

# WHAT IS DRIVING UP ELECTRIC RATES IN CALIFORNIA?

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Options to Address the Issues

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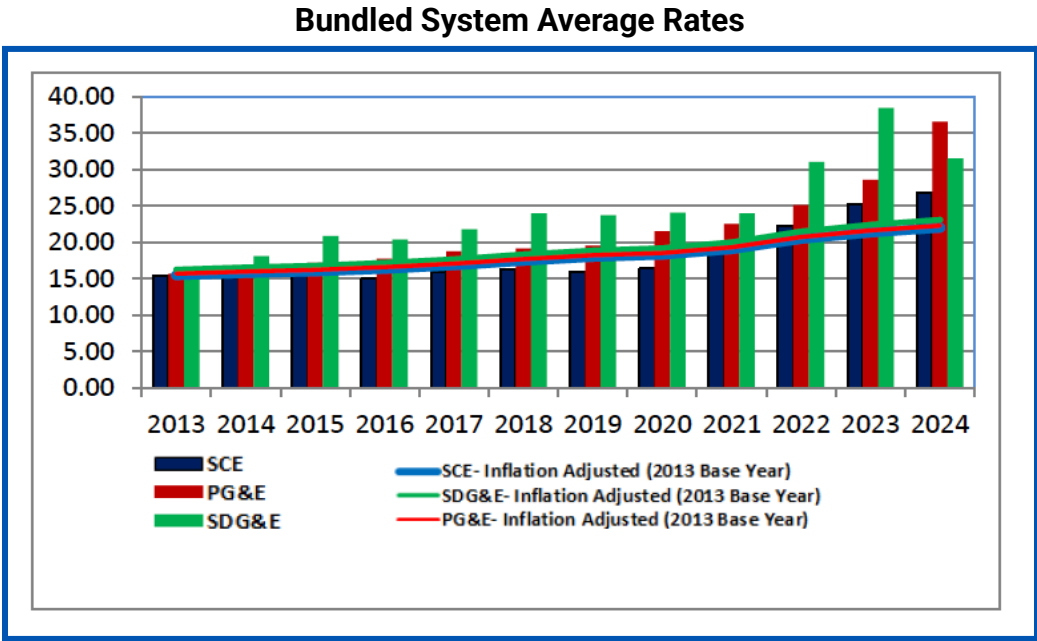
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# INTRODUCTION

This paper represents some general thinking on what is driving electric rate and bill increases in California and highlights some options to address these trends. The goal of this paper is to help better frame the issues outside of any specific advocacy lens. The paper has been developed using publicly available data and has NOT been extensively fact checked. Since the data is pulled from different sources there may be some errors resulting from how different reports categorized specific rate elements. The data presented is intended to help visualize general trends but would need to be more thoroughly vetted if used for more publicly facing reports.

# RATE TRENDS

Between 2012 and 2024 average electric rates for customers of PG&E have increased by 133%. Over the same period, rates have increased by 73% for SCE and 94% for SDG&E. While rate increases have historically tracked inflation, since 2013 PG&E rate increases have exceeded the rate of inflation by 92%. SCE's rates have exceeded inflation by 32% and SDG&E's rates have exceeded inflation by 53%.



Source: CPUC July 2024 SB 695 Report page 29.

**PG&E, SCE, and SDG&E Forecasted Bundled Small Commercial Rates  
(nominal \$/kWh)**

Bundled Small Commercial Rate	Year-End				
	2023 Actual	2024	2025	2026	2027
PG&E Nominal Rate	\$ 0.364	\$ 0.436	\$ 0.470	\$ 0.512	\$ 0.544
SCE Nominal Rate	\$ 0.290	\$ 0.283	\$ 0.317	\$ 0.335	\$ 0.349
SDG&E Nominal Rate	\$ 0.402	\$ 0.404	\$ 0.424	\$ 0.460	\$ 0.490

Source: CPUC July 2024 SB 695 Report Page 67.

According to the CPUC and the electric utilities, rate increases will continue for at least the next three years. In forecasts provided to the CPUC:<sup>1</sup>

- PG&E is forecasting 49%<sup>2</sup> increase in rates between the end of 2023 and 2027,
- SCE is forecasting a 19%, and
- SDG&E a 21% increase.

These forecasts are based on data provided to the CPUC from PG&E, SCE, and SDG&E in early 2024. In filings at the CPUC and news releases issued by the utilities in December 2024, each utility has requested different rate changes for 2025 than what was forecasted above. The actual rates result in a slight decrease in average bills for both PG&E and SCE. The decrease in bills and rates is partially or largely the result of lower power procurement costs in 2025 and overcollections of some expensive in 2024.<sup>34</sup> All of these changes in revenue for PG&E are based on one-time or highly variable expenses and do not indicate a sustainable trend in rates or revenue. In SCE's case the changes are largely the result of the CPUC's approval of its General Rate Case.

<sup>1</sup> CPUC 2024 SB 695 Report page 66. Note that this forecast is based on filings to the CPUC in the first quarter of 2024. Subsequent filings have shown different forecasts. Since the purpose of this paper is to focus on overall trends and solutions the paper has not been updated to reflect the quarterly changes in utility filings.

<sup>2</sup> The rate increases that occurred in the first quarter of 2024 are part of this 49% increase.

<sup>3</sup> See Annual True Up Advice Letter: [https://www.pge.com/tariffs/assets/pdf/advicelatter/EL\\_EC\\_7469-F.pdf](https://www.pge.com/tariffs/assets/pdf/advicelatter/EL_EC_7469-F.pdf); 2025 PG&E ERRR Final Decision: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M550/K288/550288170.PDF>; and PG&E December 30, 2024 Blog post: <https://www.pge.com/en/newsroom/currents/energy-savings/about-energy-rates-whats-ahead-and-how-to-lower-energy-costs.html>

<sup>4</sup> See SCE January 1, 2025, Rate Advisory: <https://www.sce.com/residential/rates/rateadvisory>

Actual rate increases may be lower or higher depending on cost of fuel, wholesale energy market costs, load growth, and other factors.

