sup> The decision, which authorized \$13.5 billion for PG&E's 2023 revenue requirement, marked a 10.7% increase over the previous year.<sup>2</sup> This was one of the largest rate increases in the company's history, driven – according to the CPUC – by inflation and electric line undergrounding,<sup>3</sup> and marking PG&E as the “most expensive power provider” in the state, surpassing San Diego Gas & Electric (SDG&E).<sup>4</sup> In January 2024, PG&E requested an additional increase to pay for billions of dollars in overspending on vegetation management and emergency response from 2020-2022.<sup>5</sup> If approved, alongside other pending requests, PG&E is reported to have estimated customer rates will go up on average \$50 in 2024 alone.<sup>6</sup> According to the California Public Advocates Office (PAO), PG&E's electric rates have more than doubled over the last decade.<sup>7</sup> These high rates are coinciding with increased electricity usage throughout the state, as high heat events are driving more air conditioning and climate goals are prompting greater home electrification (e.g., electric vehicle charging). The result of these increasing rates alongside increasing usage is an unaffordable electric bill.

<sup>1</sup> D. 23-11-069; *Decision on Test Year 2023 GRC for PG&E*; A. 21-06-021; Nov. 17, 2023.

<sup>2</sup> Pg. 4, D. 23-11-069; *Ibid.*

<sup>3</sup> CPUC Press Release; CPUC Prioritizes Safety, Reliability, and Affordability in PG&E Rate Case.” November 16, 2023; <https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-prioritizes-safety-reliability-and-affordability-in-pge-rate-case-2023>

<sup>4</sup> Van Derbeken, Jaxon; “PG&E becomes California's most expensive power provider;” NBCBayArea; January 8, 2024; <https://www.nbclosangeles.com/investigations/national-investigations/pge-rate-hike-california/3302833/#:~:text=According%20to%20an%20accounting%20PG%26E,than%20anyone%20else%20in%20California.>

<sup>5</sup> Van Derbeken, *Ibid.*

<sup>6</sup> Inclusive of the November 2023 increase, and accounting for when prior rate increases expire. Van Derbeken, *Ibid.*

<sup>7</sup> ~127% increase; PAO slidedeck “Q4 2023 Electric Rates Report;” January 19, 2024; <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240119-caladvocates-q4-2023-quarterly-rate-report.pdf>

In January 2024, the U.S. Census Bureau conducted a Household Pulse Survey to quickly collect data on emergent social and economic issues throughout the nation, with data disseminated in near real-time to inform policy actions. The Survey found roughly a quarter of Californians report being “unable to pay energy bills.”<sup>8</sup> This mirrors findings from the PAO that showed as of November 2023, roughly 22% of PG&E customers and roughly 26% of SDG&E customers were in arrears, with the average amount owed \$550 and \$737, respectively.<sup>9</sup> Electricity plays a central role in ensuring comfort, safety, sustenance, sanitation, and connectivity. Having roughly 1 in 4 Californians electricity-insecure, or on the cusp of disconnection, is untenable.

Unfortunately, future electricity cost projections offer little relief that these trends will subside. According to a May 2023 study by Kevala, Inc. released by the CPUC, “up to \$50 billion... in investments are needed by 2035” for distribution grid upgrades.<sup>10</sup> The May 2023 CAISO transmission plan estimates the need for approximately \$7.3 billion in new investments over that same period for transmission infrastructure.<sup>11</sup> Stretch the estimates to 2045, and the transmission costs alone are thought to be over \$30 billion.<sup>12</sup> In February 2024, the CPUC adopted its preferred portfolio of generation resources needed to meet our decarbonization goals in 2035.<sup>13</sup> The decision adopted over 56 gigawatts (GW) of new resources,<sup>14</sup> the costs of which are dependent on future supply chain and market constraints. These distribution, transmission, and generation costs sum into the tens of billions of dollars. However, these costs are *in addition to* costs for wildfire or other emergency response and mitigation efforts the utilities have been expensing over the last few years, which are only beginning to be absorbed into rates, as evidenced by PG&E’s recent increases.

