



California Public
Utilities Commission



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R2507013

Climate Credit Workshop

Rulemaking to Improve the California Climate Credit (R.25-07-013)

August 11, 2026



Welcome & Introduction

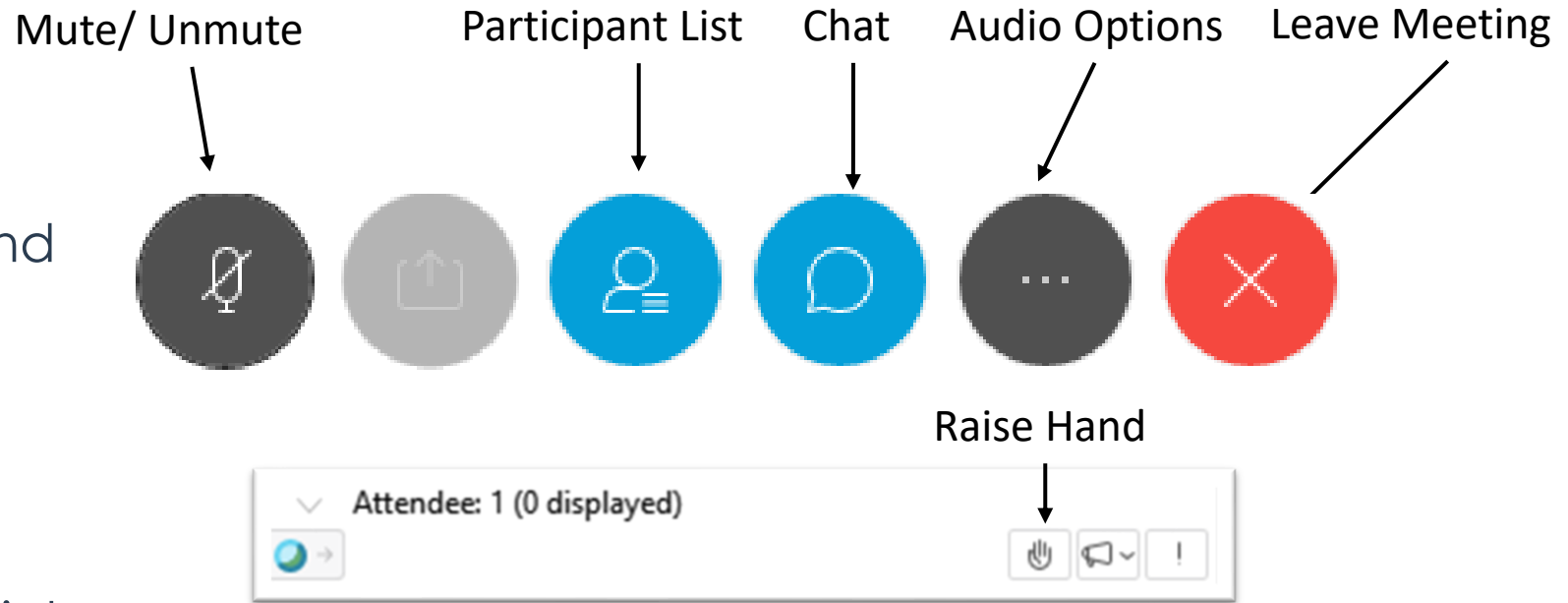
Restrooms & Safety Procedures



- Restrooms available across the hall. Go through the "Hearing Room" doors, turn right and then left.
- In event of evacuation, please exit the Courtyard, turn right (south on Van Ness Ave) past the War Memorial Herbst Theater to the Garden Plaza, next to the War Memorial Opera House.

Webex Logistics

- Today's presentations (.pdf) and agenda are available on the Webex link under “Event Material.” Type the password “CLIMATE” into the box and click “View Info”
- **Please note this meeting is not being recorded.**



- Please submit questions for speakers in the Chat Box or raise your hand to be unmuted by staff.
 - *3 to raise hand and *6 to unmute/mute over the phone
- Questions will be read aloud by staff (Reminder: Mute back!)

Today's Agenda

Time	Content	Presenters/Participants
Introductory Information		
9:30 AM	Welcome	Zara Jamshed, CPUC ED Staff
9:40 AM	Assigned Commissioner Opening Remarks	Justin Galle, Energy Advisor to President John Reynolds
Reviewing Program Status and Options		
9:45 AM	The Residential Climate Credit of Today	Adam Banasiak, CPUC ED Staff
10:05 AM	Assigned Commissioner Proposal Concepts	Justin Galle, Energy Advisor to President John Reynolds
10:25 AM	Utility Data Filings – Synthesis and Take-Aways	CA Energy Investor-Owned Utilities (IOUs)
11:25 AM	Q&A	
12:00 PM	Lunch Break	
Creating the Climate Credit of the Future		
1:00 PM	Insights from Outside Experts	Dr. Lane Smith, Stanford University Dr. Kyle Meng, UC Santa Barbara
1:45 PM	Party Proposals	CalCCA, CEJA, any Interested Parties
2:45 PM	Next Steps in the Proceeding: Formal Proposal Requirements	Maria Sotero, Administrative Law Judge
3:25 PM	Closing Remarks	

Community Agreements

- Workshop is structured to encourage robust dialogue and engage different perspectives
 - Keep comments friendly and respectful
 - Be present (as few additional screens as possible)
 - Assume best intentions but be mindful of impact
 - One person speaking at a time
 - Amplify underrepresented voices
 - Half thoughts are welcome
- Chat feature is only for Q&A or technical issues

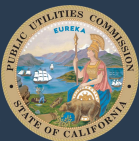
Opening Remarks

Justin Galle

Energy Advisor to President John Reynolds

Assigned Commissioner's Office

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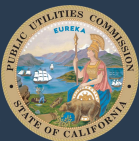
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Reviewing Program Status and Options

The Climate Credit of Today

Adam Banasiak
Climate & Equity Initiatives
Energy Division

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Goal: Describe the *Status Quo* Option