These increased rates are resulting in energy bills that are becoming unaffordable for lower income customers and make the transition away from using fossil fuels for transportation, heating, and cooking more expensive and harder to achieve.

Before focusing on specific ways to cut utility revenue collection it is important to understand the relationship between the CPUC and the utilities, the relationship between rates and bills, and how the utilities make a profit.

## Rate Increases Are Not Limited to California

Increases in average rates are not limited to California. According to the Energy Information Agency (EIA), average retail rates for all California utilities, including publicly owned utilities, increased by 57% between 2013 and 2023. In that same period, rates increased by 25% nationally.<sup>5</sup> As discussed above PG&E's rates increased by 133% over that period. SCE's rates increased 73% and SDG&E's increased by 94%.

## Rates vs. Utility Revenue

Often the term "rates" is used to represent the total amount of revenue utilities collect from customers, however, the term "rates" actually only describes how the utility collects funds. Rates are established after the CPUC determines how much revenue a utility can collect. Changes in specific rates rarely directly track on a dollar-for-dollar basis how much the utility is allowed to collect in total or how much profit a utility makes. This is because rates are impacted by other factors beyond the utilities' allowable revenue collection. Critically, rates are impacted by total demand for electricity such that if the utility sells more, electricity rates will go down since the utility can spread its revenue collection over more customers. And if electricity sales go down rates will go up, since utilities now have fewer customers but a similar amount of revenue they can collect.

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<sup>5</sup> According to EIA data California average rates were 13.53/kwh in 2013 and 24.87/kwh in 2023. Nationally average rates were 10.07/kwh in 2013 and 12.68 in 2023 which is a 25% increase

This is evident when you compare PG&E's rate increases to the change in their revenue requirement over the past 10 years.

- PG&E average rates increased 133% over this period.
- PG&E's revenue requirement increased from \$12.8 billion to \$15.2 billion in that period which is a 19% growth in revenue requirement.<sup>6</sup>

The increase in average rates was dramatically higher than PG&E's increase in revenue requirement, in part because there were fewer sales over which to spread the cost increases. The sales reductions were due in part to energy efficiency, in part to a dramatic increase in the number of customers with solar panels who were producing their own electricity, and in part to customer migration to CCAs.<sup>7</sup>

## Rates vs. Bills

Generally, utility cost impacts on end use customers are discussed in terms of rates. However, utility customers are more concerned about their overall bill. This is an important consideration in designing tools to reduce the economic costs of using electricity since some actions that lower bills could result in higher rates and some actions to lower rates and bills for some customers would result in higher rates and bills for other customers.

Historically California has always had higher rates than other parts of the United States, but California electric utility customers have paid some of the lowest energy bills in the country. This has been due to California's temperate coastal climates and aggressive energy efficiency investments, resulting in lower usage per customer. However, the rate increases in recent years have caused California electricity bills to increase to the point where they are some of the highest in the nation.

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<sup>6</sup> Data from Appendix to CPUC AB 67 reports for Years 2013 and 2023.

<sup>7</sup> The rate impact of CCA customer departure is complicated and requires further analysis. CCA customers remain customers of the IOUs for distribution services and there are mechanisms in place to ensure that bundled IOU customers are not harmed by CCA growth.

**U.S. IOU Ranking of PG&E, SCE, and SDG&E (Out of Approximately 200 IOUs)  
Bundled Residential Average Rates and Monthly Bills (U.S. EIA)**

	Bundled Residential Average Rate (cents/kWh)				Bundled Residential Average Monthly Bill (\$)			
	2019	2020	2021	2022	2019	2020	2021	2022
<b>PG&amp;E</b>	24	13	9	7	70	25	17	18
<b>SCE</b>	42	21	17	17	142	85	70	65
<b>SDG&amp;E</b>	17	9	6	5	122	87	88	43

Source: CPUC July 2024 SB 695 Report Page 32

Additionally, looking at average bills on a statewide basis hides the impact high rates have on Californians living in hotter areas of the state. These customers have significantly higher electric usage, and even with efforts to account for this higher usage through higher baseline allowances, they typically spend much more of their household income on electricity costs than coastal customers.

## Utility Revenue vs. Utility Sales vs. Rates

As discussed above, rates are established after the CPUC determines how much the utility is allowed to collect. This calculation is ultimately based on forecasted and actual sales such that increases in electric demand (increased sales) will result in lower rates. If the utility has a steady or decreasing revenue requirement but sales are flat or decreasing, rates could go up since there are fewer customers paying for the services.

While overall electricity demand in California has increased over time, a portion of that demand has been met by rooftop solar that is located behind the customer’s meters. This means that even with an increase in demand actual PG&E sales of electricity has decreased by 3.5 GWh between 2010 and 2024<sup>8</sup>. This means that even if the utility revenues had remained flat, rates and bills would have increased over 10 years.

<sup>8</sup> PG&E Revenue and Rate Design Report Annual Filings to the CPUC



# UTILITY COST RECOVERY

## The Regulatory Compact

A key driver impacting the ability of the CPUC to cut the revenue that a utility can earn, and thus reduce the average bills paid by customers, is often referred to as the regulatory compact. The regulatory compact is a fundamental principle in utility regulation. In states like California where an electric utility is granted a monopoly to provide all or parts of electric service, the CPUC will set the total amount of money the utility is allowed to recover to ensure that customers are paying a just and reasonable rate. While this compact will limit the total amount of money the utility can collect, a combination of federal and state laws and the need for the utility to be able to invest in their systems also guarantee that the utility can recover the costs they have reasonably incurred and have been ordered to spend by the state. Cost recovery is a critical aspect of this compact, as utilities must be able to recoup their legitimate expenses to remain financially viable and continue providing reliable service.

## Types of Expenses

Broadly speaking the utilities have two categories of expenses: 1) Capital Expenditures and 2) Operation and Maintenance.