The Legislature has on numerous occasions sought to address these trends, most recently with a pair of bills that provided over \$2 billion in relief for customer energy debt accrued during the pandemic.<sup>15</sup> Over the last few years the CPUC has held workshops on rates and affordability, posing solutions to try to address these forecasted increases.<sup>16</sup> This committee has held annual hearings focused on utility bill affordability, most recently focused on the

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<sup>8</sup> ~26% of Californians; U.S. Census Bureau, Household Pulse Survey, Phase 4.0, [https://www.census.gov/data-tools/demo/hhp/#/?measures=ENERGYBILL&s\\_state=00006&periodSelector=](https://www.census.gov/data-tools/demo/hhp/#/?measures=ENERGYBILL&s_state=00006&periodSelector=)

<sup>9</sup> Inclusive of both electric and natural gas customers; pg. 4; PAO slidedeck “Q4 2023 Electric Rates Report;” January 19, 2024; <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240119-caladvocates-q4-2023-quarterly-rate-report.pdf>

<sup>10</sup> Pg. ES-6, Kevala, “Electrification Impacts Study Part 1: Bottom-Up Load Forecasting and System-Level Electrification Impacts Cost Estimates,” May 9, 2023; <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M508/K423/508423247.PDF>

<sup>11</sup> Pg. 3, CAISO, *2022-2023 Transmission Plan*, Revised Draft, May 10, 2023; <http://www.caiso.com/InitiativeDocuments/Revised-Draft-2022-2023-Transmission-Plan.pdf>

<sup>12</sup> Pg. 3, California Independent System Operator, *2022 20-Year Transmission Outlook*; May 2022; <http://www.caiso.com/InitiativeDocuments/20-YearTransmissionOutlook-May2022.pdf>

<sup>13</sup> D. 24-02-047; CPUC; *Decision Adopting 2023 Preferred System Plan and Related Matters, and Addressing Two Petitions for Modification*; R. 20-05-003; February 20, 2024. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M525/K918/525918033.PDF>

<sup>14</sup> Table 4, pg. 68; D. 24-02-047, *Ibid*.

<sup>15</sup> AB 135, Committee on Budget, Chapter 85, Statutes of 2021 and AB 205, Committee on Budget, Chapter 61, Statutes of 2022.

<sup>16</sup> CPUC *En Banc* on Energy Rates and Costs, February 24, 2021, <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/en-banc-rates-and-costs>; and CPUC *En Banc* on Affordability – Evaluating Innovative Proposals for Cost Containment and Customer Protections, February 28—March 1, 2022, <https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-to-hold-hearing-on-affordability-of-essential-utility-services-2022>

volatile natural gas prices during winter 2022-2023.<sup>17</sup> During those hearings, members of the committee consistently voiced concerns about the unaffordable energy bills many Californians are facing. While these past efforts have aided in the awareness of, and relief to, mounting bills, much remains to be done to lessen the impact of forthcoming costs.

*The purpose of this hearing is to look back at what has led to our current high rates, as well as look ahead at what opportunities may exist to help bend down the curve on escalating rates. The hearing will serve as a follow-up to past affordability hearings held by this committee, with a particular emphasis on what creative solutions may be available to ease rate pressure today. The hearing will also provide the annual legislative update by the CPUC and PAO required by law. While the breadth of both organizations' work is large, they have been asked to focus their comments on electric bill affordability. Subsequent hearings of this committee will invite the CPUC and PAO back to comment upon other work within their portfolios. In the meantime, their annual reports will be available to provide additional insight into their efforts over the past year.*

This hearing's scope, while significant, is narrow. While a comprehensive evaluation of total energy costs should include other fuels (natural gas, gasoline, propane), for ease of discussion these cost drivers will be a topic for subsequent hearings. Moreover, this hearing will focus on impacts to customers of the large investor-owned utilities (IOUs),<sup>18</sup> as mandates are often borne by them first. However, unaffordable energy prices are impacting customers of publicly owned utilities (POUs), Community Choice Aggregators (CCA), rural cooperatives, and even Electric Service Providers (ESPs) alike. These electric entities have shared with the committee how cost escalations in the market have driven up procurement costs for new generation, construction costs for needed infrastructure, and purchase prices for necessary equipment. These costs are ultimately borne by their ratepayers. So while the hearing will focus on IOU costs, this discussion will act as a microcosm of these larger trends occurring throughout California's unique load-serving entities. Along with the CPUC and PAO, the State Auditor, an academic, an IOU, a ratepayer advocate, and an energy developer have been invited.

