# Incorporating income-based fixed charges into California electricity rates

*Matthew Freedman*
*Staff Attorney*
*The Utility Reform Network*
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TURN
THE UTILITY REFORM NETWORK
Lower bills. Livable planet.

# TURN'S MISSION AND HISTORY

**Founded in 1972 to fight unfair rate increases**

- Electricity, natural gas, telecommunications
- Focus on opposing unreasonable rate increases, holding utilities accountable for poor performance and limiting profits for utility shareholders
- Leading representative of residential customers in CPUC proceedings

**Leader in efforts to promote affordability and equity**

- Fought to expand discounts for low income customers
- Highlighted growing customer disconnections and arrearages that led to shutoff restrictions and financial support from state general fund

**100% committed to 100% decarbonization of the electricity grid**

- Sponsored series of legislative efforts to enact, revise and expand the California Renewable Portfolio Standard
- Actively involved in the passage of SB 100 (DeLeón 2018) that established a 100% zero carbon electricity target by 2045 and SB 1020 (Laird 2022) that accelerated the 100% target for state agencies (to 2035) and added interim targets (90% by 2035, 95% by 2040) for the rest of the system.
- Currently working jointly with solar industry, environmental and environmental justice groups to establish a new community solar program.

# Building Rates in 3 Not-so-Easy Steps

Revenue Requirements

Revenue Allocation

Rate Design

# RATE DESIGN BASICS

**Steps to Development of Retail Rates**

- Determination of Revenue Requirements (includes approved IOU spending)
- Allocation of approved costs between customer classes
- Development of rate design to collect approved costs for each class

**Basic rate design elements**

- Fixed charges
- Demand charges (coincident or non-coincident to peak period)
- Usage-based charges

**CPUC Rate Design Principles (revised 2023)**

- Essential needs should be met at an affordable cost
- Rates should be based on cost causation
- Encourage economically efficient energy use, GHG reductions, electrification
- Improve system reliability in an economically efficient manner
- Optimize the use of existing grid infrastructure to reduce long-term costs
- Rates and incentives should be understandable
- Avoid cross subsidies that do not transparently support state policy goals
- Technology specific and avoid unintended cost shifts
- Transition to new structures should include customer education and minimize/ consider bill impacts

# FIXED CHARGES

*HISTORICAL OPPOSITION, CHANGED CIRCUMSTANCES*

**TURN has a long history of opposing residential fixed charges**

- Concerns about adverse impacts on energy efficiency/conservation
- Concerns about adverse impacts on low-income/usage customers

**Changed circumstances + AB 205 justify a new approach**

- Rates have skyrocketed in the past decade
- Extraordinarily high rates provide more than adequate incentives for energy efficiency/conservation even with a fixed charge
- Electrification (building/transportation) is a new policy priority
- Greater portion of costs driving rate increases are unrelated to customer demand/usage (grid hardening, wildfire mitigation/liability)
- Dramatic growth in NEM participation shifts recovery of fixed costs to non-participants, has significant impacts on residential customer rates
- Opportunity to income-differentiate fixed charge can protect (and benefit) lower income customers

# POTENTIAL BENEFITS OF INCOME-BASED FIXED CHARGES

**Promotes equity and limits summer bill spikes**

- Bill reductions for low-income customers
- Bill reductions for larger users of electricity in hot climates
- Less seasonal bill volatility driven by variations in usage

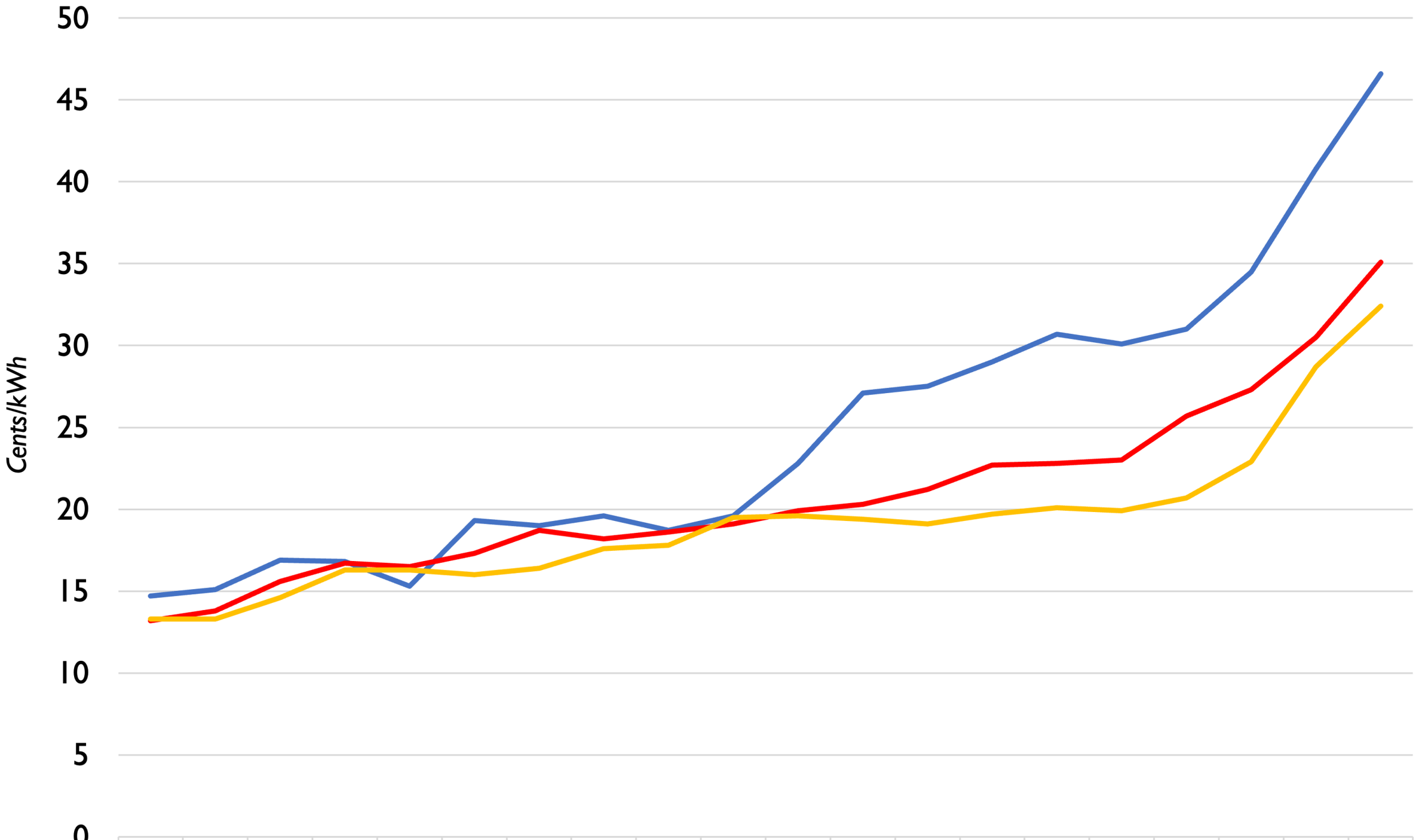
**Promotes investments in electrification**