Capital expenditures are the investments a utility makes in physical infrastructure. This includes their transmission and distribution lines, substations, trucks, buildings, and the generation assets that they own. For capital expenditures, the utility borrows money or uses money contributed by shareholders to pay for the investments upfront then recovers those costs over the life of the asset. The utility is allowed to recover the cost of financing the project and earns a predetermined rate of return on the book value of the investments. This rate of return is the utility's profit.

Operation and maintenance expenses are all the ongoing day-to-day costs to operate a utility. These costs are directly passed through to ratepayers and the utility does not mark up the costs or earn a profit. Importantly, the cost of contracts with a third party to build a new generation plant and operate that plant to supply electricity to the utility is treated as an operating cost and a pass through to the end customer. The utility does not earn a rate of return on third-party supplied electricity.

**A few illustrative examples may help clarify these points:**

- 1)** If PG&E were to build and own a new battery storage facility, PG&E would need to pay for the project costs up front but would be allowed to recover those costs over time plus earn a profit on that investment; however,

If PG&E signs a contract with another company to build and own a new battery storage facility and supply all of the output of that facility to PG&E, PG&E would be allowed to recover the actual costs of the contract but would not earn any profit off of the transaction.

In this scenario, PG&E might have an incentive to build their own project since they would earn a profit on the investment, but ratepayers may be better off if the CPUC requires PG&E to contract with a third party if the overall costs of the third-party contract are lower. For this reason, the CPUC places a higher burden on the PG&E to prove that building their own facility is reasonable for ratepayers compared to having a third party develop a project.

- 2)** If PG&E were to focus its wildfire mitigation efforts on having crews remove all vegetation that could fall onto electric lines and start a fire, those expenses would be operation and maintenance expenses and while the PG&E would be able to recover those costs, they would not earn a profit; however,

If PG&E were to underground transmission and distribution lines, that would be treated as a capital investment. PG&E would have to borrow funds to pay the initial costs of the investments and recover the costs over time but would also earn a profit on that investment.

In this case PG&E has an economic incentive to underground the powerlines. From a ratepayer perspective, the cost of underground power lines plus PG&E's profit represents a large long-term cost as the ratepayers pay off PG&E's investments. On the other hand, the vegetation management actions would need to be repeated every 2 to 5 years and overtime those costs could exceed the costs of undergrounding. In this case, while PG&E has a clear incentive to pursue the action with the largest capital costs, the CPUC needs to balance the long-term cost of each action to determine what is best for ratepayers.

## How the Utility Makes a Profit

California investor-owned utilities make a profit based on their total capital investments. The CPUC sets a fixed rate of return for their total capital expenditures. This return on capital expenditures, referred to as a Return on Equity, encourages investment in the utility to finance new infrastructure needed to keep the utility operating. If the return on equity were set too low, investors would look for other options for their money and the utility would not be able to raise the funds to make grid investments. If the return on equity is set too high, then the utility may have an incentive to over invest, or gold plate their system, to maximize shareholder returns.

Setting the return on equity may be as much an art as a science since there is not perfect data on what influences investment in California utilities. While investing in utilities is generally considered a relatively safe investment which should not require a high rate of return, the liability risk California utilities face from wildfire makes investing in California utilities appear more risky than other investments. Additionally, some investors view the regulatory climate in California as less predictable than other states and that unpredictability further increases the perceived risk of investing in California's utilities. This higher risk means the return on investment must be higher for investors to consider buying California utility equity.

For context, currently California electric utilities earn approximately a 10.25% rate of return on equity each year. The national average for electric utilities in 2023 was 9.6%.<sup>9</sup>

## How the Utility Collects Revenue in Bills

The next step in understanding how California can reduce overall utility costs (and thus bills) is to understand the components of a utility's overall revenue requirement. The broad components of electric rates are:

- **Generation Costs**
  - Cost of procuring and generating electricity.
  - Most generation costs are through contracts with wholesale energy providers and do not involve capital investment by the utilities. Consequently, most of these costs are passed directly through to rate payers and the utility earns no profit.

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<sup>9</sup> S&P Global:

<https://www.spglobal.com/marketintelligence/en/news-insights/research/underearning-spread-widens-for-gas-electric-utilities-in-roe-analysis#:~:text=The%20average%20ROE%20authorized%20for,observed%20in%20full%20year%202022>

- **Transmission**
  - Cost of the bulk transmission lines that transport electricity from large generators to load. Transmission rates are set by the Federal Energy Regulatory Commission (FERC).
  - The utilities own the transmission lines and make substantial capital investments in the transmission system. This is an area where more investment results in more profit for the utility.
  
- **Distribution**
  - Costs for the local electric lines that deliver energy to home and business.
  - The utilities own the distribution lines and make substantial capital investments in the transmission system. This is an area where more investment results in more profit for the utility.
  
- **Public Purpose Programs**
  - Programs that provide broader social benefits such as low-income programs, energy efficiency programs, and market transformation programs such as the Self Generation Incentive Program (SGIP).
  - These costs are passed through for the utilities. The Public Purpose Programs are mandated by the CPUC or the Legislature.
  
- **Other costs (including back office and billing)**
  - These costs can be both capital expenditures or treated as operation and maintenance. For example, if the utility owns the hardware needed for its billing systems it is a capital expenditure, but if it leases software and cloud computing for billing it is treated as operation and maintenance.

Many Californians are customers of Community Choice Aggregators (CCAs). The CCAs provide their customers generation services, but those customers still receive transmission and distribution services from the IOUs and the CCA customers pay most of the public purpose program costs through the IOU rates. This means that most IOU cost increases, excluding generation costs, are passed on to both the IOU bundled customers and the CCAs customers.

A small number of commercial customers receive their generation services from an Energy Service Provider (ESP) instead of the IOU. In this case the billing works the same as it would for a customer of CCA.

## Minimizing Financial Risk

Another important aspect of California utility cost recovery is that once the CPUC sets the amount the utility can collect there is very little financial risk to the utility. This is largely because California has decoupled cost recovery from electricity sales and further because much of the utilities' spending is tracked through balancing accounts.