***How Did We Get Here? Current Cost Drivers.*** California's IOU electric rates are among the highest in the country.<sup>19</sup> According to a 2023 report by the California State Auditor, California has the seventh-highest average electricity rates and the 10<sup>th</sup>-highest average residential natural gas prices of any of the states.<sup>20</sup> It is important in this discussion to compare and distinguish between rates – the amount paid by customers for each unit (e.g., volume) of electricity consumed – and bills – the total amount due to be paid each month by a customer. One informs the other; but they are not the same. While California's rates are high, the actual electric bill the average residential and industrial customer pays are below the

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<sup>17</sup> CPUC *En Banc*, “Current Gas Market Conditions & Impacts of Gas Prices on Electricity Markets”, February 7, 2023. <https://www.cpuc.ca.gov/events-and-meetings/en-banc-2023-02-07>

<sup>18</sup> Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and Southern California Gas (SoCalGas)

<sup>19</sup> Borenstein, S., Fowlie, M., and Sallee, J., “Designing Electricity Rates for an Equitable Energy Transition,” *Energy Institute at Haas* working paper WP 314, February 2021.

<sup>20</sup> Pg. 7, California State Auditor; *Electricity and Natural Gas Rates*; Report 2022-115; August 2023.

national average,<sup>21</sup> largely attributable to California’s mild climate and strong commitment to energy efficiency driving down energy usage.

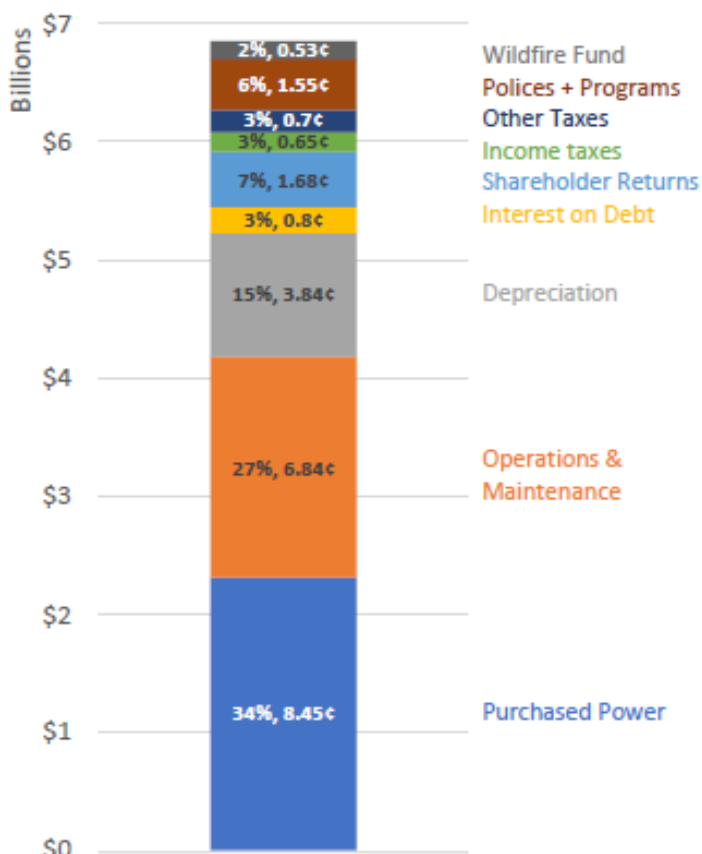
Regardless, recent research by the University of California, Berkeley’s Energy Institute at Haas and NEXT 10 concluded California’s high rates are roughly two to three times the costs it takes to produce the electricity.<sup>22</sup> This misalignment between price and costs may confuse many customers, as the costs imbedded in an electric bill grow more unrelated to the cost of delivering the electricity, and any effort by an individual to reduce consumption might bear little change to their billing. It is therefore important to understand what is currently included in an electric bill. A typical residential electric bill is comprised of three components<sup>23</sup>:

1. Procurement Costs – the costs to purchase electricity.

2. Transmission & Distribution (T&D) – the costs to move the electricity to homes and businesses; some of these costs are approved by the CPUC, some by the Federal Energy Regulatory Commission (FERC).

3. Public Purpose Surcharge & Other – costs for policies and programs paid by electric ratepayers, such as the California Alternate Rates for Energy Program (CARE) which provides a bill reduction for qualified low-income customers, and various energy efficiency and research programs, among others.

