

Advancing Affordable Electricity in California: Policy Levers to Address Rising Rates

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SUMMARY: California’s electricity rates have surged beyond inflation, straining households and businesses hindering decarbonization efforts. Wildfire mitigation measures, costly infrastructure investments, and rooftop solar subsidies all contribute to rising costs. Without changes in how utilities recover expenses, rates will continue to climb. To address these challenges, the Public Advocates Office recommends several strategies including: reducing operating and capital expenses, phasing out non-cost-effective programs, modernizing subsidies and rate structures, and employing alternative financing methods. Implementing these measures could reduce rates by about 4–5% initially, with even greater savings accruing over time.

BACKGROUND

Electricity rates in California have surged, far outpacing inflation over the past three years. This rise places undue financial strain on households and businesses and jeopardizes the state’s ambitious decarbonization goals. Key cost drivers include:

1. Wildfire mitigation efforts
2. Investments in transmission and distribution infrastructure
3. Rooftop solar subsidies

Without meaningful changes regarding how utilities recover costs associated with utility operations, rate design, and policy implementation, the upward trends in electricity rates will persist.

POLICY LEVERS TO ADDRESS RISING RATES

Policymakers have multiple tools at their disposal to reduce utility rates and bills. The Governor’s October 2024 Executive Order underscores the urgency of improving utility bill affordability by prioritizing how customer funds are spent.¹ To address these challenges, policymakers can leverage the following four strategies:

1. **Reduce utility operating expenses (O&M):** Lower the cost of day-to-day operations, with savings reflected in customer bills the same year reductions are authorized.
2. **Lower capital costs:** Minimize expensive construction projects and explore lower-cost financing options for infrastructure investments.
3. **Phase out costly programs:** Remove programs that unnecessarily increase overall customer costs, focusing on affordability.
4. **Revise subsidies and rate structures:** Modernize rate designs to align with affordability goals, promote equity, and support electrification.

While some measures, such as reducing program expenses or revising rate structures, provide immediate relief, others – like cutting O&M or capital costs – yield long-term benefits as investments are recovered over time.

KEY POLICY RECOMMENDATIONS

REDUCE FINANCING COSTS FOR CAPITAL PROJECTS

To mitigate wildfire risk, California utilities, particularly PG&E, are replacing above-the-ground distribution lines with underground wires to mitigate wildfire risks. Although effective, undergrounding is costly and time intensive. Alternatives such as covered conductors can achieve risk reduction more quickly and affordably.²

¹ See: <https://www.gov.ca.gov/2024/10/30/governor-newsom-issues-executive-order-tackling-rising-electric-bills/>.

² See: Public Advocates Blog, <https://www.publicadvocates.cpuc.ca.gov/press-room/commentary/231117-undergrounding-pge-grc>.

Undergrounding requires careful evaluation due to its high costs. There is a profit motive for utilities to pursue capital-intensive projects,³ as they earn a “return on equity” (ROE) on these investments which increases overall costs for ratepayers.⁴ Without proper oversight, this profit motive can lead to prioritizing expensive projects over more efficient alternatives.

There are a variety of methods to finance infrastructure projects other than the typical utility-funded mechanism that results in the investment earning the utility’s ROE, including:

- **Securitization for Specific Projects:** Replace high-ROE costs with lower-cost financing, reducing long-term expenses for customers.
- **Public-Private Partnerships and Public Ownership Models:** Consider alternative ownership and financing arrangements for projects driven by policy mandates.