- Cap-and-Invest Program Benefits
 - Determining the Pie (How Much is Available)
 - Dividing the Pie (Who Gets It)
- Cap-and-Invest Program Costs
 - Determining the Costs
 - Dividing the Costs (Who Pays)



Cap-and-Invest Program Benefits

Genesis of the Climate Credit

- Fulfills the Public Utilities Code requirement that, with certain provisions:
 - 748.5. (a) (1) Except as provided in subdivisions (c), (d), and (e), the commission shall require revenues, including any accrued interest, received by an electrical corporation as a result of the direct allocation of greenhouse gas allowances to electric utilities pursuant to subdivision (b) of Section 95890 of Title 17 of the California Code of Regulations to be credited directly to the residential customers of the electrical corporation.
- Following D.12-12-033, Residential customers first received the Climate Credit in 2014

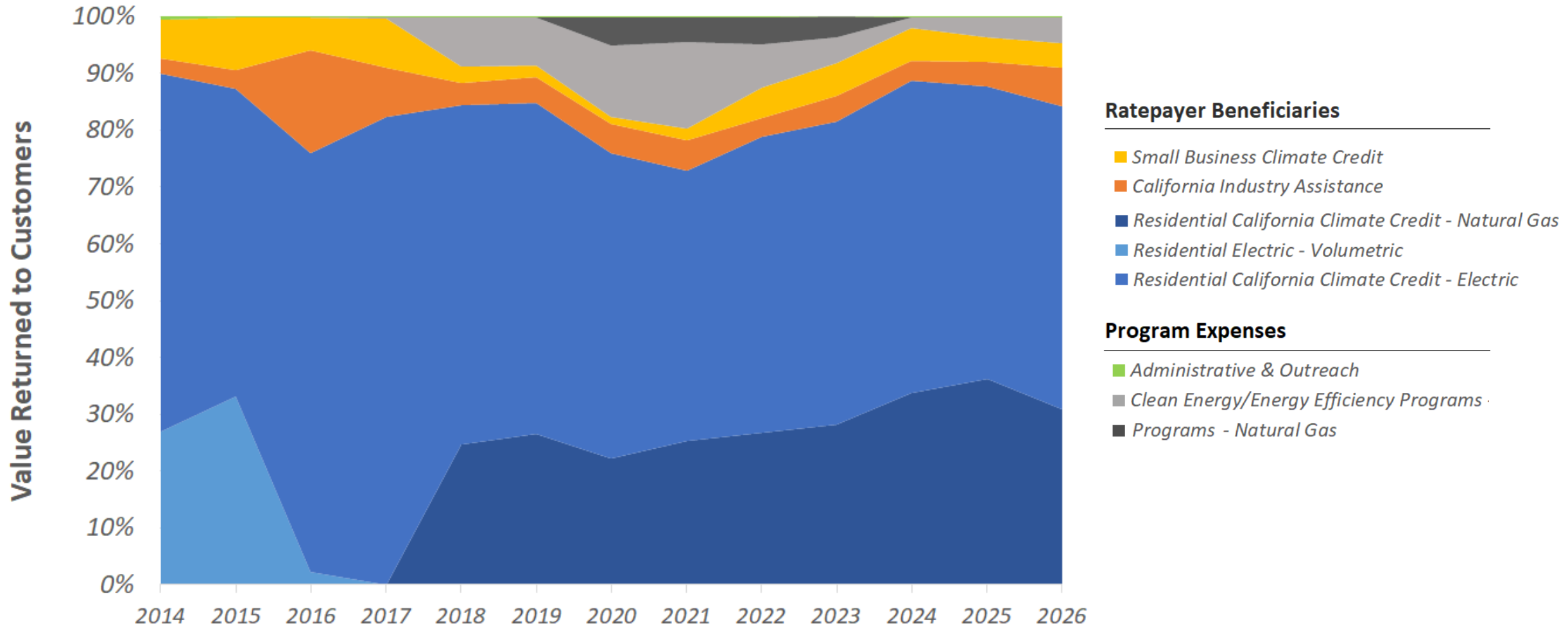
Determining the Pie (How Much is Available)

- Forecast New Proceeds
 - Key contributor to the Climate Credit amount
 - Allowances x Forecast Price
 - Number of Allowances is determined by California Air Resources Board (CARB)
 - Forecast Price depends on market
- Adjust for Prior Year Forecasting Error
 - Can be an adjustment up or down
 - Other methods may introduce other types of forecasting error
- Interest
 - Can be an adjustment up or down

Dividing the Pie – Who Gets What

- Existing method works like a waterfall
 - Proceeds flow down through various buckets
 - Everything left at the end is evenly divided across the total number of climate credits
- What are the Buckets
 - Admin & Outreach Costs
 - Programs
 - CA Industry Assistance – (Calculated by Formula)
 - **Everything left is the Climate Credit**

What % of Proceeds Went to What Group?



DATA (normalized to 100% to remove year-to-year variability):

<https://www.cpuc.ca.gov/industries-and-topics/natural-gas/greenhouse-gas-cap-and-trade-program>

Takeaways:

- Residential Customers have received the majority (~85%) share of the Cap-and-Invest value from IOUs every year since 2014
- The Climate Credit can't grow very much by redirecting value from other pools:
 - CA Industry Assistance or Small Business Climate Credit (~11%)
 - Several percent will automatically shift from CA Industry as CARB resumes responsibility for crediting large (covered) industrial facilities in 2027
 - 5% CA Transmission Accelerator set by Assembly Bill (AB) 1270 (Irwin, 2025)
 - Admin & Outreach, which is de minimis

Cap-and-Invest Program Costs

Determining the Costs

- Like other generation costs, Cap-and-Invest costs are volumetric (per kWh) in rates
- Cap-and-Invest Program costs are bundled with other generation costs
 - Direct costs for utility-owned generation
 - Indirect costs for market and contract purchases
- For customers, the more energy you are using the more Cap-and-Invest costs you are paying