**Decoupled rates** – Once the CPUC sets the amount of money the utility is allowed to collect in the General Rate Case, the CPUC then sets rates based on expected electric demand to allow the utility to collect those funds. If sales are lower than forecast, the utility will increase rates the next year to make up the difference. If sales are higher than forecast, the utility will lower rates to return the over collection. This decoupling of revenue from sales was established to promote energy efficiency and assure the utility they will collect their revenue requirement even if electric sales decrease. However, since many states do not decouple revenue from sales this mechanism gives California utilities a degree of financial security above what many of their counterparts have.

**Balancing Accounts** – Balancing accounts allow utilities to track the costs of specific programs relative to what they have collected in rates, collect additional funds if the programs are more expensive than forecasts, and, in most cases, reduce future collections if the programs are less expensive than forecasts. This mechanism further de-risks utility spending. Balancing accounts have become an increasingly common part of utility cost recovery.

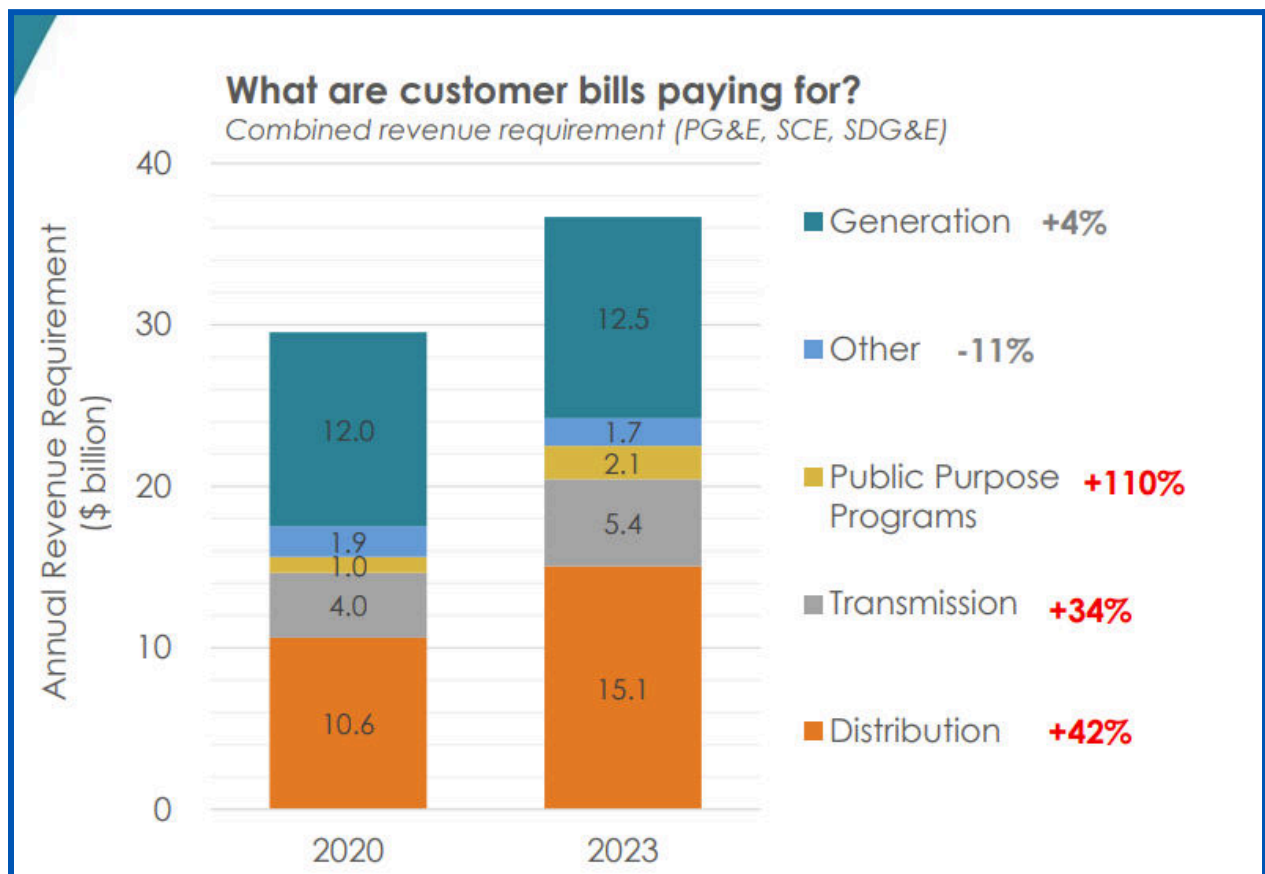
Even with decoupling and balancing accounts, there is still risk that utilities will have expenditures that they are not allowed to recover in rates as well as opportunities to collect funds beyond their actual costs and thus increase profit. For the parts of their spending that are not tracked in balancing accounts, if the utilities overspend, they cannot collect extra funds to cover those costs, but if the utility underspends they can often keep the savings as additional profit. According to a 2023 Report from the California State Auditor, from 2008 to 2022 SDG&E earned a return in excess of the CPUC authorized return in 12 of the 15 years. SCE earned a higher return 7 of the 15 years and a lower return 8 of the 15 years. PG&E earned a higher return in only 4 of the 15 years.<sup>10</sup>

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<sup>10</sup> State Auditors August 2023 Report: Electricity and Natural Gas Rates, *The California Public Utilities Commission and Cal Advocates Can Better Ensure That Rate Increases Are Necessary*, Page 37.

# WHAT IS DRIVING RATE INCREASES

Looking at the increase in utility costs by category since 2020 shows that the brunt of the increases in costs are related to transmission, distribution, and Public Purpose Programs. According to Cal Advocates, between 2020 and 2023 across PG&E, SCE, and SDG&E, the combined costs of transmission, distribution and the Public Purpose Programs increased by \$0.07/kWh. That is a 45% increase over three years. At the same time generation costs increased by only 4%.