Example: Adopting securitized financing for undergrounding projects could provide significant long-term rate relief for customers by replacing high ROE costs with lower financing costs. In Figure 1 below we see the cumulative cost savings of securitizing undergrounding work. For reference, Figure 2 shows the estimated annual capital costs of undergrounding. Using utility proposed undergrounding figures from recent general rate case filings, the Public Advocates Office conservatively estimates that this approach could save customers \$41 million in 2025, with savings potentially reaching \$310 million annually by 2026.⁵

Figure 1. Cumulative Cost Savings of Securitizing Undergrounding Work – Illustrative Example

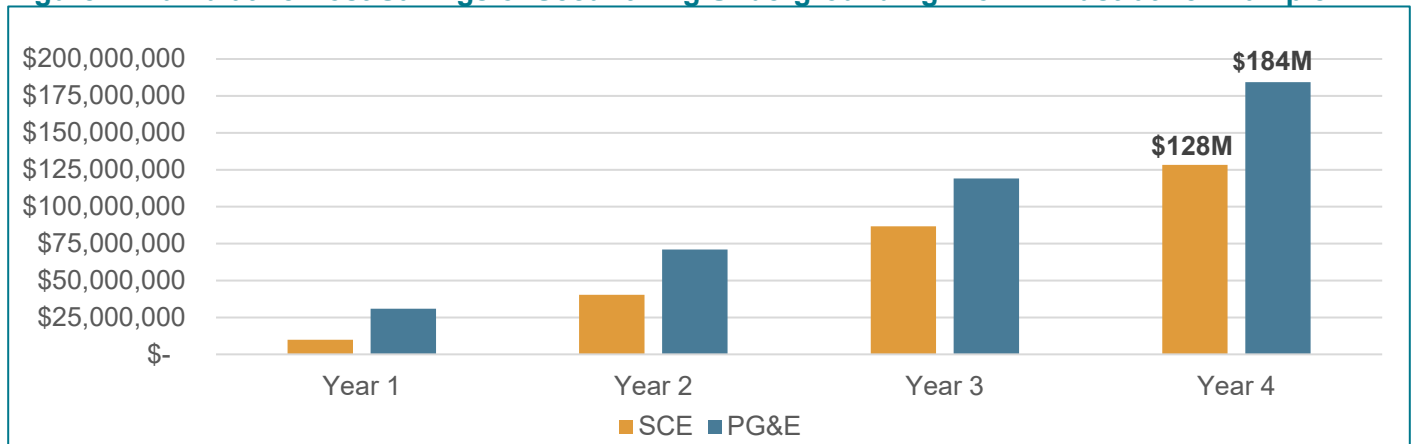
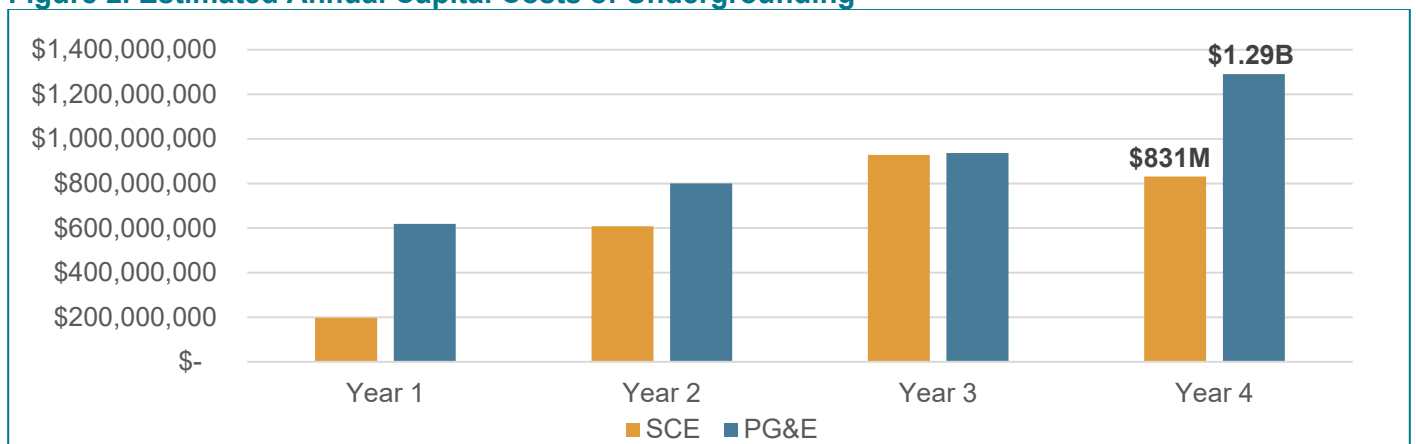