Total Systems Costs $\approx$ Total System Benefits

- Cost neutral at the system level
- CARB allocates allowances to IOUs based on a forecast of their total system Cap-and-Invest Compliance burden
 - Determined in the CARB Rulemaking
 - Based on Integrated Energy Policy Report (IEPR) and other documentation
 - All generation – not just residential load

Costs & Benefits: Consider Both Together

- Customers see the Costs and Benefits of the Cap-and-Invest Program differently
 - All customers are paying Cap-and-Invest costs in rates volumetrically
 - Customers are getting the benefits as a line-item credit
- Moving the Cap-and-Invest benefits across groups of customers creates winners and losers
 - Some customers end up with more costs than benefits
 - Some customers end up with more benefits than costs
- Under the current flat-credit system, customers with higher usage pay more in costs than they receive in benefits



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Adam.Banasiak@cpuc.ca.gov

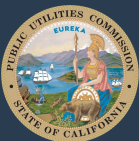
ADK@cpuc.ca.gov

Assigned Commissioner Proposal Concepts

Justin Galle

Energy Advisor to President John Reynolds

Assigned Commissioner's Office



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Recent Procedural Updates

- CPUC Rulemaking opened in July, 2025
- AB 1207 adopted in September, 2025
- CPUC Decision ordering improvements adopted in April, 2026
 - Shifted distribution of large IOU res electric Climate Credits to Sep and Aug
 - Ordered outreach updates
 - Directed 5% of GHG allowance revenues to CA Transmission Fund
- CPUC Guidance Ruling Issued June 29, 2026
 - Comments filed July 24, 2026

Assigned Commissioner's Priorities

- Affordability
 - Climate Credits should be distributed to maximize electric rate affordability
- Electrification
 - Climate Credit design should align with overall State electrification policies
- Fairness
 - All residential customers should continue to receive the credit
 - Credit values should relate to GHG costs as reflected in customer electricity bills
- Simplicity
 - Changes should not be overly complicated to implement
 - Customers should understand the value and timing of their climate credit

Assigned Commissioner's Proposal Concepts

- Baseline Usage Tier Approach

- Customers that use less than their baseline amount of usage on average in the prior period would receive a lower Climate Credit
- Customers that used more than the baseline amount of usage on average would receive a higher Climate Credit
- CARE customers that used more than the baseline amount would receive a further additional credit

HYPOTHETICAL EXAMPLE: MODULAR CLIMATE CREDIT BASED ON BASELINE ALLOWANCE AMOUNTS	
Baseline level	
Below baseline	1x
Above baseline	2x
Above baseline CARE	3x

Assigned Commissioner's Proposal Concepts

- Climate Zone Tier Approach
 - All residential customers within a climate zone would receive the same value, while hotter zones would receive higher values
 - The average usage of each climate zone is estimated in the General Rate Cases; the value each zone receives would be determined by their proportional bulk usage

HYPOTHETICAL EXAMPLE: MODULAR CLIMATE CREDIT APPLIED TO DIFFERENT CUSTOMER CLASSES			
Climate Zone	Customers with very low bills (i.e. lower than customers with usage at the baseline allowance level)	All other non-CARE residential customers	CARE customers
Cooler zone ²	1x	1x	2x
Median zone	1x	2x	3x
Hotter zone	1x	3x	4x

Assigned Commissioner's Proposal Concepts

- Requested additional comment on a purely volumetric approach, with a Climate Credit value derived directly from per kilowatt-hour usage

Utility Data Filings

Synthesis and Take-Aways

GHG OIR Workshop

Data Request Observations

Aug 11, 2026





Observations on Volumetric Climate Credit Design

- **Distributional Impacts** – The data request only looked at average bill impacts. However, many customers would see lower climate credit amounts (higher bills) even within climate zones that benefit overall. The data shows that 42% of CARE customers are below median residential usage in August and September (Section A (c)) implying they may be worse off under a volumetric design as compared to the status quo.
- **Conflicting Policy Signals** – An on-peak volumetric or usage-based credit may send a signal to shift load *into* the on-peak period, including on hot summer days where reliability may be a concern. The targeted on-peak volumetric credit is larger than PG&E's default rate (E-TOU-C) summer peak-to-off-peak price differential (\$0.207/kWh v. \$0.123/kWh) (Section E (d)).
- **Bill Stability** – While the volumetric credit increases climate credit volatility from month-to-month, it successfully lowers total bill volatility in these months. Average bills for most customers may be \$1-2 dollars more stable with some up to \$6 more stable. (Section E (c)).



Applicability to Commissioner Concepts

- **Distributional Impacts** – Similar to the purely volumetric concept, there are potential adverse impacts even in climate zones that receive a higher credit. 50% of Non-CARE customers and 45% of CARE customers are below baseline (Section A (b)) in August and September. These customers may see lower credits compared with the status quo.
- **Conflicting Policy Signals** – The two Commissioner-proposed concepts that provide a higher credit to above-baseline usage may distort the tiered-rate price signal by effectively causing above-baseline energy to be cheaper than baseline usage.
- **Bill Stability** – Under a baseline concept, the total credit may be harder for customers to budget for and predict.
 - A customer using 1 kWh above the baseline may receive double or triple the credit.
 - A customer may receive a different sized credit in August and September depending on usage, leading to confusion.
 - Data indicates notable month-to-month shifts in baseline status, with 115k non-CARE customers (5.7% of total) and 46k CARE customers (7.7% of total) moving between baseline categories from August to September.
 - These figures reflect net customer transitions between baseline categories. The absolute number of customers experiencing eligibility tier or credit amount will be higher.
- **Missing Data** – Data requested cannot be used to craft the credit under Concept 2 as the combination of above/below baseline and CARE demographics are different by climate zone.

SCE Section 5 Data Filing

Climate Credit Rulemaking (R.25-07-013)

CPUC Workshop

August 11, 2026

Data Implications for Status Quo & Concept 2

Status Quo would distribute credit based on season; Concept 2 based on climate zone.