These costs combine to make an average residential electric bill such



**Figure 1 - PG&E's 2020 Bundled Revenue Requirement<sup>24</sup>**

<sup>21</sup> Data from the U.S. Energy Information Administration EIA-861 schedules 4A-D, EIA-861S and EIA-861U; [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table5\\_a.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf) and [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table5\\_c.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_c.pdf)

<sup>22</sup> Pg 4, Borenstein, S., Fowlie, M., and Sallee, J., “Designing Electricity Rates for an Equitable Energy Transition,” *Energy Institute at Haas* working paper WP 314, February 2021.

<sup>23</sup> While this basic categorization of costs reflects major areas of utility operations, it is also used to determine what portions of utility costs should be paid by different types of customers. For instance, some customers do not receive full or bundled service from the utility and may generate their own electricity on site or buy electricity from a non-utility source (e.g., an Electric Service Provider (ESP), or a CCA). Customers who receive electricity from a CCA or ESP do not typically pay generation costs but do pay transmission and distribution costs. However, these customers are also required to pay non-bypassable charges for generation procured on their behalf before they departed from bundled service. Additionally, some larger customers receive service at transmission voltage levels and are not charged for use of the utility distribution system.

as what is shown in Figure 1 from PG&E.<sup>24</sup>

The CPUC reviews and approves electric IOU costs and revenues through a variety of the public processes. The most notable include the Energy Resource and Recovery Account (ERRA) and the General Rate Case (GRC) proceedings. ERRA proceedings are used to reconcile estimated versus actual fuel and purchased power costs. The electric IOUs do not earn a profit on these costs, and only recover actual costs. The costs are forecasted for the year ahead. If the actual costs are lower or higher than forecasted, then the electric IOU credits or charges customers, respectively, for the difference. And unlike in natural gas billing, where the cost is an immediate pass-through to customers in the month the spike occurred, the ERRA allows spikes in the electricity market to be smoothed out over the subsequent year. The ability of the IOUs to smooth electric price volatility before reaching customer bills is a powerful affordability measure to mitigate short-term price spikes.<sup>25</sup> However, California’s IOU electric rates are among the highest in the country,<sup>26</sup> suggesting long-term trends away from affordability.

GRC proceedings are used to address the costs of operating and maintaining the electric system and the allocation of those costs among customer classes. For California’s electric IOUs, the GRCs are parsed into two phases. Phase I of a GRC determines the total amount the electric IOU is authorized to collect, while Phase II determines the share of the cost each customer class is responsible for and the rate schedules for each class.

Across all three IOUs, rates have increased since 2013.<sup>27</sup> As shown in Figure 2, these increases equate to billions of dollars, with all categories of cost increasing—some even doubling—in just 3 years from 2020 to 2023.<sup>28</sup> According to an analysis by PAO, the primary drivers for these cost increases arise from wildfire mitigation work, transmission and distribution investments, and rooftop solar incentives.<sup>29</sup> A recent report by the State Auditor had similar findings.<sup>30</sup> Wildfire costs, including insurance, was noted as a key factor in increased utility expenses. Decreasing electricity sales due to solar system adoption was noted to have led to IOUs raising rates to recover fixed costs. Further, the audit found increases in IOU operating costs, which may be inclusive of these other categories, as contributing to increased rates; specifically distribution costs for PG&E, administrative costs

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<sup>24</sup> As reported in February 28, 2022 presentation by NRDC Scientist Mohit Chhabra, “Analyzing (some) Policy Levers for Affordable Decarbonization,” CPUC *En Banc*, Panel 3. Data from PG&E’s FERC Form 1 filings (2020 and earlier); 2022 Annual Electric True-Up; 2020 GRC Cost of Service.

<sup>25</sup> For example, during the winter 2022-2023 natural gas price spikes (see citation 17), customer natural gas bills soared; whereas their electricity bills increased but in a moderate fashion. This is due to the smoothing tools available in electricity billing.

<sup>26</sup> Borenstein, S., Fowlie, M., and Sallee, J., “Designing Electricity Rates for an Equitable Energy Transition,” *Energy Institute at Haas* working paper WP 314, February 2021.