Figure 2. Estimated Annual Capital Costs of Undergrounding



³ See: RMI Blog, “3 Reasons Why Climate Players Should Care About Utility Rate of Return” <https://rmi.org/3-reasons-why-climate-players-should-care-about-utility-rate-of-return/>, accessed 8/23/2024.

⁴ See: Borenstein, Severin, “What Does Capital Really Cost a Utility?” *Energy Institute Blog*, UC Berkeley, October 3, 2022, <https://energyathaas.wordpress.com/2022/10/03/what-does-capital-really-cost-a-utility/>, accessed 8/23/2024.

⁵ Estimates based upon undergrounding capital expense forecasts in SCE, PG&E, and SDG&E General Rate cases, utilizing a conservative difference between the ROE and securitization rate of 5%. If all wildfire hardening forecasts were included, the cumulative savings from securitization provided in 2026 would exceed \$400M. Yearly savings assume \$816 Million of Capital securitized in Year 1, and a total of \$6.2 Billion securitized by Year 4.

MODERNIZE SUBSIDIES AND RATE STRUCTURES

Rate design – the system for calculating and setting customer bills – does more than just collect the revenue utilities need to operate. It also serves as a critical policy tool. Certain rate structures can guide customers to use energy in ways that ease pressure on the grid, such as time-of-use rates, while others provide incentives for installing rooftop solar. However, the rapid growth of subsidies embedded in today’s residential rate structures is driving up costs for customers and making electric service less affordable. These higher rates, in turn, hinder California’s clean energy goals, which rely on shifting from fossil fuels to renewable and other low-emission electricity sources.

ADDRESS THE UNSUSTAINABLE GROWTH IN ROOFTOP SOLAR SUBSIDIES

Subsidies provided through the Net Energy Metering (NEM) program are a significant driver of high electricity rates.⁶ These subsidies, funded by customers without rooftop solar systems, have two main components:

1. **Excess Energy Compensation:** NEM customers receive payments at retail electricity rates for their exported energy, often exceeding its actual market value.
2. **Grid Maintenance Costs:** NEM customers avoid covering their fair share of grid operations and maintenance expenses, shifting these costs to non-solar customers.

Because these subsidies increase with each rise in retail electric rates, the cost burden on non-solar customers continues to grow. The Public Advocates Office estimates that by the end of 2024, this cost shift will reach \$8.5 billion annually, up from \$3.5 billion in 2021.

There are several policy options that could help reduce the cost shift while ensuring continued growth in rooftop solar:

- **Adjust Compensation Rates for Legacy NEM Customers:** Setting export rates based on the year a customer enrolled (e.g., 2017 for NEM 1.0, 2023 for NEM 2.0) could reduce the legacy cost shift by \$1.2 billion (14%) in 2024, with greater savings as retail rates continue to rise.⁷
- **Transition Legacy NEM Accounts at Property Sale:** Moving legacy NEM accounts to the updated subsidy rate – called the Net Billing Tariff (NBT) – upon property transfer could gradually reduce the cost shift – by 1-2% annually in the first three years and up to 8% per year by 2030.

These sensible modifications will reduce the cost burden on non-solar customers while ensuring solar adopters still earn a fair return on their investment. This approach maintains rooftop solar’s role in California’s clean energy goals while preventing unchecked cost increases tied to utility rate hikes.