Seasonal Patterns

- During August and September, a substantial portion (41% to 52%) of residential customers on tariffs with baseline allowances have usage that exceed baseline quantities.
- Residential customers on average experience higher bills in Summer (June to September) compared to Winter (January to May and October to December).

Climate Zone Patterns

- Annually, households in HCZ¹ account for ~35% of residential accounts and 39% of billed kWh in 2025, indicating higher average usage than their share of accounts.²
- 42% of CARE and 40% of FERA³ are in HCZs.
- Usage and monthly bills are strongly seasonal, especially in HCZ—e.g., customers in HCZ show much higher summer usage and bills.
- 58% of NEM/NBT⁴ customers are in HCZ, reflecting higher solar participation in warmer climates.
 - 72% of CARE on NEM/NBT reside in HCZ.

¹ Hot Climate Zones (HCZ)

² SCE offers more summer baseline usage at the lowest tiered rate in hotter climate zones, reflecting higher expected energy needs for cooling. Seasonal usage in summer months (June to September) is generally higher than in winter months with more pronounced seasonality in hot climate zones.

³ California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) customers

⁴ Net Energy Metering/Net Billing Tariff (NEM/NBT)

Data Implications for Concept 1 & Volumetric

Concept 1 would distribute credit based on baseline usage in prior year; Volumetric based on usage.

Usage Patterns

- CARE and non-CARE usage are consistent across usage quartiles.
 - Higher concentration of NEM/NBT (37%) at the lowest quartile than in other quartiles.
- Calculating baseline usage introduces several challenges:
 - TOU-D-PRIME does not have a baseline usage.
 - Some residential customers are provided additional baseline usage.¹
 - Numerous exception cases make it difficult to quantify historical baseline usage.²
- Use of the prior years' data does not account for year-to-year variation in weather and usage patterns.

Volumetric Estimations

- Under the assumptions used to estimate the volumetric credit, the August and September all-usage volumetric credit would be ~5.35 cents/kWh.
- Implementing equal percent basis volumetric climate credit rates will be complicated as SCE will need to implement tariff-specific climate credits and potentially design community-choice aggregator (CCA)-specific climate credit rates.

¹ Customers who are all electric or have heat pump water heaters get additional baseline allowance on TOU-D-4-9 and TOU-D-5-8, customers with medical devices get additional baseline on TOU-D-4-9 and TOU-D-5-8 and a % discount on TOU-D-PRIME.

² For example, recent move-ins, solar interconnections, rate changes, and program enrollments can all result in baseline usage being unavailable, or non-representative.

Cost and Implementation Considerations for Climate Credit Concepts

- More customer confusion with more complex Climate Credit changes.
- Could create unintended consequences (e.g., more usage to obtain higher credit amount).
- All Climate Credit design changes involve tradeoffs between simplicity, equity and available Climate Credit.
 - Volumetric approach should preserve price signals across the day to reflect that serving customers costs more during high-cost periods than low-cost ones. Flattening those differences could weaken the signal that encourages conservation during high-cost periods.
- Concepts using existing IOU billing data and functionality are generally preferred; adding complexity and new data and functionality will increase costs and reduce available Climate Credit.

Concept	ESTIMATED COST (System, Marketing & Outreach, Training)	ESTIMATED DURATION* (Minimum)	DIFFICULTY TO IMPLEMENT (Easy/Medium/Hard)
#1: Baseline Usage Tier	\$7.95M	18 months	Medium
#2: Climate Zone Tier	\$13.95M	24 months	Hard
Purely Volumetric	\$10.45M	18 months	Medium
*Note: Estimated duration begins when the system requirements are finalized and baselined.			



CA Climate Credit OIR (CCC OIR) Workshop



August 2026

SDG&E | Key Takeaways & Considerations¹

R.25-07-013 ALJ/MS9/vj4

(Attachment A)

Key Takeaways

A	Climate Zone (CZ) Insights	Hotter CZ	Cooler CZ
	Customer Composition ²	1%	99%
	Solar Penetration	36%	24%
	Baseline Allowance ³	14.0 kWh/day (46% higher)	9.6 kWh/day

B Directional Volumetric Insights⁴

Medians (kWh/mo.)		Implied Consumption	
All Residential	326	Implied Vol. Elec. CCC	\$0.13/kWh
Non-CARE	318	2026 SDG&E Elec. CCC	\$49.36
CARE	348	Implied Consumption	375 kWh

C	General Insights	
	Above Baseline (Aug. / Sep. 2025)	60% of Tiered Residential Customers
	Highest Electric Month (2025)	September (consumption + bills)

Key Considerations

- Residential customers in hotter climate zones represent a small portion of SDG&E's customers
- Hotter CZ customers have slightly higher solar penetration relative to cooler climate zones
- Currently, hotter CZ customers on tiered rates receive ~50% higher baseline allowance allocation relative to cooler climate zones
- Median consumption falling below the consumption needed to achieve the 2026 flat electric CCC implies that a volumetric approach could create a dynamic where the majority of res. customers receive a relatively lower CCC (non-benefitters)
- Despite inclining blocks, the majority of residential tiered customers are consuming electricity in excess of their baseline allowance allocation; September is the highest month for res. electric consumption and bills across all CZs and Non-CARE/CARE

1) Information and insights provided generally reflect SDG&E's submitted Data Filing (submitted July 17, 2026).

2) Per D.17-09-036, SDG&E's "hot climate zones" refer to Mountain and Desert Baseline Territories. Cooler climate zones = Coastal and Inland Baseline Territories.

3) Reflects weighted average "Basic" summer baselines. Weighting was derived using tiered residential customer accounts, which reflected the following splits:

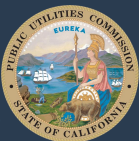
Cooler CZ = 58% Coastal and 42% inland, Hotter CZ = 83% Mountain and 17% Desert.