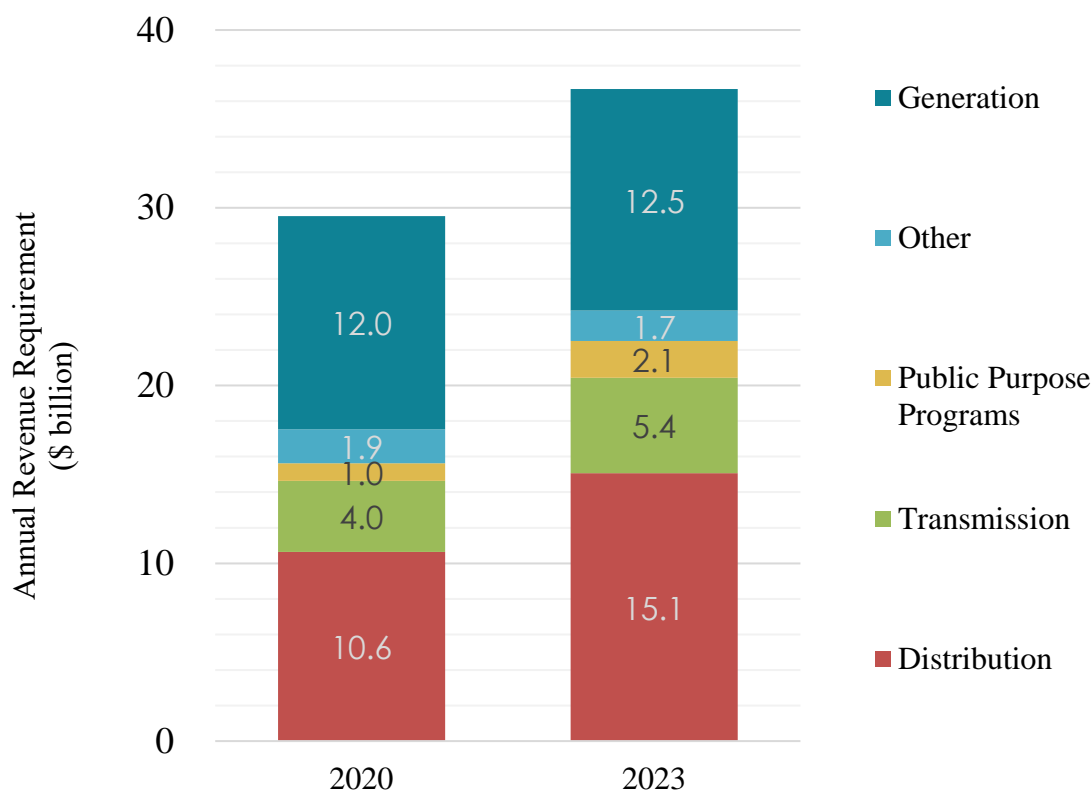
<sup>27</sup> Bundled system average rate; by 37% for PG&E, 6% for SCE, and 48% for SDG&E. Pg. 7; “Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1,” CPUC, February 2021.

<sup>28</sup> Data provided to committee by PAO. Source: CPUC data recreated from *2023 Senate Bill 695 Report: Report to the Governor and Legislature on Actions to Limit Utility Cost and Rate Increases Pursuant to PUC Code Section 913.1*. (May 2023)

<sup>29</sup> Slide 6, PAO slidedeck “Q4 2023 Electric Rates Report;” January 19, 2024; <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240119-caladvocates-q4-2023-quarterly-rate-report.pdf>

<sup>30</sup> State Auditor, 2023; *Ibid*.

for Southern California Edison (SCE), and higher property and non-income taxes for SDG&E.<sup>31</sup>



**Figure 2** Combined revenue requirement (PG&E, SCE, SDG&E) in 2020 vs. 2023, in which costs increased by category: 43% for distribution, 35% for transmission, 110% for PPP, and only 4% for generation costs.<sup>28</sup>

While these rates are high, the actual electric bill the average residential and industrial customer pays is below the national average,<sup>32</sup> largely attributable to California’s mild climate and strong commitment to energy efficiency driving down energy usage. However, increases in customer electricity usage from greater home electrification, such as at-home electric vehicle charging, are beginning to buck decades of flat customer consumption trends. The decades-long, relatively flat pace of demand growth occurred despite significant population and economic growth. The current trend away from the flat demand growth represents a new era in electricity demand, one in which demand is growing significantly while the cost to serve that demand (the distribution system cost in particular) is also rapidly growing. What this means for individual consumers – especially those that electrify their house and vehicle – is higher and higher electricity bills. However, collectively there is evidence that greater electrification leads to a reduction in system costs for all customers, due to a larger pool of customers or a subset of customers (e.g. electric vehicle owners) paying more to maintain the same infrastructure.<sup>33</sup>