- Lower costs of incremental usage caused by operating heat pumps, electric vehicles, other household electric loads.
- Accelerates customer payback period for electrification investments and reduces need for additional ratepayer/taxpayer funded subsidies
- Increased electrification loads will place downward pressure on retail rates

**Better aligns usage rates with value**

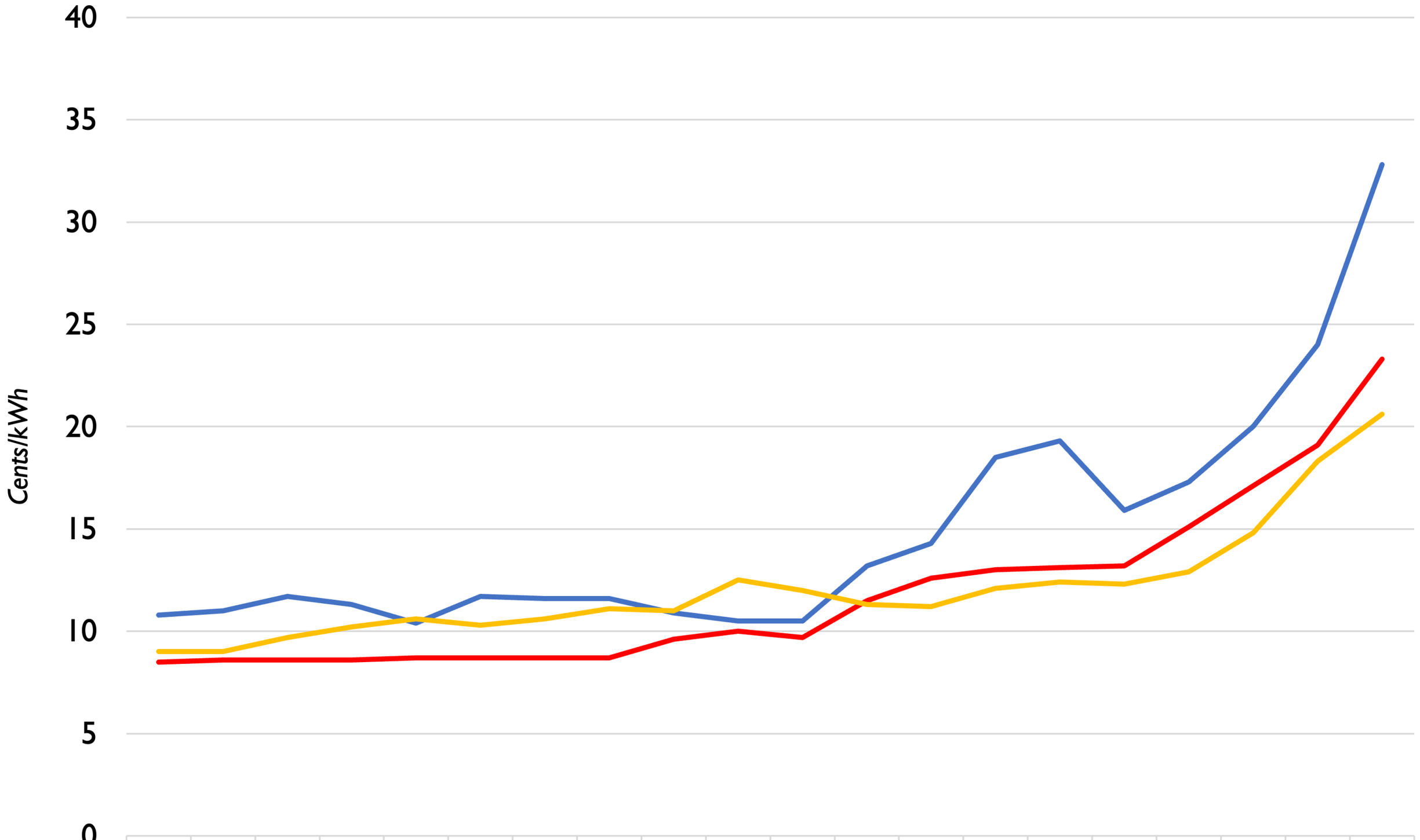
- Pricing more aligned with the costs of incremental consumption under the Avoided Cost Calculator
- Reduction in future cost shifting caused by adoption of distributed energy resources, reduces gap between compensation and value

# Bundled Retail Electricity Rates (Residential Non-CARE)




| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG&E | 14.7 | 15.1 | 16.9 | 16.8 | 15.3 | 19.3 | 19 | 19.6 | 18.7 | 19.6 | 22.8 | 27.1 | 27.5 | 29 | 30.7 | 30.1 | 31 | 34.5 | 40.8 | 46.6 |
| PG&E | 13.2 | 13.8 | 15.6 | 16.7 | 16.5 | 17.3 | 18.7 | 18.2 | 18.6 | 19.1 | 19.9 | 20.3 | 21.2 | 22.7 | 22.8 | 23.0 | 25.7 | 27.3 | 30.5 | 35.1 |
| SCE | 13.3 | 13.3 | 14.6 | 16.3 | 16.3 | 16 | 16.4 | 17.6 | 17.8 | 19.5 | 19.6 | 19.4 | 19.1 | 19.7 | 20.1 | 19.9 | 20.7 | 22.9 | 28.7 | 32.4 |

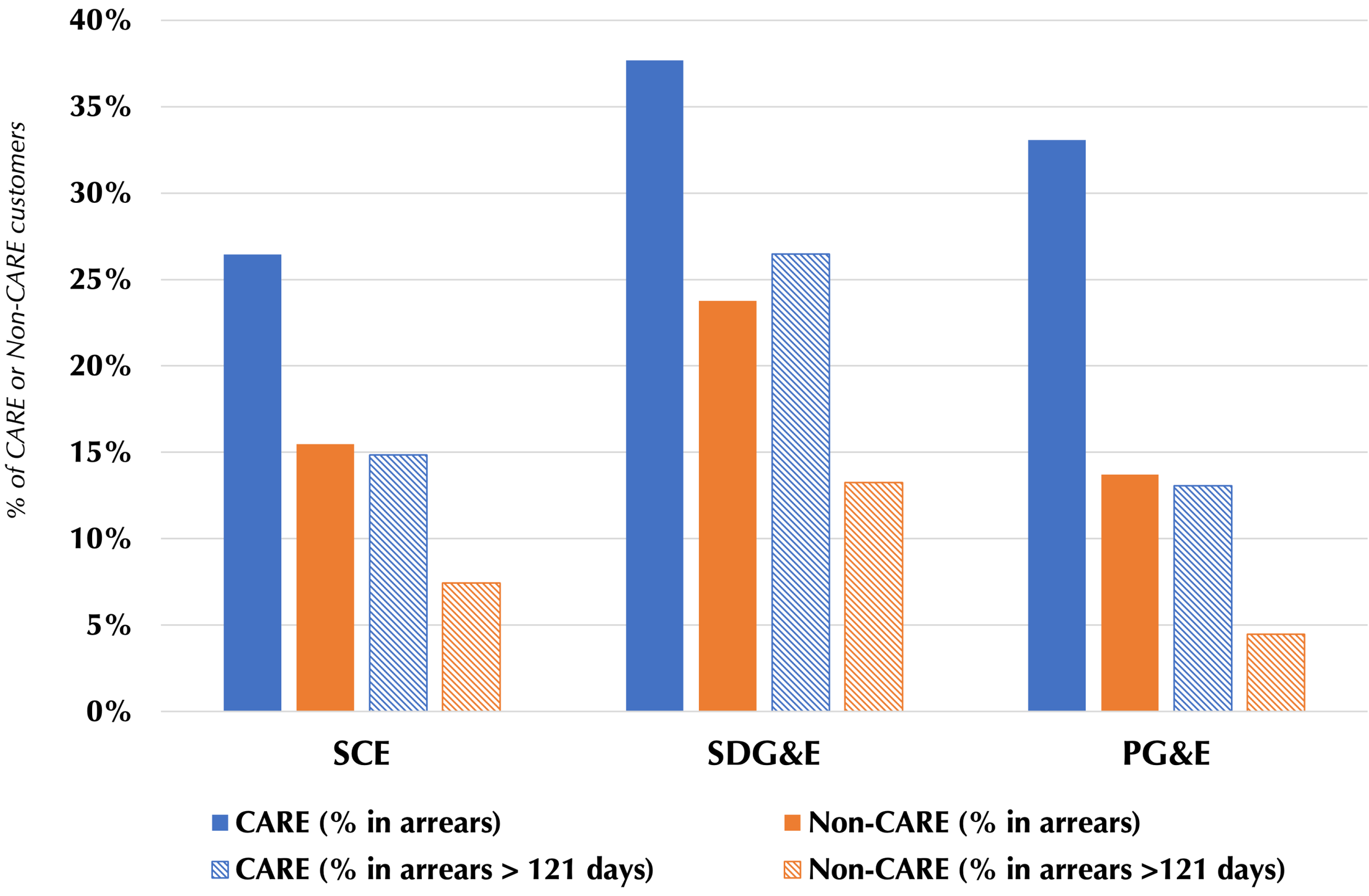
# Bundled Retail Rates (Residential CARE)