4) Utilizes 2026 actual electric CCC + estimated volumetric electric CCC in SDG&E's submitted Data Filing (submitted July 17, 2026), Response E.a (All Usage); Medians utilized a more granular version of the data provided in response A.c.

Energy Division Insights into IOU Data

Bridget Sieren-Smith
Rate Analysis
Energy Division

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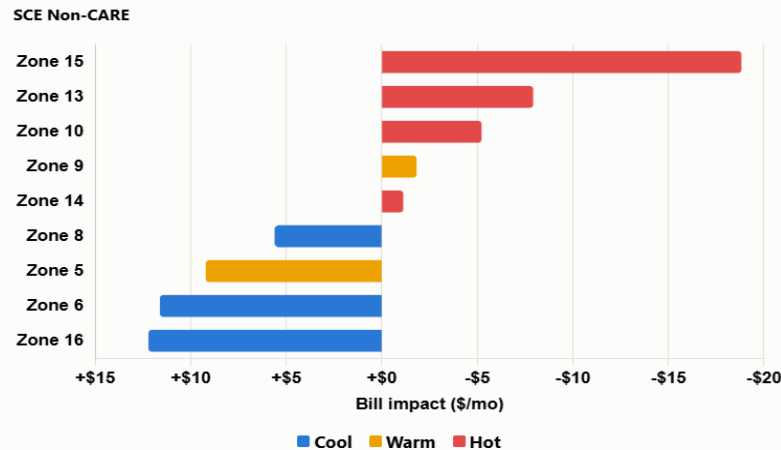
Guidance Ruling Item #5 Volumetric Credit - Data Evaluation

- Item 5 of the Guidance Ruling obtained three essential data points:
 - a) volumetric rate reduction
 - b) residential class-level credit per customer
 - c) bill impacts at climate zone level
- There are **two methods**—typically used in cost allocation proceedings—to calculate the volumetric credit:
 - Equal cents per kilowatt-hour (ECPK)
 - Equal percent
- ECPK data, but not equal percent data, was submitted in Item 5; however, there was no indication of the rate basis of the data used to produce the bill impacts e.g. based on a TOU, non-TOU, or blended rate
- Post Item 5 review, Energy Division sent a data request to the IOUs requesting that the ECPK bill impacts based on all usage without distinction to time of usage be **updated** and resubmitted using the utility's most subscribed TOU and non-TOU rate (one for each)
- Energy Division also requested that the IOUs provide **new** bill impact data based on the equal percent calculation method

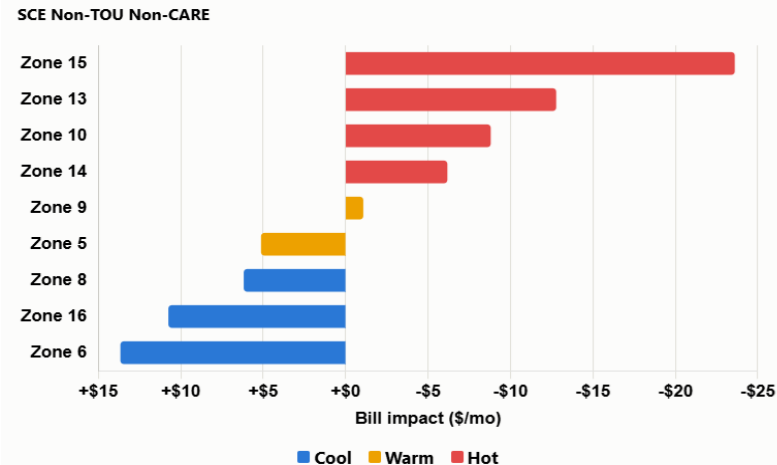
Example: SCE – Comparison of Guidance Ruling Data to Updated Energy Division Data – ECPK

*****Non-CARE*****

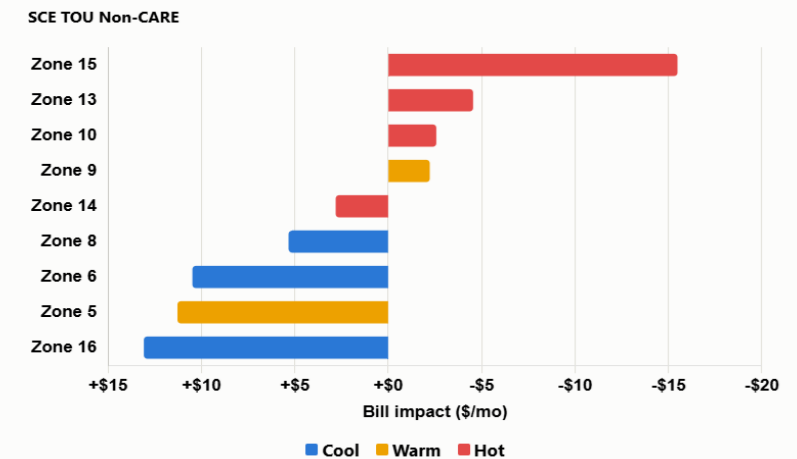
Guidance Ruling Data – no rate specified