REFORM RESIDENTIAL RATE STRUCTURES TO PROMOTE EQUITY AND ELECTRIFICATION

Implementing a fixed charge in rate design can help distribute costs more fairly among customers and reduce electricity rates across the board. However, it does not directly address the underlying factors driving rising utility expenses. The CPUC’s recent flat rate decision (D.24-05-028) is expected to lower the cost of electricity usage (the volumetric rate) by about 13% starting in fall 2025. Yet, increases in overall utility costs may offset much of these savings, keeping rates unacceptably high. For instance, SDG&E’s rates are projected to climb by 12.2% by the end of 2025.

While this flat rate decision is an important first step, additional measures can further improve outcomes for customers. The CPUC should consider:

- **Incorporating More Fixed Costs:** Increasing the portion of utility fixed costs included in the flat rate ensures charges more accurately reflect the true cost of service.

⁶ In December 2022, the CPUC revised the incentive structure for new systems (after April 2023) that reduced the payment for exported energy. This new tariff is called the “Net Billing Tariff” (or NBT). Although an improvement, the NBT provides a large subsidy for installing solar (especially with battery storage), but the overall cost shift from the post-April 2023 NBT systems is small compared to the massive burdens created by the legacy NEM 1 and NEM 2 customers.

⁷ Legacy NEM customers are those that started participating in NEM 1.0 (1996 – 2016) or NEM 2.0 programs (2016 – 2023).

- **Establishing Tiers and Expanded Discounts:** Creating tiers for incremental flat rate charges and extending discounts to include middle-income households, beyond the current income-qualified programs, can enhance affordability and fairness.
- **Utilizing Cap-and-Trade Revenues:** Using the funds currently allocated to the twice-annual “California Climate Credit” to subsidize flat rate discounts would make energy more affordable for lower- and middle-income customers.

By implementing these refinements, the flat rate structure can offer more significant and equitable relief to consumers while addressing the systemic challenges that drive electricity costs upward.

PHASE OUT NON-COST-EFFECTIVE PROGRAMS FROM ELECTRICITY RATES

Despite facing a crisis in electricity rates, many programs funded through utility bills continue to expand even though they are not cost-effective. These programs often cost more than the savings they deliver and fail to meaningfully reduce utility operating expenses. Although most of these programs are funded through the CPUC’s energy efficiency program, many have very little to do with reducing energy consumption. While some programs may provide important social benefits, funding them through customers’ energy bills effectively acts as a regressive tax. A more equitable approach would shift funding for these non-cost-effective programs to alternative sources.

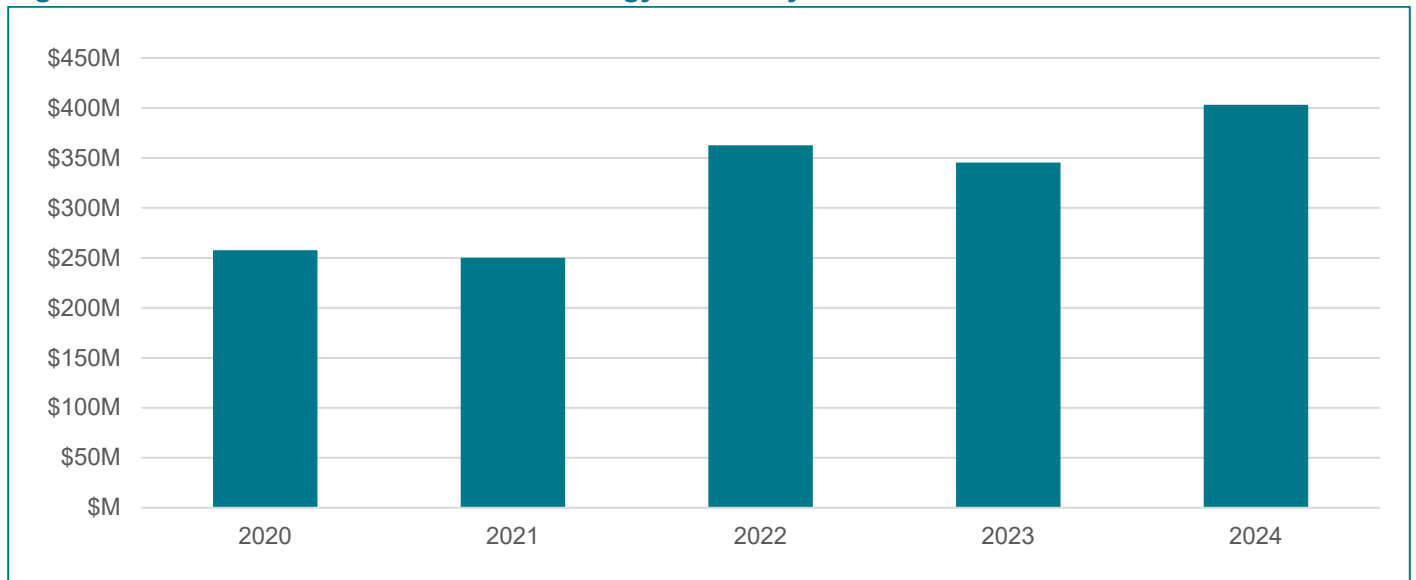
To balance the social value of these programs with the need for affordability, we recommend at least prohibiting new, non-cost-effective programs from being funded by electricity rates and gradually phasing out such funding for existing programs. The Public Advocates Office suggests several cost-reduction strategies:

- **Eliminate Non-Cost-Effective Programs:** Removing all energy efficiency programs that do not provide safe, reliable service or do not deliver measurable energy savings would cut costs by about \$527 million annually for the state’s three largest utilities.⁸ For example, some programs addressing food deserts or supporting high school and community college courses, while socially beneficial, are better suited for taxpayer funding than ratepayer funding.
- **Sunset the CalSHAPE Program in 2025:** Ending the CalSHAPE program and returning unallocated funds to the California Energy Commission would deliver hundreds of millions of dollars in immediate relief. CalSHAPE currently uses customer funds for a state-administered grant program for school infrastructure improvements. A sunset provision by 2025 would create near-term savings.
- **Cap Energy Efficiency Budgets at 2020 Levels:** Setting a budget cap at 2020 levels would immediately reduce overall customer costs by roughly \$387 million in 2025.⁹ Despite increasing investment, many of the programs funded today are not cost-effective and do not primarily focus on cutting energy use. Capping the budget and prioritizing spending would still achieve energy savings while easing the financial burden on customers.

⁸ \$2.1 billion / 4 years = \$527 million is the estimated amount of non-cost-effective spending each year. Budget figures are drawn from CPUC Decisions 23-06-055, 24-08-003, and 21-11-013, as well as CEDARS. Non-cost-effective program TRC scores are derived from Annual Electric True-Up Advice Letters and exclude administrative costs and EM&V.

⁹ \$411M in estimated savings represents the difference between the program year 2020 budget and the annual average budgets for program years 2024–2027. Because these budgets do not include administrative costs or EM&V, the estimated savings are conservative. The 2020 budget was \$426 million, while the annual average budgets for 2024–2027 total \$837 million. To achieve additional savings beyond this amount in 2025, the CalSHAPE program would also need to sunset immediately. For more information on CalSHAPE, visit: <https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program>