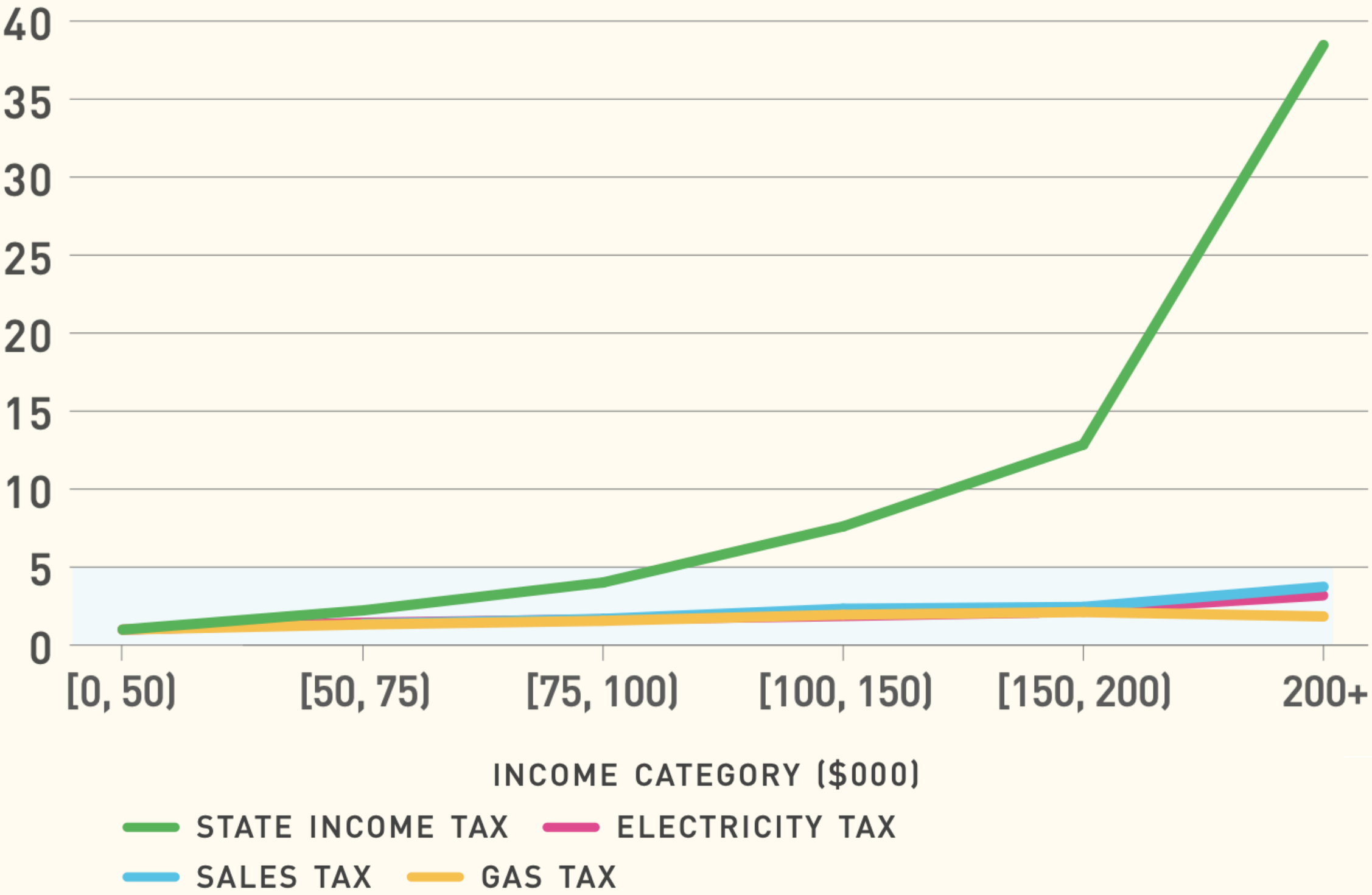

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG&E | 10.8 | 11 | 11.7 | 11.3 | 10.4 | 11.7 | 11.6 | 11.6 | 10.9 | 10.5 | 10.5 | 13.2 | 14.3 | 18.5 | 19.3 | 15.9 | 17.3 | 20 | 24 | 32.8 |
| PG&E | 8.5 | 8.6 | 8.6 | 8.6 | 8.7 | 8.7 | 8.7 | 8.7 | 9.6 | 10.0 | 9.7 | 11.5 | 12.6 | 13.0 | 13.1 | 13.2 | 15.1 | 17.1 | 19.1 | 23.3 |
| SCE | 9 | 9 | 9.7 | 10.2 | 10.6 | 10.3 | 10.6 | 11.1 | 11 | 12.5 | 12 | 11.3 | 11.2 | 12.1 | 12.4 | 12.3 | 12.9 | 14.8 | 18.3 | 20.6 |

# Residential customer electricity bill arrearages by IOU

*August 2023*



## FIGURE 5 Progressivity of Different Taxes in California (2019)



# AB 205 (2022)

*AUTHORIZATION FOR INCOME-BASED FIXED CHARGES*

## Modified residential fixed charge constraints

- AB 205 does not require the CPUC to adopt any fixed charges but does require that any residential fixed charges be income-differentiated
- Previous law allowed CPUC to authorize a residential fixed charge of up to $10/month ($5/month for CARE)
- AB 205 eliminates prior $10 cap on residential fixed charge
- Income-differentiated fixed charge must have at least three "income thresholds"
- A low-income ratepayer in each baseline territory must realize a lower average monthly bill without making changes in usage.