<sup>31</sup> Pg. 1; State Auditor, 2023; *Ibid.*

<sup>32</sup> Data from the U.S. Energy Information Administration EIA-861 schedules 4A-D, EIA-861S and EIA-861U; [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table5\\_a.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf) and [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table5\\_c.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_c.pdf)

<sup>33</sup> Frost, J; et. al; “Electric Vehicles Are Driving Electric Rates Down;” Synapse Energy Economics, Inc., June 2020; [https://www.synapse-energy.com/sites/default/files/EV\\_Impacts\\_June\\_2020\\_18-122.pdf](https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf)

While the current high electric bills experienced by California customers raise concern, the projection of future rate impacts is even more troubling. By 2030, bundled residential rates are forecasted by the CPUC to be much higher than they would have been if 2020 rates had grown at the rate of inflation.<sup>34</sup> These forecasts largely attribute this increase to capital expenditures (infrastructure build) and wildfire mitigation. However, these forecasts rely on fairly conservative assumptions about utility expenditures that could underestimate the actual rate increases expected in the future.<sup>35</sup>

The projected growth in electricity costs over the next decade suggests that many Californian households may struggle with energy affordability. These high rates might make it more expensive for a business to produce goods, or might discourage adoption of electric vehicles or electric appliances. For customers most acutely impacted by changes to their electricity bills – such as low-income customers, customers in hot climate zones, medically vulnerable customers, or customers in public housing – these higher costs can have dire consequences. Failure to pay electricity bills and the resulting potential for disconnections can lead to critical medical equipment shutting off, the potential for heatstroke during a heatwave, or even the loss of custody of children to the State. Energy shutoffs in California increased by over 50% from 2010-2017.<sup>36</sup> During the first two years of the COVID-19 pandemic, disconnections were suspended; but as noted earlier, as of November 2023, roughly 22% of PG&E customers and roughly 26% of SDG&E customers are in arrears, with the average amount owed \$550 and \$737, respectively.<sup>37</sup> Given the critical role electricity plays in everyday life, having roughly 1 in 4 Californians electricity-insecure, or on the cusp of disconnection, is untenable.

***Where Do We Go From Here? Future Trends and Opportunities.*** These rate trends paint a bleak picture regarding the ability for Californians to pay their electricity bills given future costs in the energy market. Existing programs offer customer assistance, such as the California Alternate Rates for Energy (CARE) program and the Family Electric Rate Assistance (FERA) program. These provide a helpful bill discount but do not guarantee an affordable bill.<sup>38</sup> The CPUC is currently piloting a novel affordability program, the Percentage of Income Payment Plan (PIPP), which allows a participant to pay a predetermined affordable percentage of their monthly income toward their utility electricity or natural gas bill.<sup>39</sup> PIPP participants will receive a monthly bill cap for current charges set at four percent of their household’s monthly income.

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<sup>34</sup> Approximately 12 percent higher for PG&E, 10 percent for SCE, and 20 percent for SDG&E. Pg. 43, “Utility Costs and Affordability of the Grid of the Future : An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1,” CPUC, February 2021.

<sup>35</sup> “...the forecasts generally incorporate known program changes and assume a small escalation factor for remaining activities...”pg. 57, “Utility Costs and Affordability of the Grid of the Future : An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1,” CPUC, February 2021.

<sup>36</sup> TURN, “Living Without Power: Health Impacts of Utility Shutoffs in California,” May 2018, [http://www.turn.org/wp-content/uploads/2018/05/2018\\_TURN\\_Shut-Off-Report\\_FINAL.pdf](http://www.turn.org/wp-content/uploads/2018/05/2018_TURN_Shut-Off-Report_FINAL.pdf)

<sup>37</sup> Inclusive of both electric and natural gas customers; pg. 4; PAO slidedeck “Q4 2023 Electric Rates Report;” January 19, 2024; <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240119-caladvocates-q4-2023-quarterly-rate-report.pdf>

<sup>38</sup> Households enrolled in CARE receive a 30-35% discount on their electric bill and a 20% discount on their natural gas bill. Households enrolled in FERA receive an 18% discount on electric bills.