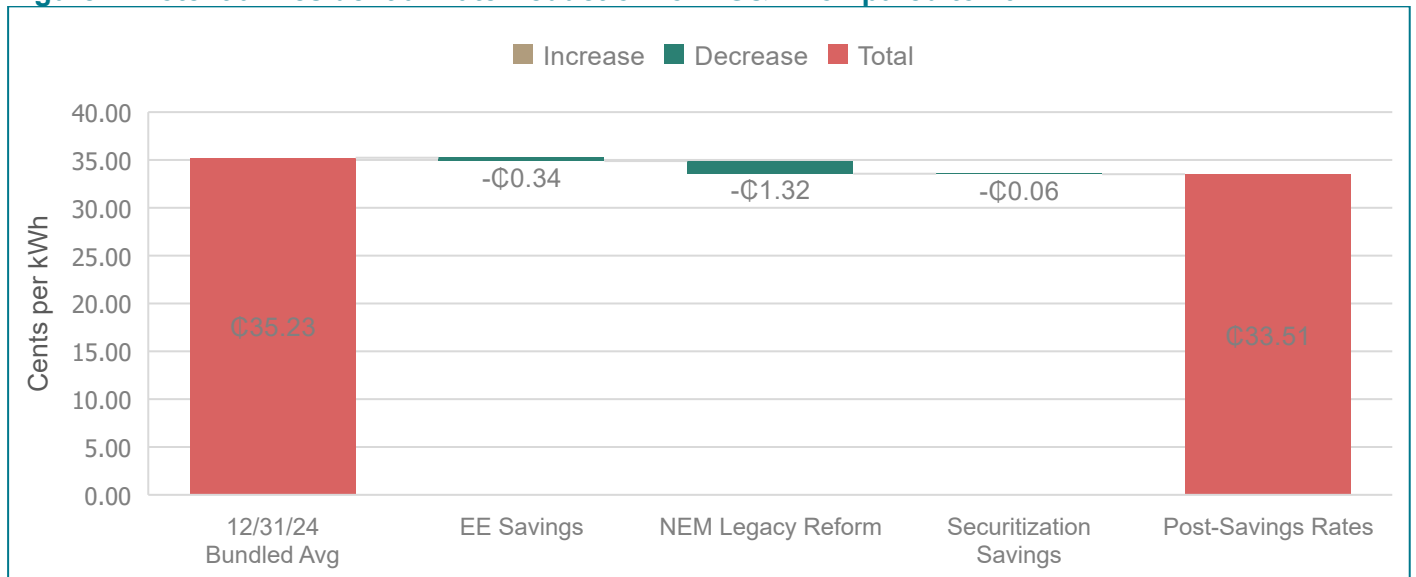
Figure 3. Growth of Non-Cost-Effective Energy Efficiency Over the Last Five Years¹⁰



CUMULATIVE BENEFITS OF COST SAVING OPPORTUNITIES

Removing non-cost-effective energy efficiency (EE) programs,¹¹ transitioning legacy NEM accounts,¹² and securitizing grid hardening expenditures would reduce electric rates as shown below for each IOU.¹³ Figures 4 to 6 show the potential residential electric rate reduction, with bundled average rates from December 31, 2024, as the baseline.

Figure 4. Potential Residential Rate Reduction for PG&E Compared to 2024



¹⁰ Unless otherwise noted, these budget figures for program years 2020–2024 exclude administrative costs and EM&V. They also exclude programs that have closed or are closed to new commitments, but include programs where closure is pending. Figures include the 2024 budgets for SDREN (as authorized in D.24-05-040) and the two Rural RENs (as modified in D.24-09-031). Note that the budgets for the Northern and Central California Rural RENs include administrative costs and EM&V.

¹¹ These budgets are based on D.23-06-055, which authorizes utilities to recover the approved budgets through rates. They include Rural REN, SDREN, Inland REN, and Marin Clean Energy (MCE) budgets as approved in D.24-08-003, D.21-11-013, and D.23-06-055, respectively. For the Inland REN, a budget allocation factor of 0.775 is assumed for SCE based on the cost recovery figures submitted in SCE’s and SoCalGas’s True-Up Advice Letters in late 2023. According to these Advice Letters, 51.3% of MCE’s budget, 60.1% of PG&E’s budget, 64% of SCE’s budget, and 41.4% of SDG&E’s budget are assumed to be non-cost effective.