## Modified CARE discount calculation

- Previous CARE discount (30-35%) included any exemptions or discounts from other rates/costs (e.g. wildfire fund charge, wildfire securitization charge, CARE discount surcharge, discounts to a fixed charge)
- AB 205 specifies the 30-35% discount is <u>additional</u> to specific exemptions or discounts to other rate components including fixed charges.
- Increases net CARE discount by 3-5% for the three IOUs before accounting for additional benefits from income-based fixed charge.

# FIXED COST CATEGORIES

*TURN/NRDC RECOMMENDATIONS*

**Fixed**

- Power Cost Indifference Adjustment
- Marginal Customer Access Cost
- Marginal Distribution Capacity Cost (new business)
- Non-Marginal Distribution Cost
- Public Purpose Program costs - SGIP, CARE discount
- Wildfire hardening securitization
- Nuclear Decommissioning
- New System Generation Charge

**Non-Fixed**

- Generation
- Transmission (FERC regulated)
- Marginal Distribution capacity cost (secondary)
- Non-marginal distribution costs
- Wildfire fund charge (required by statute)
- Competition transition charge (required by statute)

# CPUC IMPLEMENTATION PROCESS

*INCOME GRADUATED FIXED CHARGES (IGFC)*

**AB 205 enacted in June 2022**

- IGFC proposal included in Governor's May budget revise
- Legislative hearing on IGFC and other budget proposals held on June 1

**CPUC initiated new Rulemaking in July 2022**

- 79 parties participating in process
- Party comments on scope/issues/principles - July-Aug 2022 / Dec-Jan 2023
- Briefs on statutory interpretation issues - Jan / Feb 2023
- CPUC decision on rate design principles - May 2023
- Opening/rebuttal testimony on Fixed Charges - May / June 2023
- Opening/reply comments on Implementation Pathways - July/August 2023
- ALJ ruling directing parties to submit FIRST version IGFC proposals
- Opening/reply briefs on FIRST version IGFC - October 6 / November 3
- Final CPUC decision on FIRST version IGFC - 1Q 2024

**Implementation Timeline**

- First version IGFCs (no new income-eligibility) - in rates by 2025-2027
- Second version IGFCs (new income-eligibility) - ??

# AVERAGE MONTHLY FIXED CHARGES

*VARIOUS PARTY PROPOSALS - SECOND VERSION*

| | | | | Default TOU Rate Avg Fixed Charge | | | Electrification Rate (if different) Avg Fixed Charge | | |
|---|---|---|---|---|---|---|---|---|---|
| **Party** | **Tiers** | **Income Graduation** | **Volumetric Rate Reduction** | **PG&E** | **SCE** | **SDG&E** | **PG&E** | **SCE** | **SDG&E** |
| **TURN/NRDC** | 3 | CARE; $0-$150k; $150k + | 21-24% | $37 | $36 | $37 | $47 | $46 | $48 |
| **SEIA** | 3 | CARE; FERA; 250% FPL + | 5-6% | $8 | $8 | $11 | | | |
| **PAO** | 6 | (CARE) < $50k; $50-100k; 100k +; (non-CARE) < $50k; $50-100k; 100k + | 17-19% | $27 | $26 | $33 | $27 | $26 | $33 |
| **IOUs** | 4 | < 100% FPL; < 250% FPL; < 650% FPL; 650% FPL + | 31-43% | $53 | $49 | $75 | $53 | $49 | $75 |
| **Sierra Club** | 5 | CARE/FERA; < 80% AMI; < 125% AMI; < 200% AMI; 200% AMI + | 17-21% | $24 | $32 | $32 | $27 | $35 | $36 |

# RATE DESIGN PROPOSAL - SECOND VERSION

*TURN/NRDC*

| | PG&E | PG&E | SCE | SCE | SDG&E | SDG&E |
|---|---|---|---|---|---|---|
| | E-TOU-C | E-TOU-C | TOU-D-4-9 | TOU-D-4-9 | TOU-DR1 | TOU-DR1 |
| | Non-CARE | CARE | Non-CARE | CARE | Non-CARE | CARE |
| Income Bracket (1000$): | | | | | | |
| 0-$150k | $41.42 | $5.00 | $41.25 | $5.00 | $41.29 | $5.00 |
| $150k+ | $62.14 | $5.00 | $61.87 | $5.00 | $61.93 | $5.00 |
| **Average (Non-CARE/CARE)** | $48.54 | $5.00 | $46.45 | $5.00 | $47.81 | $5.00 |
| **Average (Total)** | $36.51 | | $35.70 | | $37.16 | |
| **Change in energy charges** | (0.09) | (0.05) | (0.10) | (0.05) | (0.12) | (0.07) |
| **New Energy Charges ($/kWh)** | | | | | | |
| Summer - Peak | $0.393 | $0.254 | $0.480 | $0.322 | $0.732 | $0.479 |
| Summer - Part-Peak | - | - | $0.372 | $0.249 | $0.418 | $0.273 |
| Summer - Off-Peak | $0.330 | $0.212 | $0.265 | $0.177 | $0.253 | $0.164 |
| Winter - Peak | $0.296 | $0.191 | $0.412 | $0.276 | $0.535 | $0.350 |
| Winter - Part-Peak | - | - | $0.290 | $0.193 | $0.450 | $0.294 |
| Winter - Off-Peak | $0.279 | $0.179 | $0.254 | $0.170 | $0.426 | $0.278 |

# RATE DESIGN PROPOSAL - SECOND VERSION

*IOUS*

| | PG&E | PG&E | SCE | SCE | SDG&E | SDG&E |
|---|---|---|---|---|---|---|
| | E-TOU-C | E-TOU-C | TOU-D-4-9 | TOU-D-4-9 | TOU-DR1 | TOU-DR1 |
| | Non-CARE | CARE | Non-CARE | CARE | Non-CARE | CARE |
| Income Bracket (1000$): | | | | | | |
| 0-$25k | $50.92 | $15.00 | $51.00 | $15.00 | $73.31 | $24.00 |
| 25-$150k | $50.92 | $30.00 | $51.00 | $20.00 | $73.31 | $34.00 |
| $150k+ | $91.65 | $30.00 | $85.22 | $20.00 | $128.29 | $34.00 |
| **Average (Non-CARE/CARE)** | $64.91 | $22.67 | $59.63 | $17.90 | $90.70 | $29.40 |
| **Average (Total)** | $53.24 | | $48.81 | | $75.44 | |
| **Change in energy charges** | (0.14) | (0.09) | (0.14) | (0.08) | (0.25) | (0.15) |
| **New Energy Charges ($/kWh)** | | | | | | |
| Summer - Peak | $0.341 | $0.217 | $0.443 | $0.297 | $0.603 | $0.394 |
| Summer - Part-Peak | - | - | $0.335 | $0.223 | $0.289 | $0.188 |
| Summer - Off-Peak | $0.278 | $0.176 | $0.228 | $0.151 | $0.125 | $0.079 |
| Winter - Peak | $0.244 | $0.154 | $0.376 | $0.251 | $0.406 | $0.265 |
| Winter - Part-Peak | - | $ | $0.253 | $0.168 | $0.321 | $0.209 |
| Winter - Off-Peak | $0.227 | $0.143 | $0.218 | $0.144 | $0.297 | $0.193 |