Updated Data – Non-TOU rate



Updated Data – TOU rate

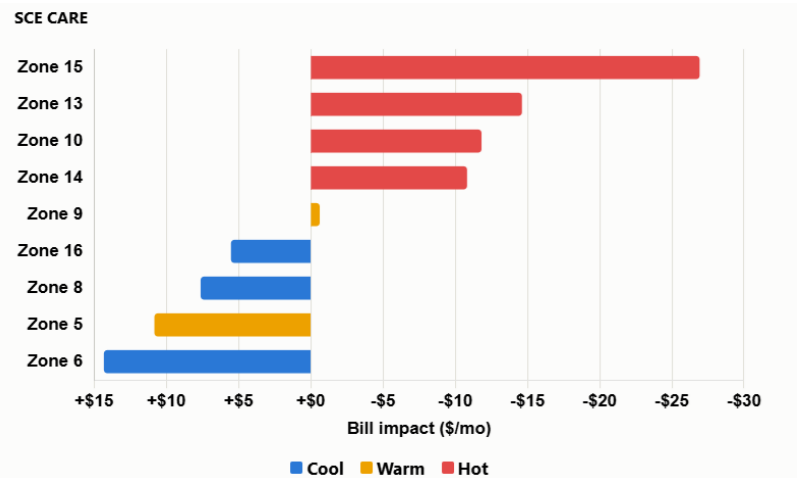


- ❖ Climate zones shown in descending order for bill savings (highest bill savings on top); in the updated data, top three climate zones remain the same with the rest of the climate zones showing re-ordering.
- ❖ Zone 14 was showing bill savings in the Guidance Ruling data and now shows a bill increase for TOU rates.
- ❖ The largest \$ difference when comparing the updated results with the Guidance Ruling blended data is Zone 14, where non-TOU customers show bill savings of about \$6 compared to bill savings of about \$1 shown in the blended data — a difference of about \$5.

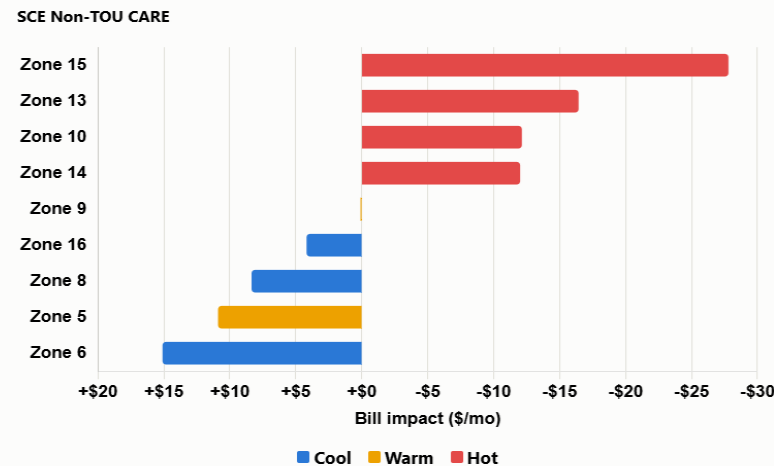
Example: SCE – Comparison of Guidance Ruling Data to Updated Energy Division Data – ECPK

*****CARE*****

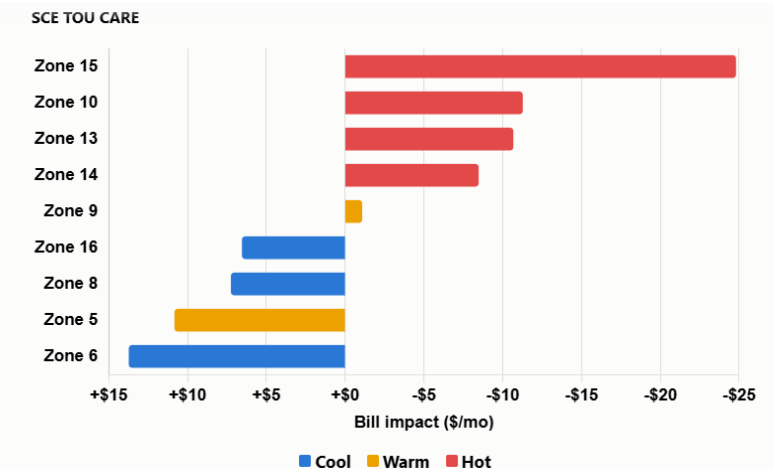
Guidance Ruling Data – no rate specified



Updated Data – Non-TOU rate



Updated Data – TOU rate



- ❖ Climate zones shown in descending order for bill savings (highest bill savings on top); in the updated data, only Zones 10 and 13 change order.
- ❖ The largest \$ difference when comparing the updated results with the Guidance Ruling blended data is Zone 13, where TOU customers show bill savings of about \$11 compared to bill savings of about \$15 shown in the blended data—a difference of about \$4.

Updated and New Bill Impact Data

R.25-07-013 ALJ/MS9/vj4

(Attachment A)

Bill impact data reflects the effect of:

Status-Quo Flat Credit (\$/customer)



Volumetric Credit (\$/kWh based on current usage)

- ❖ Bill impacts are shown based on an actual rate, as an individual customer experiences either a non-TOU or a TOU rate: PG&E E-1 and E-TOU-C, SCE D and TOU 4 – 9, SDG&E DR and TOU-DR1.
- ❖ Bill impact usage (kWh) is based on: PG&E August (data available for September as well); SCE & SDG&E average usage for August and September.
- ❖ Climate Zones are grouped using designations developed as part of the Residential Rate Reform Rulemaking: cool, warm, hot.
- ❖ Each scenario that follows represents the bill impact **a typical customer could experience, based on their CARE status, rate type, and climate zone.**
- ❖ Moving from a flat per-customer credit to a per-kWh credit (ECPK) or equal percent credit redistributes the bill reduction benefit toward higher-usage customers and away from lower-usage customers, as the credit now scales with how much electricity is used; **as a rule of thumb, higher-usage customers benefit more under a ECPK or equal percent credit and lower-usage customers benefit less.**

* Bill impacts are modeled as if all customers were bundled—CCA customer results may vary.

Updated and New Bill Impact Data

The ratio of the flat credit to the ECPK credit shows the approximate breakeven usage above which customers see a bill reduction and below which they see a bill increase:

$$\text{kWh}_{\text{breakeven}} = \frac{\text{Flat credit}}{\text{ECPK volumetric credit}}$$

Breakeven Usage During Each of the Credit Months (August & September)			
Utility	Flat Credit	ECPK Credit/kWh	Breakeven kWh/mo.
PG&E	(\$36.18)	(\$0.08709)	415
SCE	(\$36.00)	(\$0.05355)	672
SDG&E	(\$49.36)	(\$0.11531)*	428

*Updated ECPK credit to reflect correction in usage data to reflect ERRA forecasted sales.