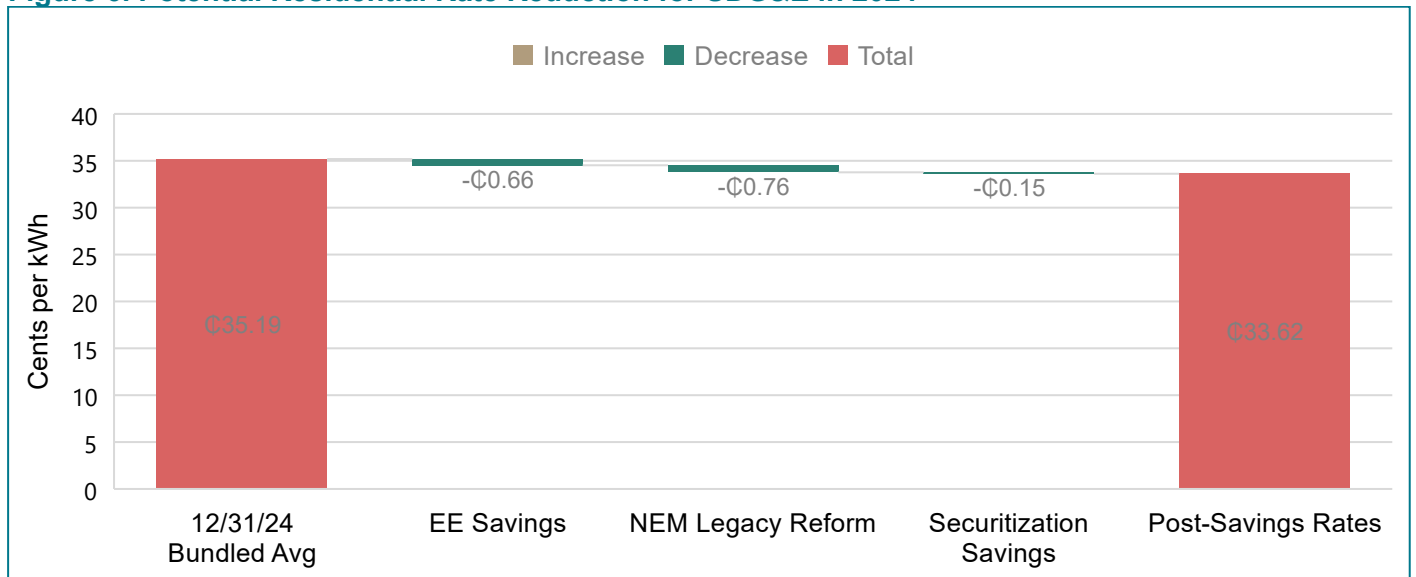
¹² This cost shift elimination reflects the implementation of the Grid Access Charge and Income-Graduated Fixed Charge.

¹³ It is assumed that securitizing grid-hardening capital expenditures (CAPEX) would reduce each IOU’s revenue requirement by 5% of the CAPEX.

Figure 5. Potential Residential Rate Reduction for SCE in 2024¹⁴



Figure 6. Potential Residential Rate Reduction for SDG&E in 2024



The EE savings figures are derived from budget numbers authorized by CPUC decisions and CEDARS data. These estimates do not account for the additional savings that could result from refunding CalSHAPE funds. The NEM Legacy Reform scenario only reflects the initial adjustment of compensation rates for legacy NEM customers, aligned with the year of their enrollment, thereby reducing the current NEM cost shift. Over time, greater savings would be achieved by gradually transitioning legacy NEM accounts to updated subsidy rates when properties are sold. Securitization impacts are shown for the initial year of implementation, with further savings accumulating in subsequent years.

In summary, applying these policy levers can yield near-term rate reductions of approximately 4–5%. Moreover, these strategies open the door to more substantial long-term savings, particularly through legacy NEM reforms and securitization. Prompt implementation will help ensure immediate cost relief and enhance the long-term affordability of utility rates.

Please contact Mary Flannelly at mary.flannelly@cpuc.ca.gov with any questions.

¹⁴ For illustrative purposes, SCE’s grid hardening capital expenditures from its most recent GRC Test Year 2025 is used to estimate securitization savings in 2024.