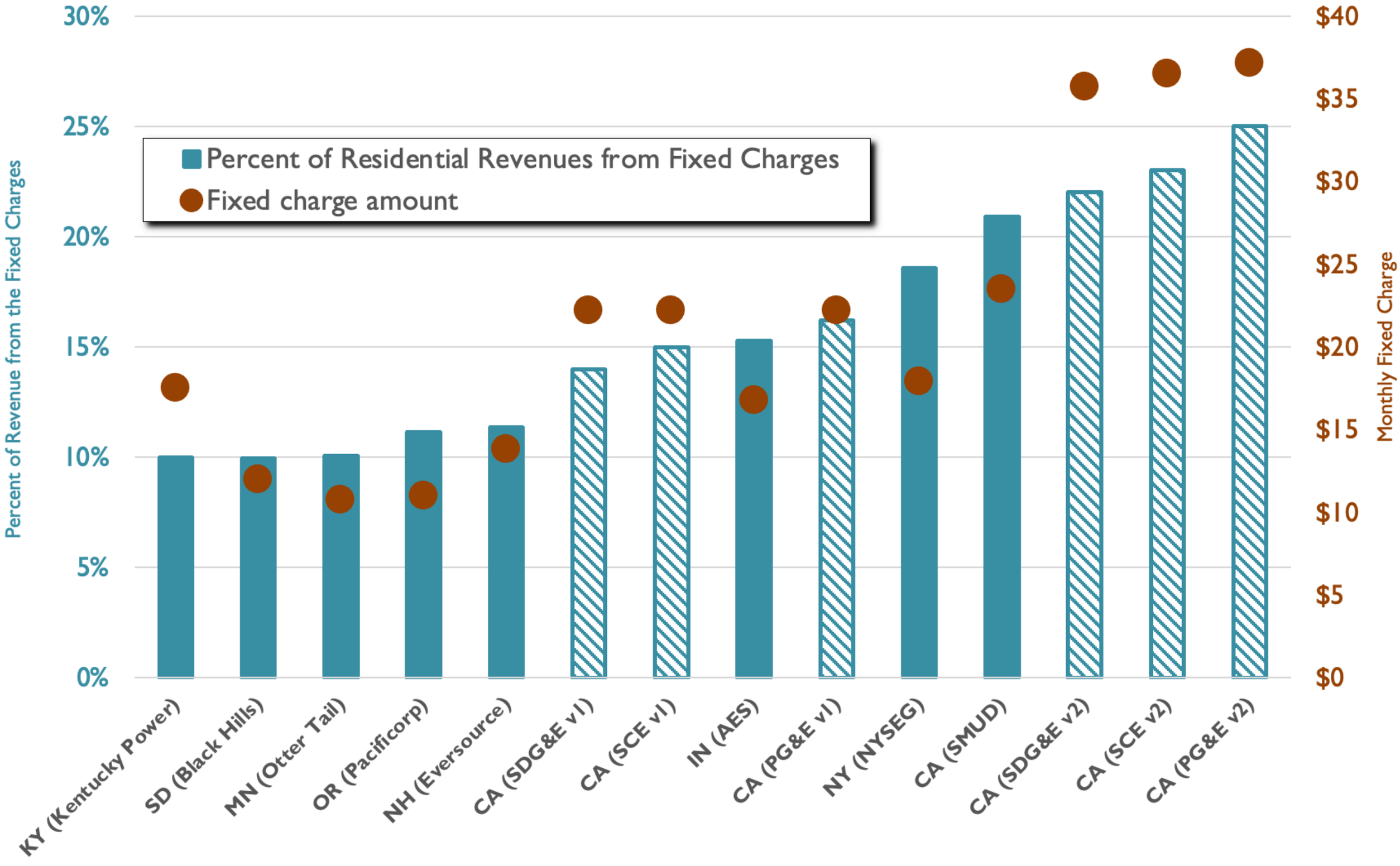
# RATE DESIGN PROPOSAL - FIRST VERSION

*IOUS AND TURN/NRDC*

| | PG&E | SCE | SDG&E |
|---|---|---|---|
| | **E-TOU-C** | **TOU-D-4-9** | **TOU-DR1** |
| **IOU proposals** | | | |
| CARE ≤ 100% FPL | $13.00 | $10.00 | $24.00 |
| CARE =100 - 200% FPL | $26.00 | $15.00 | $34.00 |
| FERA = 200 - 250% FPL | $26.00 | $15.00 | $34.00 |
| Non-CARE | $51.00 | $51.00 | $73.00 |
| **Average fixed charge** | $42.00 | $41.00 | $60.00 |
| **Change in usage charges ($/kWh)** | ($0.106) | ($0.092) | ($0.171) |
| | | | |
| **TURN/NRDC proposal** | | | |
| CARE = 100 - 200% FPL | $5.00 | $5.00 | $5.00 |
| FERA = 200 - 250% FPL | $5.00 | $5.00 | $5.00 |
| Non-CARE | $30.64 | $29.97 | $29.70 |
| **Average fixed charge** | $23.29 | $23.52 | $23.23 |
| **Change in usage charges ($/kWh)** | ($0.048) | ($0.046) | ($0.062) |

# Residential fixed charges

*TURN/NRDC first and second version proposals compared to other Utilities*



# SUMMARY OF BILL IMPACTS

*TURN/NRDC PROPOSALS*

**CARE/FERA customers (~30% of all residential)**

- First version = Average savings of $8-10/month.
- Second version = Average savings of $15-18/month.

**Middle income households**

- First version = bill impacts of $3-7/month
- Second version = *de minimus* average bill impacts

**High income households (>$150k)**

- First version = bill impacts of $3-7/month (no high income tier)
- Second version = Average bill increases by $24-26/month

# ELECTRIFICATION BILL IMPACTS

*TURN/NRDC PROPOSAL - SECOND VERSION*

**Electrification impacts for heat pumps (space heating + water heating)**

- CARE customers save $40-53/year (inland) or $63-84/year (coastal)
- Households >$150k save $72-99/year (inland) or $113-150/year (coastal)
- Assumes no significant increase in gas rates

**Electrification impacts for transportation**

- CARE customers save $168-216/year
- Households >$150k save $324-384/year
- Assumes $4/gallon gas and 35 mpg for internal combustion vehicles

# ELECTRIFICATION BILL IMPACTS

*TURN/NRDC PROPOSAL - FIRST VERSION*

| | | | Electric space heating, water heating, and electric vehicle | | |
|---|---|---|---|---|---|
| | | | Electric operating costs (existing rate) | Electric operating costs (IGFC v1) | Savings |
| **PG&E (E-ELEC)** | Coastal | CARE | $1,056 | $944 | ($112) |
| | | Non-CARE/FERA | $1,764 | $1,513 | ($251) |
| | Inland | CARE | $886 | $788 | ($98) |
| | | Non-CARE/FERA | $1,488 | $1,267 | ($222) |
| **SCE (TOU-D-PRIME)** | Coastal | CARE | $993 | $877 | ($116) |
| | | Non-CARE/FERA | $1,563 | $1,318 | ($245) |
| | Inland | CARE | $885 | $777 | ($109) |
| | | Non-CARE/FERA | $1,399 | $1,169 | ($230) |
| **SDG&E (TOU-ELEC)** | Coastal | CARE | $1,483 | $1,338 | ($144) |
| | | Non-CARE/FERA | $2,359 | $2,069 | ($291) |
| | Inland | CARE | $1,204 | $1,080 | ($124) |
| | | Non-CARE/FERA | $1,921 | $1,673 | ($248) |

# FIXED CHARGE INCOME VERIFICATION

*SECOND VERSION IGFC*

**Third Party Administration (TPA) of income-verification**

- Goal of using a non-profit entity or government agency selected by CPUC
- Use of third-party credit/income services (e.g. Equifax Work Number) with long-term goal of relying on Franchise Tax Board data

**CARE/FERA customer fixed charge tied to existing enrollment**

- No changes proposed to income verification for CARE/FERA
- Third-party administrator identifies households not currently on CARE/FERA that may be eligible, conducts outreach to these customers.