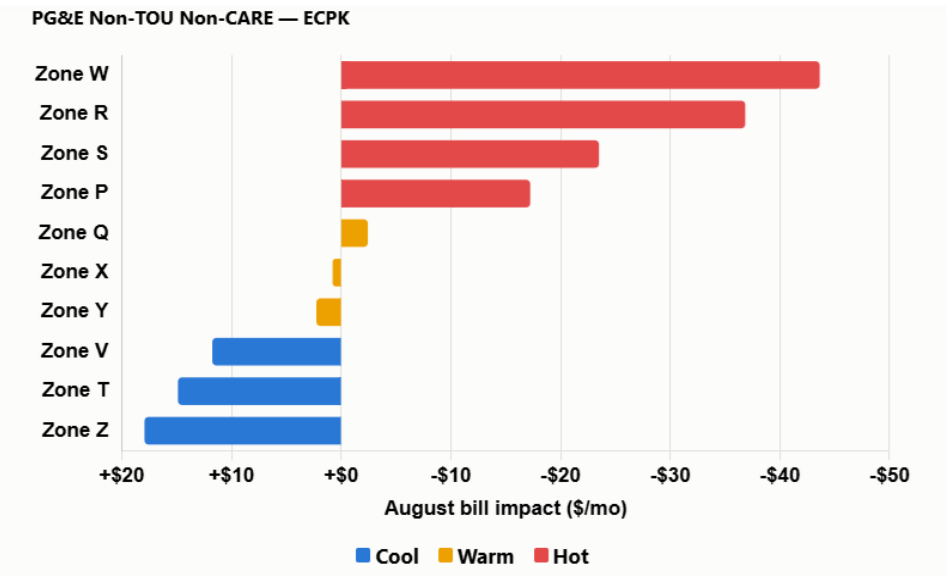
- ❖ Breakeven usage levels are approximate; whether a customer falls above or below the threshold depends on their total usage, which will typically differ between TOU and non-TOU customer groups.
- ❖ A comparable breakeven usage level cannot be calculated for the equal percent; because the equal percent credit is calculated as a percentage of the customer's bill rather than a fixed amount per kWh, the credit amount varies with tier and time-of-use usage mix, so no single usage threshold applies across customers.

Updated and New Data Bill Impact Graphs

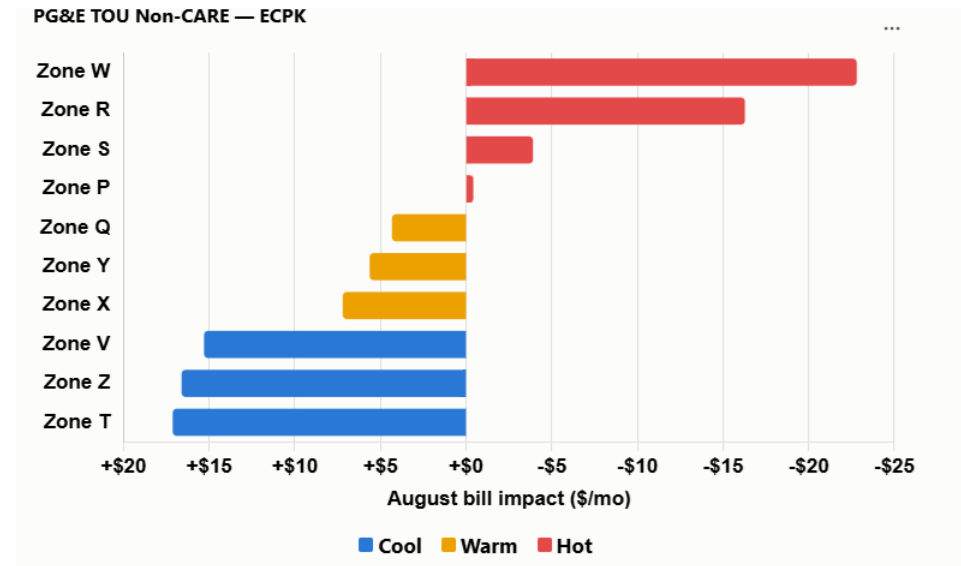
PG&E – Updated Energy Division Data – ECPK

*****Non-CARE*****

Updated Data – Non-TOU rate



Updated Data – TOU rate

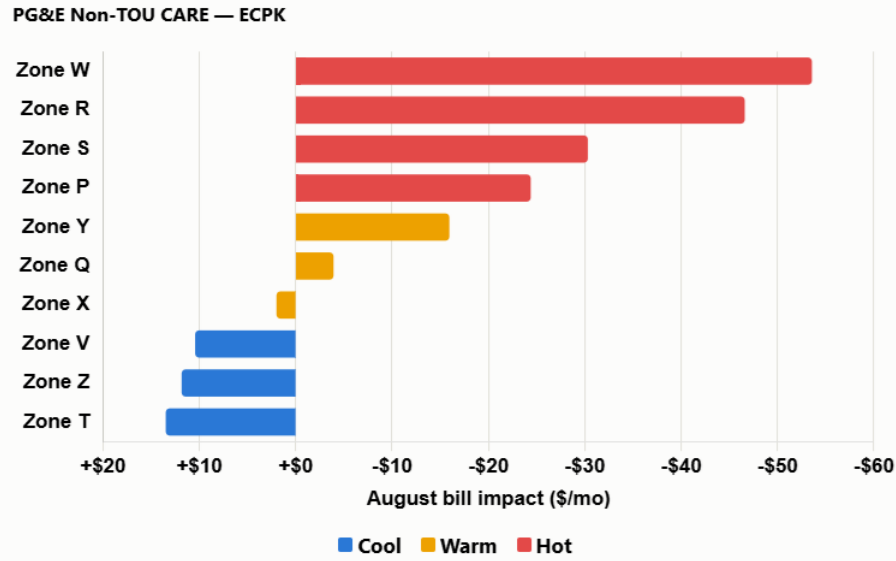


- ❖ Hot climate zones show the largest bill savings and cool zones show the largest bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone W — about \$44 per month for non-TOU customers and about \$23 for TOU customers.
- ❖ The highest bill increase occurs in Zone Z for non-TOU customers (about \$18 per month) and in Zone T for TOU customers (about \$17).