Source: Cal Advocates Presentation to Assembly Utilities and Commerce Committee, March 6, 2024

While Cal Advocates shows an increase in Public Purpose Program spending from 2020 to 2023, using this time period to measure growth in Public Purpose Programs might be misleading. Most of 2020 was shaped by the Covid Pandemic and the shelter at home mandates that resulted in a 40% year over year decrease in spending on Energy Efficiency

programs and a dramatic rise in CARE program participation. Looking at changes in Public Purpose Program spending over a 10-year period of 2013 to 2023:

- CARE Program Costs have decreased by 2% on an inflation adjusted basis.
- Energy Efficiency Program Spending has decreased by 32% on an inflation adjusted basis.<sup>11</sup>

## Timing of CPUC Decisions

While the timing of CPUC decisions may not impact the overall amount of money the utilities collect, they can impact how big of an increase customers face at a particular moment. Delays in CPUC approval of General Rate Cases (GRCs) and other cost recovery do result in bigger percentage increases when they eventually occur.

## What Is NOT Driving Up Rates (Yet)

Studies conducted by the CPUC and the CEC show that nearly 50 GWs of new generation resources will need to be developed by 2035 with a cost estimate of \$936 billion in total and \$56 billion in 2035 alone. Similarly, the CAISO estimates that between \$45 and \$63 billion of new transmission will need to be constructed to meet California's carbon reduction goals.<sup>12</sup> These investments would not show up in rates until after the projects are completed and will be recovered over several years. Since much of this work hasn't yet been started, these future costs are not driving the current rates.

Finally, while the CPUC has approved over \$2.6 billion in utility spending to support transportation electrification, most of these investments have not been completed and thus are not yet included in rates.<sup>13</sup> This \$2.6 billion does not include most of the necessary cost to upgrade local distribution systems to support new load. Analysis prepared for the 2019 AB 695 Report found that the load growth related to transportation electrification will ultimately help *lower* rates since the fixed costs can be spread over more usage, so it is possible that some or all of the infrastructure costs associated with transportation electrification will be offset by the benefits from load growth.<sup>14</sup>

While some advocates point to California's commitment to reducing greenhouse gas emissions as a driver of high rates, it should be noted that California's Publicly Owned

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<sup>11</sup> Source: CPUC AB 67 Reports 2014 - 2024

<sup>12</sup> CAISO 2024 20 Year Transmission Outlook:  
<https://www.caiso.com/documents/2024-20-year-transmission-outlook-jul-31-2024.pdf>

<sup>13</sup> CPUC 2024 AB 695 Report Page 58

<sup>14</sup> Add reference to 2019 AB 695 Report

Utilities (POUs) do not have same high rates as the PG&E, SCE, and SDG&E but must meet the same renewable energy and greenhouse gas reduction targets. The POUs however, do not earn a return on their investments and do not have the same statutory requirements for many of the programs that are funded through the public goods charges.

## Impact of Public Purpose Programs on Rates

Additionally, while the total cost of Public Purpose Programs has more than doubled since 2020, public purpose programs still only account for 6% of total average rates. More importantly, as noted above, over a longer-term period CARE spending has remained stable and Energy Efficiency funding has declined.

While some specific energy efficiency programs are not defined as cost effective, meaning they cost the utility and ratepayers more than they save, many of the non-cost-effective programs are targeting low-income customers and specifically help lower these customers' overall bills. Thus, while they modestly increase overall rates they can have a significant impact on lowering bills of the participating low-income customers.



# HOW TO GET RATE INCREASES UNDER CONTROL

While it is instinctively appealing to argue for an across the board cut in what the utilities can collect or to put hard caps on how much the utilities can increase rates, this approach may not be possible. As discussed above, the IOUs have legal rights to collect the costs the CPUC has determined were reasonably incurred, and if the CPUC or statute requires the utility to make specific investments, it is almost impossible to argue that the utility did not act reasonably.

Additionally, if the CPUC were to order an IOU to make specific investments to ensure their system is safe and reliable but did not provide for cost recovery, the IOU would not make the investment or would refuse to make future investments. The utility is dependent on borrowing funds or selling stock to make capital investments, and any indication from the CPUC that the utility would not be allowed to recover costs for investments it is ordered to make would make investors unwilling to invest in California utilities.<sup>15</sup>

The CPUC or the Legislature could reduce the scope of public purpose programs that are funded through ratepayer bills or find alternative funding sources for the programs. However, many of these programs were created to meet targeted social or public policy goals and stable alternative funding sources may not be available. Additionally, many of these programs help individual customers manage their energy bills, so cutting them may marginally drive down overall utility costs, but the cut will result in significant bill increases for customers who participate in these programs.

For example, the largest public purpose program is the CARE program which provides bill discounts for low-income households. Eliminating that program would result in an approximate a \$2.2 billion reduction in utility costs collected from non-CARE eligible customers<sup>16</sup>, but it would result in a 30% increase in bills for 4.8 million households in California. The program grew by more than a million households between 2022 and 2023.<sup>17</sup>

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<sup>15</sup> As part of proceedings where the CPUC has specifically found that a utility has violated CPUC regulations or statute, the CPUC has ordered utilities to make specific capital investments and not recover those costs from ratepayers. In this case this denial of cost recovery is part of a package of penalties and not viewed as a general policy of denying cost recovery.

<sup>16</sup> Changing the CARE program would not change how much the utility collects but would change who it collects the money from.

<sup>17</sup> 2024 AB 67 Report Page 55.

Other programs, such as the energy efficiency programs and the Self-Generation Incentive Program, reduce utility bills to the benefiting customers by reducing their overall need for electricity from the grid. They are designed to reduce long term utility costs by reducing the need for the utilities to build new generation and transmission. Cutting these programs may result in short term reductions in utility costs but could increase longer term costs.

Some programs funded through the public purpose funding bucket have been ineffective at reducing utility cost and provide minimal or no benefit to the participating customers. These programs could be cut. While the likely savings from cutting these programs is minimal, even small cuts can stack up over time. The challenge with cutting these programs is that each individual program has a constituency that benefits from the program that would protest cutting that program. If that constituency has influence in the Legislature or the Governor’s office, the CPUC may not want to spend the political capital it takes to cut the program if the resulting reduction in customer bills is negligible.