**Process for all other residential customers**

- Notified of likely eligibility for middle or high tier
- Customers eligible for middle-income tier can request a finding of eligibility based on third-party income service or through submission of household income data for verification.
- Customers that do not respond are defaulted into high fixed charge tier (≥$150k household income)
- Streamlining can reduce implementation costs

# FREQUENTLY ASKED QUESTIONS

**Will my bills go up or down under an income-based fixed charge?**

**Is the income-based fixed charge a new rate increase?**

**Will new fixed charges increase utility shareholder profits?**

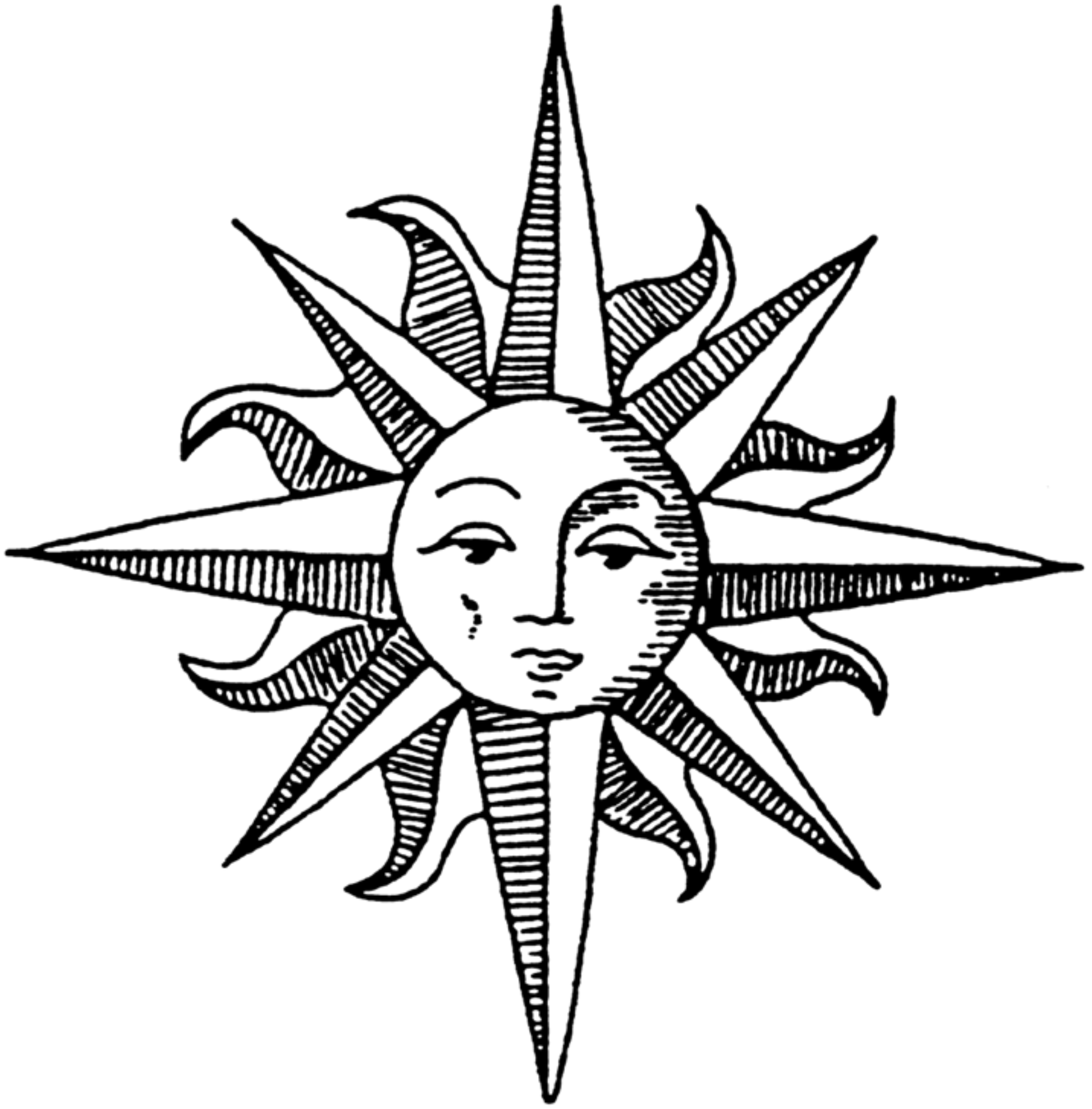
**Will new fixed charges make it easier for utilities to raise rates in the future?**

**Won't the reduction in usage-based rates undermine incentives for energy efficiency?**

**What is the impact of new fixed charges on legacy Net Energy Metering customers and newly enrolled solar customers under the recently adopted Net Billing Tariff?**