<https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/care-fera-program>

<sup>39</sup> D.21-10-012

While these programs assist many Californians in making energy more available, they often reach only a subset of ratepayers—those most vulnerable—and have the unfortunate consequence of leading to increased costs to the remaining non-eligible, non-participating ratepayers. Recent efforts both in the Legislature and at the CPUC have sought more holistic reforms to electric affordability: reforms that either help spread out costs more efficiently, equitably, or over a longer horizon (redistribution); or reforms that lower costs altogether (reduction). A selection of current proposals to either redistribute or reduce future costs include:

### Redistribution

- Income-graduated fixed charge. While increasing distribution and transmission costs continue to drive total system costs higher, most of these costs are recovered from customers via a volumetric rate.<sup>40</sup> However, only a portion of the IOUs' costs—mostly generation and some distribution—directly vary based on how much energy customers use. Most infrastructure and operational costs may be seen as “fixed,” or not dependent on individual customer usage. In 2013, AB 327 (Perea, Chapter 611, Statutes of 2013) permitted the CPUC to adopt a fixed charge of no more than \$10 for most residential customers, and \$5 for CARE customers. The CPUC never adopted the \$10 fixed charge on standard residential rates; however, they have adopted optional electrification rates for electric vehicles and rooftop solar that require a fixed charge between \$12-15/month, with a lower volumetric rate. AB 205 (Committee on Budget, Chapter 61, Statutes of 2022)<sup>41</sup> removed the \$10 statutory cap, and requires the CPUC to instead authorize an “income graduated” fixed charge by July 1, 2024 for default residential rates. Moreover the bill requires that the charge have “at least three income tiers” and must ensure low-income customers have a lower monthly bill, without unreasonably impairing incentives for electrification and greenhouse gas reduction, among other requirements.<sup>42</sup> The discussion to implement the statute has been active and contentious at the CPUC,<sup>43</sup> with parties filing various proposals.

The CPUC has yet to issue their proposed decision, leaving many to speculate on the outcome. Proponents of an income-graduated fixed charge argue it is a necessary strategy to insulate disadvantaged and low income communities from escalating cost pressures. Opponents argue that it is a utility tax that will unreasonably burden many moderate income households, in addition to posing significant challenges for implementation. The income-graduated fixed charge is not the primary topic of today's oversight hearing. The committee is closely following the fixed charge proceeding at the CPUC, and will be considering bills on this topic at upcoming hearings.

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<sup>40</sup> Pg. 14, CPUC, *2023 Senate Bill 695 Report*, May 2023.

<sup>41</sup> PUC §739.9

<sup>42</sup> See agenda for June 1, 2022, Assembly Budget Subcommittee No. 3 on the Governor's May Revision Energy Proposals, and discussion in that hearing, for more information:

<https://abgt.assembly.ca.gov/sites/abgt.assembly.ca.gov/files/June%201-%20Sub%203%20Energy%20May%20Revision%20Informational%20Hearing.pdf>

<sup>43</sup> R. 22-07-005.



- Dynamic rates shift customer electricity usage to times when prices are low—for instance during high renewable generation—while reducing usage when prices are high and the grid is stressed. Two pilots were authorized in 2021, one in Northern California for agricultural pumping customers and one in SCE territory open to multiple end-uses.<sup>44</sup> As these pilots continue to gather data, it will be important to understand how universally beneficial such dynamic rates may be for the general population or if a targeted approach to select consumers—with necessary control equipment—would be the most efficient use of these rate structures.
- Alternative Financing, such as securitization, examines ways to stretch payment options for projects that are usually paid immediately, so that the shock to customer bills is lessened. However a delicate balance must be struck, as future cost burdens could inflate (e.g., overextending the utilities’ credit cards), and issuing debt for utility costs normally paid through other means will increase overall costs due to added interest payments, particularly if the utility cannot secure low interest rates. There are also equity implications with securitization that must be weighed; i.e. whether future ratepayers are being saddled with costs for expenses that only benefit today’s ratepayers, since customers move and change over time.
- Reforms to the Net Energy Metering (NEM) program and other distributed energy resource (DER) inequities. There is the potential for a growing divide in the cost of service between customers participating in DER and those who are less likely to do so. Moderate- to higher-income customers are more likely to invest in DERs such as solar photovoltaic systems, electric vehicles, and storage technologies, and the sophisticated rates that support them. This enables these customers to shift load and take advantage of the billing benefits that result. This results in a cost shift toward the non-participating customers, often lower-income and otherwise vulnerable customers.<sup>45</sup> The IOU NEM program has been a focus of such cost-shift discussions, and in December 2022 the CPUC adopted a decision to revise NEM to make the program more equitable toward non-NEM ratepayers, while preserving incentives for select DERs that offer greater grid benefits, such as solar systems paired with storage.<sup>46</sup>