### Overview of Options for Reducing Rates

SOLUTION	BILL REDUCTION POTENTIAL	TIMELINE	VENUE	POLITICAL DIFFICULTY
Reduce Return on Equity (ROE)	Medium	Long term	CPUC	Medium
Performance Based Incentives	Low to Medium	Long term	Legislative or Regulatory	Medium to High
Public Funding of Infrastructure	Medium to High	Long term	Legislative	High
Rate Design	Low to Medium	Short to midterm	Legislative & Regulatory	Low to High
Financing statures (securitization)	Low to Medium	Midterm to long term	Legislative & Regulatory	Low
Better Access to Data	Low to Medium	Short to long term	Legislative & Regulatory	Low
Fund programs with other sources of funding	Low to High	Short to long term <i>(but may not be sustainable in the long term)</i>	Legislative	Low to High

## Reduce the Allowable Profits a Utility Is Allowed to Earn

Currently California electric utilities earn approximately a 10.25% rate of return on shareholder equity each year. The national average for electric utilities in 2023 was 9.6%.<sup>18</sup>

Based on estimates that a reduction of PG&E's ROE of 1% will lead to approximately a 1% reduction in rates of 1% and a \$15 reduction in average annual bills, reducing PG&E's returns just to the national average (approximately half a percentage point) would result in an annual ratepayer savings of \$7.

The CPUC sets the utilities' cost of capital and rates of return every three years. In that proceeding, the utilities argued that they needed a return on investment that exceeded the national average because investors perceive California a riskier place to invest in utilities compared to other states. The risk is driven in large part by the risk of wildfire and a level of exposure to wildfire liability that exceeds every other state in the country. Beyond wildfires, there is also a general perception that California regulations make investments less certain and that delays in project approval and construction often drive-up overall costs.

The risk the CPUC runs by lowering the utilities' rate of return is that investors will ultimately decide to invest in utilities in other states that offer better or more certain returns. This flight of investment could ultimately drive-up utility borrowing costs and make financing new projects harder and more expensive. The higher cost of borrowing would be passed onto ratepayers which could offset any savings from a reduced rate of return and could ultimately result in the utilities not having enough capital to make needed investments.

Instead of lowering the return on equity across the board, the CPUC could lower the return on specific types of projects. For example the CPUC could reduce the return on equity for wildfire hardening on the distribution grid. While this approach could lower ratepayer costs, it would not change how institutional investors view the risks of investing in California and could still result in under investment in critical infrastructure. Additionally, a lower return on investment for certain types of projects would create incentives for the utility to prioritize areas of investment that receive higher returns.

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<sup>18</sup> S&P Global:

<https://www.spglobal.com/marketintelligence/en/news-insights/research/underearning-spread-widens-for-gas-electric-utilities-in-roe-analysis#:~:text=The%20average%20ROE%20authorized%20for,observed%20in%20full%20year%202022>

## Establish Performance Based Incentives

An alternative approach to directly lowering the utilities regulatory return on equity would be to move to an alternative structure for cost recovery and tie utility profits to specific performance metrics. This is known as Performance Based Incentives (PBI).

While PBI does not directly reduce ratepayer costs, it better ties profits to results, and some metrics could be tied to reducing overall costs. However, if the utility meets all its metrics it could increase costs, presumably with the benefit of better performance.

A possible example of how PBI could reduce utility costs is to create an incentive for the utility to promote distributed energy resources that reduce the need to upgrade the local distribution grids. The utility could earn incentives that increase their profits but reduce the actual capital investments involved in upgrading the grid.

A challenge with PBIs is that the utility's decision making may focus too heavily on meeting the specific metrics, to the detriment of other critical issues. There are also examples of utilities pressuring employees to file false paperwork to meet target metrics and using political pressure to be paid their incentives even when they fall short of the metrics.

Another approach to PBI would be to set specific revenue collection caps for specific types of spending such as purchased power, or the utility's overall revenue collection. The CPUC could then disallow any collection over this cap and allow the utility to keep the savings or split the savings with ratepayers if they spend below the caps. In theory, the overall GRC process follows this approach where the utility absorbs the costs of over spending and earns additional profits for underspending, but the overall impact is minimized by fact that a significant portion of utility revenue is collected through balancing accounts which allow the utility to adjust future revenue collection based on actual spending related to that account.

Proposals such as tying utility revenue collection to inflation indices could be part of a PBI paradigm, but tying utility revenue collection to external indices that are not directly related to utility needs could result in the utility underspending and failure to meet state goals of reliability, safety, and GHG reductions.

Setting the right performance incentives for attaining specific outcomes will be challenging. Performance incentives target specific outcomes, but they can also lead to unintended consequences such as decline in overall quality of service by diverting the utility's attention from prudent longer-term investments or innovation that solely earns a

performance incentive. In the end, it would be impossible for regulators to have a performance incentive for every utility function.

## **Create Publicly Owned Transmission or Power Authority to Invest in Infrastructure at Lower Costs.**

A publicly owned entity that has the authority to invest in or build new generation and transmission can borrow money at lower interest rates than a privately owned utility, does not pay taxes, and does not need to earn a profit on the investment. According to a report prepared by Net Zero California and the Clean Air Task Force, the savings from publicly financing new transmission could range from a 25% to a 57% reduction in overall costs of meeting CAISO's estimated 20 year transmission needs. On the high end, this could represent \$3 billion in ratepayer savings per year.<sup>19</sup>

Public ownership does not necessarily mean public operations – the private sector can continue to operate and maintain transmission assets. In fact, private sector operation may be desirable for efficiency and – by using a special purpose vehicle to implement projects – can shield a public owner from certain operational risks.

There have been multiple proposals for a public investment authority over the years. In response to the 2001 energy crisis, the Legislature created a Power Authority which had the ability to buy and build its own generation. In reality, the Authority only funded some energy efficiency projects and was then defunded by Governor Schwarzenegger. In 2022, SB 1032 (Becker) proposed a transmission authority that could finance policy driven transmission projects identified by the CAISO.