**Why is it fair to assign utility costs based on customer income? Has this ever been done before?**

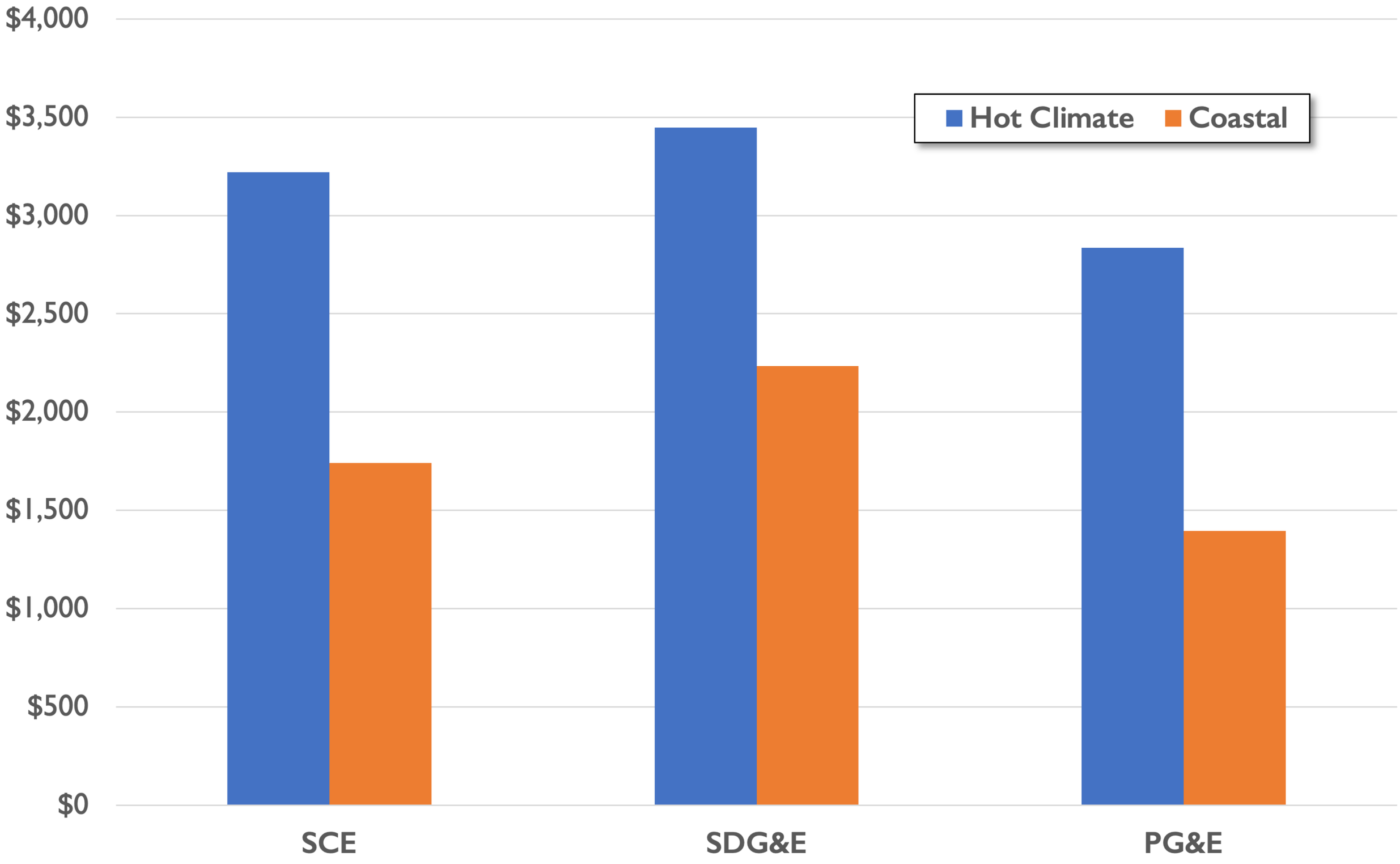
**Will the utility demand that I tell them my household income?**