### Reduction

- Alternative sources of funding outside of electric rates. In both AB 135 (Committee on Budget, Chapter 85, Statutes of 2021) and AB 205 (Committee on Budget, Chapter 61, Statutes of 2022), billions of dollars of General Fund money were used to offset electric and gas customer debt accrued during the COVID-19 pandemic. Recent legislative efforts seek to move certain expenses out of electric rates and onto the

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<sup>44</sup> D. 21-12-015, “Phase 2 Decision Directing PG&E, SCE, and SDG&E to take Actions to Prepare for Potential Extreme Weather in the Summers of 2022 and 2023,” R. 20-11-003, issued December 6, 2021.

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K821/428821475.PDF>

<sup>45</sup> PAO, “Rooftop solar incentive to cost customers without solar an estimated \$6.8 billion in 2024,” February 8, 2024; <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240208-cal-advocates-2024-rooftop-solar-incentive-cost-shift.pdf>

<sup>46</sup> D. 22-12-056, “Decision Revising Net Energy Metering Tariff and Subtariffs,” R.20-08-020, issued December 19, 2022. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M500/K043/500043682.PDF>

General Fund.<sup>47</sup> However, as evidenced by recent events, the General Fund is volatile due to California's progressive tax code — a characteristic that is the exact opposite of how ratepayer revenue is normally collected (slow, steady, and subject to public scrutiny). Additionally, with the large federal spending packages over 2021-2022, efforts are underway to maximize savings for California ratepayers by subsidizing with federal dollars. In April 2023, the CPUC adopted Resolution E-5254 to require review and approval of IOUs' cost recovery requests for federal funds from the Inflation Reduction Act, the Infrastructure Investment and Jobs Act, and the Creating Helpful Incentives to Produce Semiconductors and Science Act. The resolution provides direction on how IOUs should track project costs, and establishes a reporting mechanism so the CPUC is aware of federal dollars coming into California's utilities.<sup>48</sup>

- Alternative technologies offer the promise of doing more with less. This can include Demand Response programs which compensate customers for shifting energy usage, so that the overall burden to the grid is lessened (and theoretically less new grid infrastructure is needed). Grid-enhancing technologies (GETs) also purport, including through advanced monitoring, to free up line congestion and thereby ensuring the grid is always operating at its peak efficiency, minimizing otherwise needed grid upgrades. Other distributed energy resources, such as rooftop solar, have long argued for better cost calculations, claiming the technology reduces the need for new transmission infrastructure. However, uncertainty exists around the costs versus benefits of these technologies, or how much savings – if any – might be realized.
- Examining existing programs and expenditures. The CPUC employs affordability metrics in examining IOU applications requesting revenue increases.<sup>49</sup> If the revenue request exceeds one percent of authorized revenues, IOUs are required to show the corresponding bill impacts and affordability impacts.<sup>50</sup> It may benefit ratepayers to examine all existing CPUC programs for cost effectiveness, and apply these affordability metrics in the analysis. Understanding the full breadth of existing programs, not just requests to increase program budgets, and subsequently revisiting them on a more systematic basis, may aide the CPUC in ending redundant or bloated programs.

Electric costs may be likened to an inflated balloon: one can squeeze one side of it to make it smaller, but the result will be expansion in another area. California's electricity sector, the backbone of its economy and the enabling infrastructure for its response to climate change, is in a period of transition. As noted above, the costs of the transition are already projected to reach into the tens of billions of dollars in this decade. Add to those costs ongoing grid hardening and mitigation work underway, and the costs projections soar higher. It will be necessary to develop policies that ease the transition for customers, particularly for the most vulnerable, to ensure we meet our goals as affordably as possible. This hearing will provide

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<sup>47</sup> AB 982, Villapudua, 2023 and AB 2765, Santiago, 2022.

<sup>48</sup> <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M506/K016/506016078.PDF>

<sup>49</sup> D. 22-08-023; <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability/phase-2>

<sup>50</sup> Pg. 16, CPUC SB 695 Report, *Ibid*.

an opportunity to examine these solutions, both those that redistribute the overall cost burden and those that reduce it.

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