The challenge with many of the past proposals was addressing the question of what public entity would fund the new transmission investments and how it would interact with the private investments already being made. There has been a concern with setting up a new state entity to fund and oversee these investments as that could add a new layer of government in an already complicated process. Some existing entities such as the Department of Water Resources and the I-Bank already have experience with financing large infrastructure products, but in the past they have been unwilling to take on this new role.

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<sup>19</sup> Wired for Savings: [https://drive.google.com/file/d/1O7Rxq5FJhyf4Akj2\\_nZAtxcigSwiLy-l/view](https://drive.google.com/file/d/1O7Rxq5FJhyf4Akj2_nZAtxcigSwiLy-l/view)

## Move Current Ratepayer Costs to Other Funding Sources

Some electric ratepayer bills fund programs that provide broader societal benefits beyond electric usage. For example, low-income assistance programs could be viewed as poverty reduction programs and not a specific energy program. Much of vegetation management work and wildfire forecasting conducted by the utility will help reduce the risk of catastrophic wildfires even if they are not caused by utility equipment. Moving some or all of these costs to the state's general fund or an alternative funding source will reduce electricity costs.

However, the General Fund and other alternative funding sources are more susceptible to changes in the economy and will be subject to cuts in years when tax revenues are down. This means these programs will need to compete with many other state priorities and are at risk of being underfunded at times when they are needed the most. Additionally, the CPUC has clear constitutional authority to raise electricity rates to fund any program related to electricity usage, but in many situations the Legislature would need a 2/3rd vote to create a new program that is funded outside of the General Fund.

## Cut Energy Efficiency Programs

A portion of ratepayer bills fund programs designed to promote energy efficiency. Some of these programs are specifically targeted at low-income customers while others are targeted at broader user groups. These programs are funded through the public purpose programs portion of customers' electric bills. Some of these programs are required to meet a cost effectiveness test such that the programs ultimately save ratepayers more money than they cost. The low-income programs do not need to meet cost effectiveness tests since they are intended to support societal needs.

While cutting some of these programs outright will result in some ratepayer savings the impacts on bills could be small and some customers will see increases in their bills. As discussed above, the Public Purpose Programs costs have remained stable over the past 10 years with funding for CARE decreasing by 2% and funding for the mainstream Energy Efficiency programs decreasing by 32% on an inflation adjusted basis. There has been some focus on the growth in energy efficiency funding since 2020, but 2020 is a poor choice to use as a baseline year for any energy program since the COVID lockdowns dramatically reduced program deployment. Additionally, since these programs are designed to reduce energy demand, they have the impact of reducing energy bills for the participating customers. Cutting the programs will result in increased energy usage and increased bills for those customers.

However, the energy efficiency programs cost effectiveness tests have been slow to evolve and respond to changing policy goals in California. This means that while some programs may meet the current cost effectiveness tests, they may not reduce ratepayer costs over the long term as demand for electricity increases to decarbonize the transportation and building sectors of the economy. This changing landscape could be met through new policy directions on goals for energy efficiency from the Legislature and the CPUC opening a new proceeding focused on modernizing energy efficiency separately from ongoing work to oversee existing energy efficiency programs.

## **Provide Stakeholders with Better Access to the Data Needed to Make Informed Decisions**

The IOUs largely set the agenda in proceedings impacting their revenue, such as the General Rate Cases (GRC). They generally file the initial proposals that frame the discussions, and they have more access to critical information than any stakeholder or the CPUC staff. The main challenge the CPUC and intervenors face in debating utility spending is one of resource asymmetry. The regulated IOUs have more staff, information, and more knowledge of their systems than the regulators or intervenors.

Given the size and complexity of the GRC spending proposal, other parties do not have the tools needed to propose a comprehensive alternative spending plan and instead are largely constrained to looking for and trying to justify reductions in specific spending items proposed by the IOUs. Additionally, even though the CPUC process in theory places the burden on the IOUs to show that their proposal is reasonable, the scope of the proposal is so large that many areas of spending go unchallenged and the burden is on opposing parties to show that spending proposals are not reasonable.

One way to address the complexity of the GRC process and give stakeholders more tools to question utility spending proposals is to move the process away from working off a single spending proposal and require the IOUs to submit multiple plans that would then give parties more information on what alternative spending plans would entail. The IOU could submit a preferred spending plan and an “inflation constrained plan”. Such multiple proposals would give stakeholders more tools to look for reasonable reductions in utility spending and would shift some of the real burden of justifying increases as reasonable back to the utility.

Other proposals have been made to require the utilities to provide more details on actual costs and profits. Some of this type of reporting already occurs in several reports published by the CPUC each year (the AB 67 and SB 695 Reports) and are provided by the

utilities to the CPUC on a quarterly basis as part of the CPUC's [Cost Tracker Tool](#). In an August 2023 audit, the State Auditor specifically recommended that the CPUC develop clearer documents that explain what is driving rate increases and their impacts on customer bills. The CPUC partially disagreed with this recommendation, stating that the utilities were responsible for this type of communication.<sup>20</sup>

Additionally, while the size of the staff at the CPUC who work on electric utilities has grown by more than 50% over the past 15 years, this growth may not match the growth in complexity of proceedings associated with cost recovery. Moreover, it is the five Commissioners who set the priorities of the CPUC and must guide the decisionmaking process. As the number of issues the CPUC must address grows, the Commissioners have less and less time to focus on GRCs and other proceedings that directly impact rates and bills. This increased workload only increases the asymmetry of information and resources the IOUs can bring to bear at the CPUC.

## Change the Timing of Cost Collection

While the overall amount of revenue the utilities collect and the resulting large increases in rates have been the most important barriers to affordability, the timing of when new revenue requirements go into rates also impacts affordability. This is for two reasons, a) even if overall rates remain affordable for most households, sudden large and unexpected rate increases can create problems for individual household budgets, and b) if utility revenue collection can be spread over longer periods of time or to a time when there will be known reductions in utility cost recovery, the utility and the CPUC can allow for the same cost recovery but keep monthly bills lower.