# BACKUP SLIDES

# Average annual electricity bill for residential customer with income between $100-150k/year

*Comparison of hot and coastal zones for PG&E, SCE and SDG&E*



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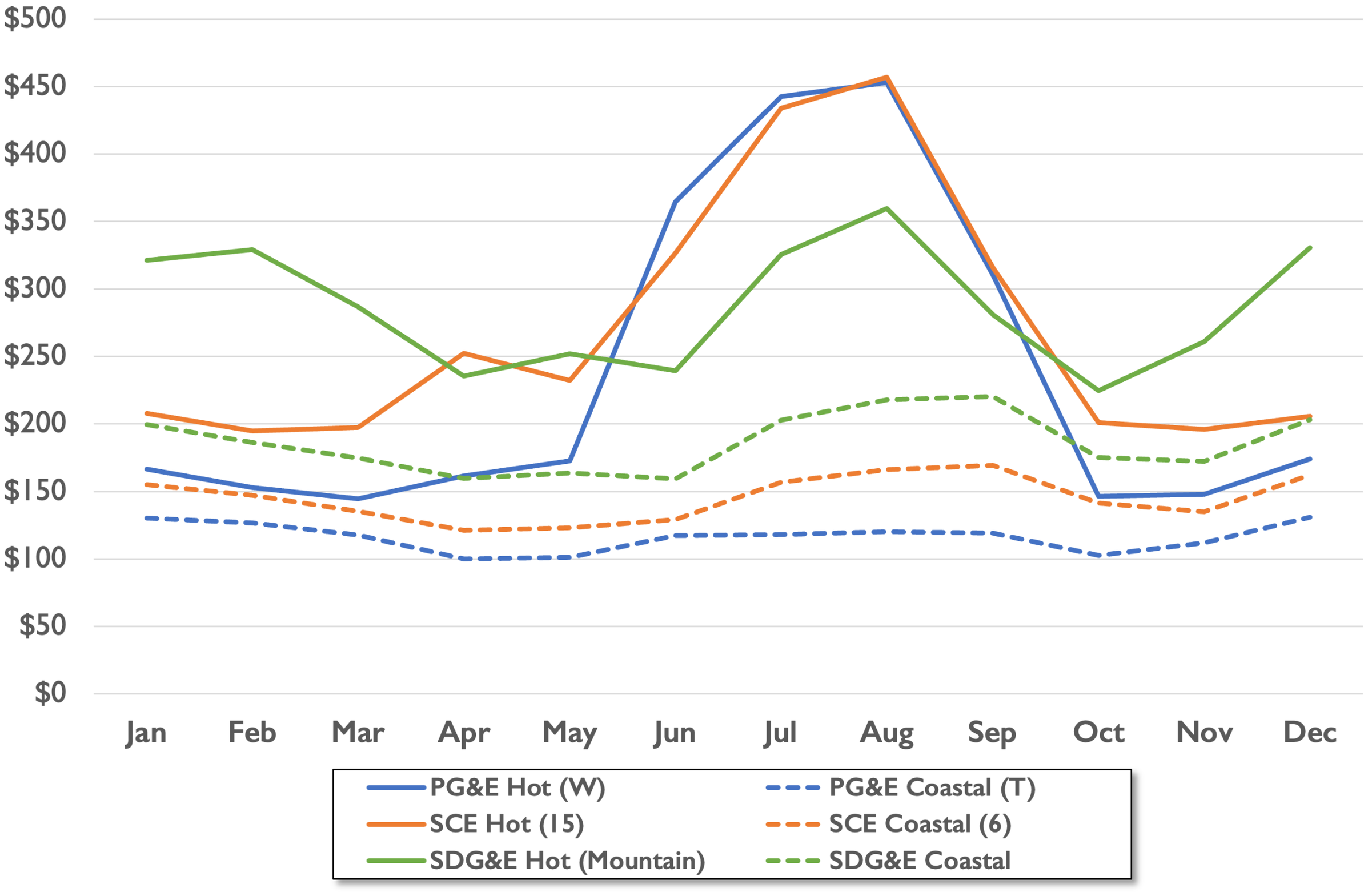
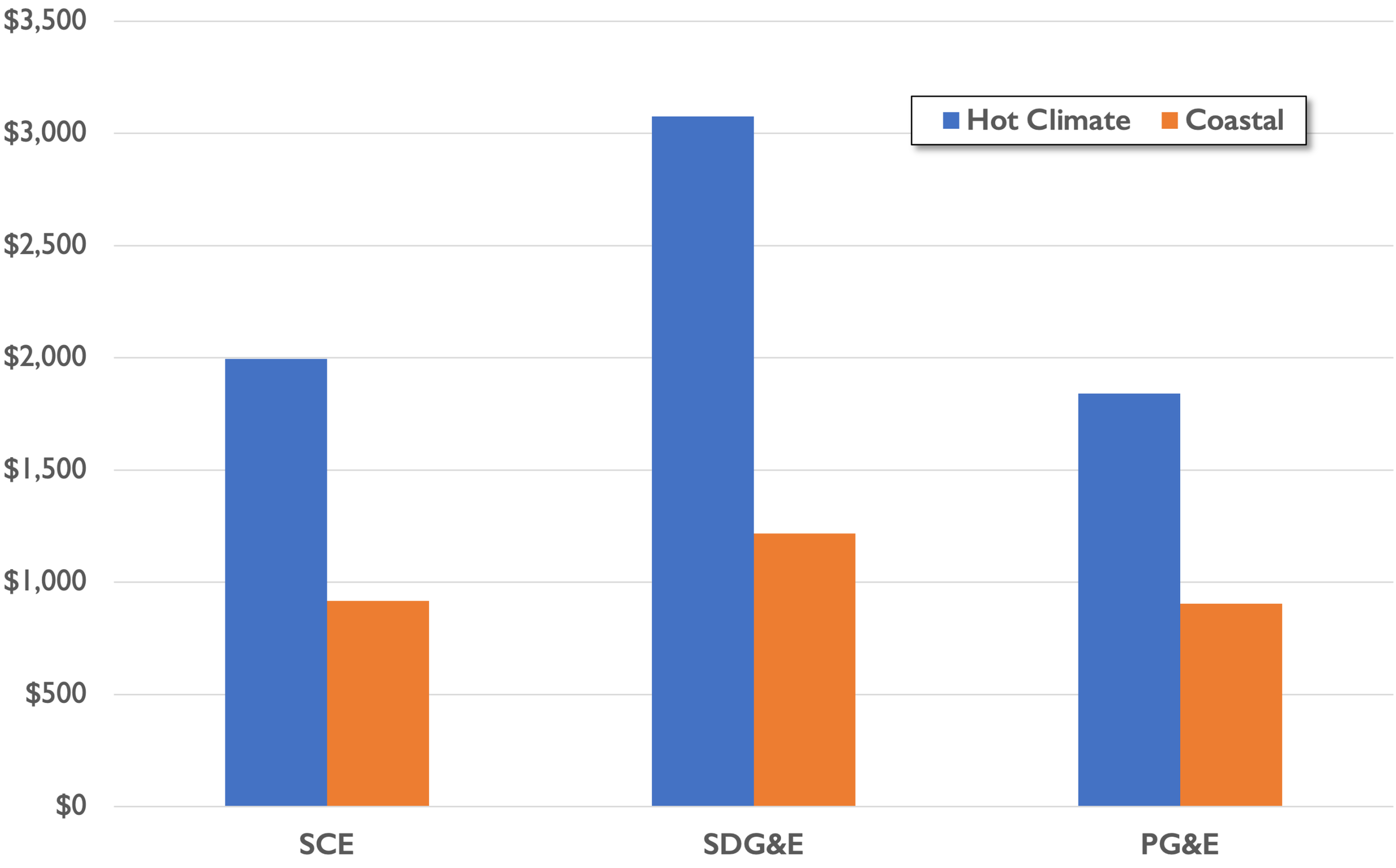
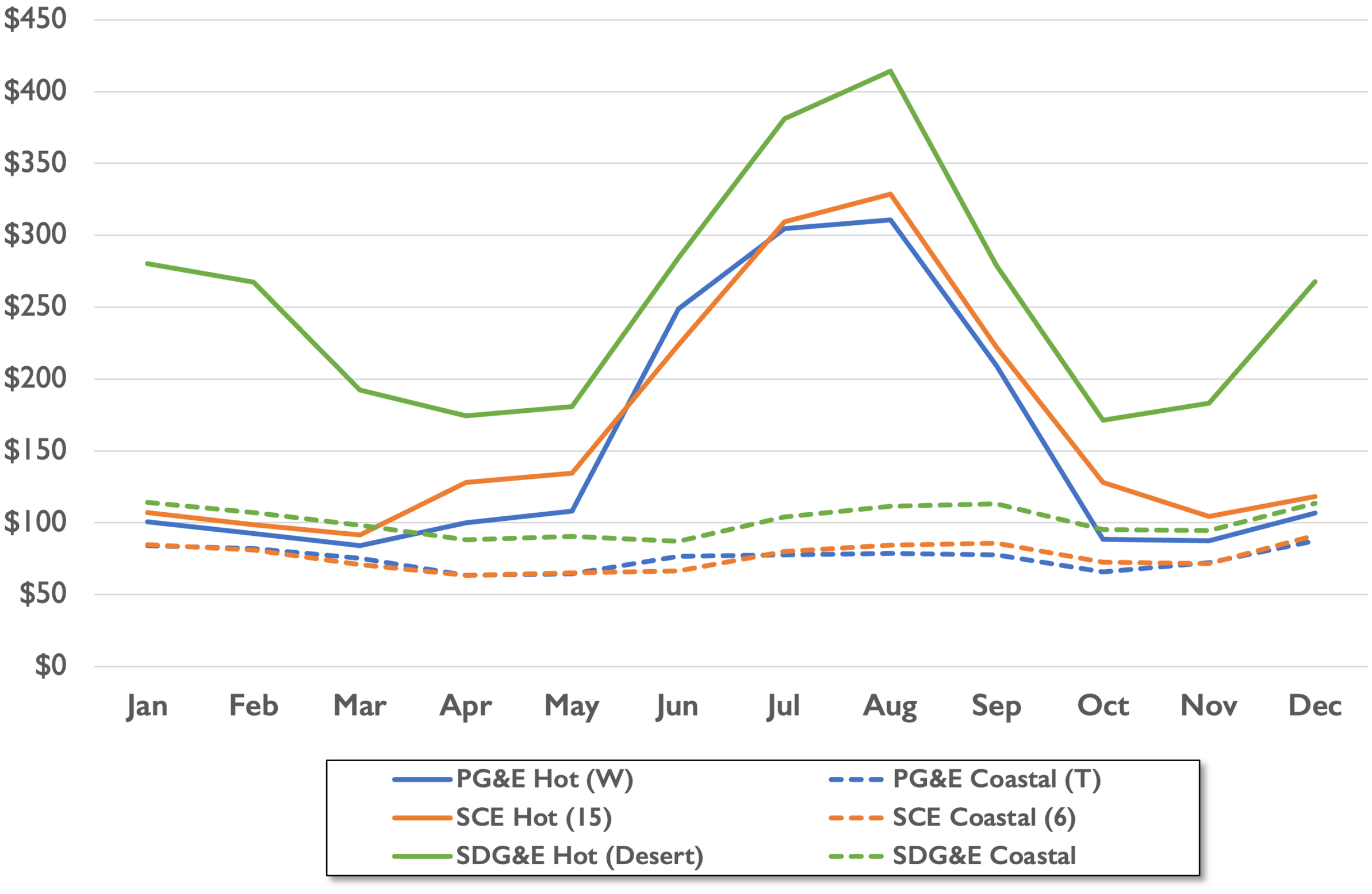
*Comparison of hot and coastal zones for PG&E, SCE and SDG&E*



# Average annual electricity bill for residential customer on CARE rates

*Comparison of hot and coastal zones for PG&E, SCE and SDG&E*



# Average monthly electricity bill for residential CARE customer

*Comparison of hot and coastal zones for PG&E, SCE and SDG&E*