For example, PG&E increased rates by more than 20% in the first quarter of 2024, followed that with a 9% decrease in rates starting July 1, 2024, and anticipates additional rate increases later in 2024 or in 2025. If the utility had better planned for the mid-year rate decrease they could have reduced the rate increases at the start of the year and provided customers with a more stable and predictable bill.

Similarly, PG&E's proposal to create a financing order for wildfire mitigation operating expenses could result in a rate decrease of 7.2% in 2025 relative to what it would otherwise be, but would add 1.1% for each of the following 9 years.

It should be noted that these numbers are based on a snapshot in time from filings made in the spring of 2024. The fact that rate projects change on a quarterly basis is an

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<sup>20</sup> See *"The California Public Utilities Commission and Cal Advocates Can Better Ensure That Rate Increases Are Necessary"* <https://information.auditor.ca.gov/reports/2022-115/index.html#section1>



example of the asymmetry of information in the utilities' favor. In this case it will be easy for the utility to challenge the numbers in the table below by using more updated information that may not even be available to the public.

**PG&E Forecasted Bundled Residential Average Rates and PG&E Forecasted Rates Adjusted for Financing Order (nominal \$/kWh)**

BUNDLED RESIDENTIAL AVERAGE RATE	2024	2025	2026	2027	TOTAL CHANGE
PG&E Forecast Rate <sup>21</sup>	\$0.371	\$0.400	\$0.435	\$0.460	24%
Percent Change If PG&E Financing Order is approved in Rate <sup>22</sup>		-7.2%	+1.1%	+1.1%	
Rate If PG&E Financing Order Is Approved		\$0.372	\$0.440	\$0.465	25.3%
Year over Year Rate change without Financing order		7.8%	8.75%	5.75%	
Year over year rate change with finance order		0.3%	18.3%	5.7%	

In this case the financing order helps eliminate a forecasted rate increase of 7.8 % in 2025 but then results in rate increases of 18.3% in 2026.

<sup>21</sup> 2024 SB 695 Report, page 66.

<sup>22</sup> PG&E Application in A.24-06-013, Attachment F Table 1 and Table 2.

## Change the Timing of CPUC Decisions

Another factor that impacts the size and timing of rate increases is the chronic challenge the CPUC has in completing GRCs and other applications for cost recovery in a timely manner. It is now commonplace for the CPUC to approve GRC proceedings multiple months after the new GRC cost recovery cycle has begun. When this happens, the utility cannot increase rates to cover new costs associated with the first year of the new GRC cycle. When the CPUC ultimately approves the GRC the utility is allowed to recover those costs retroactively. So while the utility ultimately collects the same amount of funding, the utility ratepayer sees a larger rate increase to cover both current year spending and utility under collections from prior years.

## Leverage Financing Orders or Dedicated Rate Components

While the utilities already finance capital improvements through bonds or issuing new equity, they can lower the cost of financing when the CPUC creates a specific financing order and dedicated rate component to fund the borrowing. This process creates less risk to lenders and thus lowers the overall cost of borrowing. The lower cost is passed on to ratepayers.

As discussed above PG&E has recently proposed using this mechanism to fund operating and maintenance expenses related to wildfire mitigation and vegetation management. Borrowing money via a financing order to fund operating and maintenance expenses raises overall ratepayer cost since these costs would otherwise normally be paid for in the year they are accrued and thus there are no borrowing costs. However, financing these costs could allow the utility to lower rates in the current year and spread these costs over many years. In contrast, for capital projects, the use of financing orders with a dedicated rate component would reduce the ultimate ratepayer cost due to the lower financing cost.

## Change Rate Design

Separate from reducing how much the utilities are allowed to collect in rates, the CPUC and utilities can reduce affordability issues by changing how the revenue is collected in rates. This process is more of a zero-sum game since changes in rate design only change how costs are allocated and recovered, without changing the costs themselves. For example, rate design changes that lower bills for some customers will necessarily increase bills for other customers or would lower bills in part of the year only to create higher bills in another part of the year.

The CPUC recently adopted a change in rate design that will lower bills for many low-income customers by creating a tiered fixed charge. This new rate allows the utility to collect more of their costs through a fixed monthly charge which will then result in a lower volumetric charge. The fixed charge will be lower for low-income customers. Overall, this will mean that many low-income customers will end up with lower bills than they would otherwise have. However, higher income customers and customers who use little electricity each month will see their bills go up.

Another way to help reduce bills for the customers who are most impacted by increased electricity rates is to focus on rate design for customers in the hotter climate zones in the state and customers who are electrifying their homes by changing the baseline allowances.

All residential customers receive a baseline allowance on their electric bills which is intended to assure that the minimal electric usage each household needs remains affordable. The baseline is set based on the average household electric usage in each climate zone in the state. Thus, the bill credit for customers in the hottest parts of the state where electric demand is driven by summertime AC usage is higher than the bill credit for customers in the cooler parts of the state.

Increasing the baseline allowances for customers in the hottest regions of the state would reduce their overall electric bills and would especially reward customers who continue to conserve electricity and keep their usage close to the new baseline amounts. However, this change would also result in increased bills for customers in cooler parts of the state and potentially for customers who could not keep their usage near the baseline limits.

A similar change in baseline allowances could be approved for customers who electrify their homes, so that the increased electric demand from electrification does not disproportionately increase their bills.

California has a history of setting baselines in statute as means to keep bills lower for customers who use less electricity. As part of a package of bills after the energy crisis of 2001, the Legislature froze the baseline rates. This helped keep bills lower for some customers but as utility costs increased overtime the entirety of that cost increase was recovered through higher tiered rates. This ultimately created a number of unintended consequences and hardships on customers with high air conditioning needs in the summertime. The Legislature ultimately eliminated the statutory caps in 2013 as part of a series of reforms in AB 327 (Perea).



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