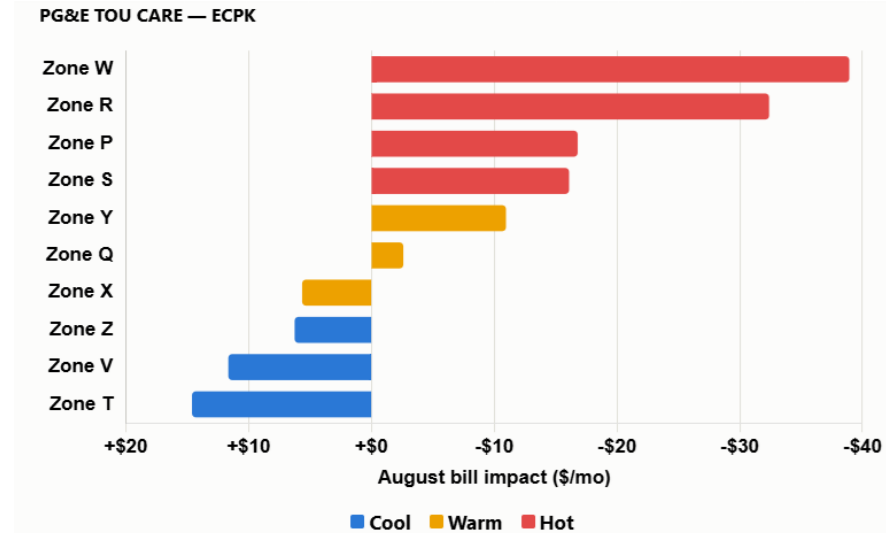
PG&E – Updated Energy Division Data – ECPK

*****CARE*****

Updated Data – Non-TOU rate



Updated Data – TOU rate

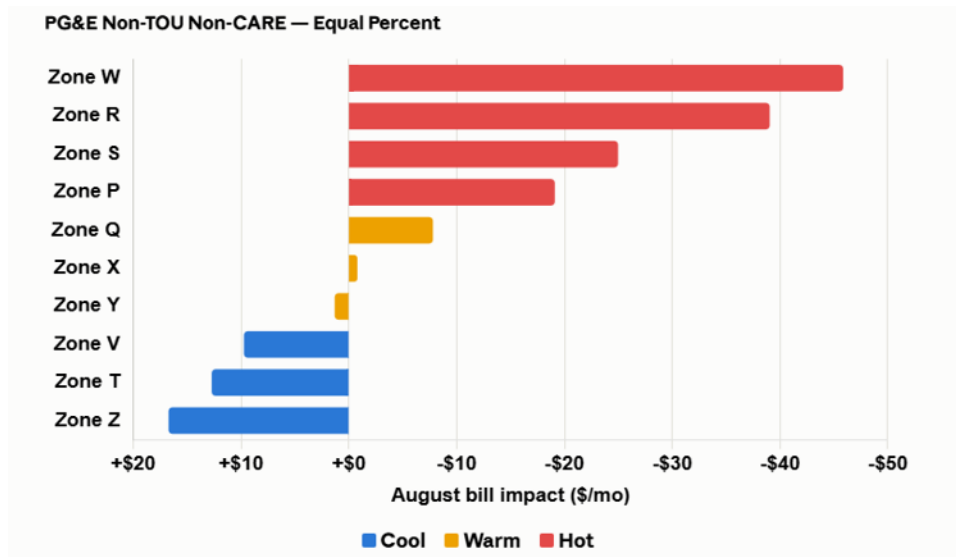


- ❖ Hot climate zones show the largest bill savings and cool zones show the largest bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone W — about \$54 per month for non-TOU customers and about \$39 for TOU customers.
- ❖ The highest bill increase occurs in Zone T — about \$13 per month for non-TOU customers and about \$15 for TOU customers.

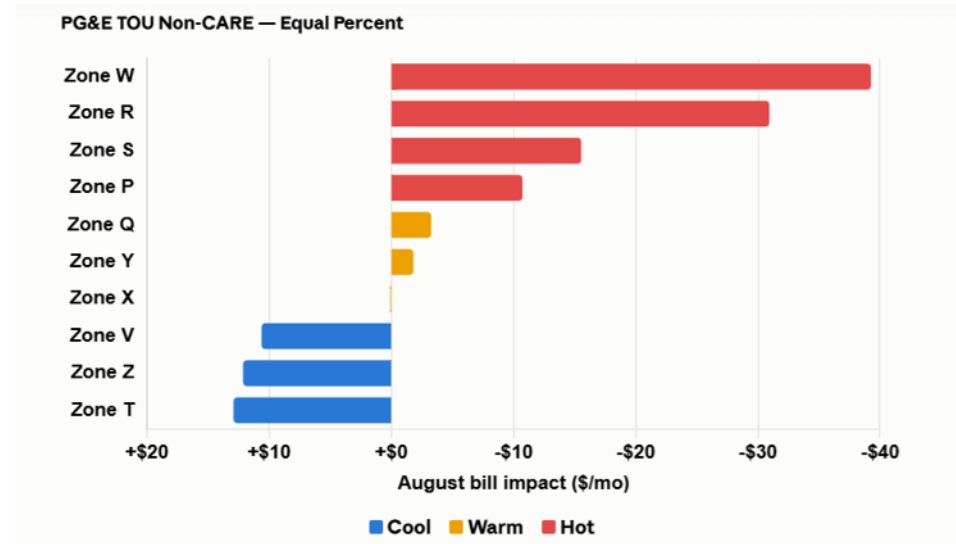
PG&E – New Energy Division Data – Equal Percent

*****Non-CARE*****

New Data – Non-TOU rate



New Data – TOU rate



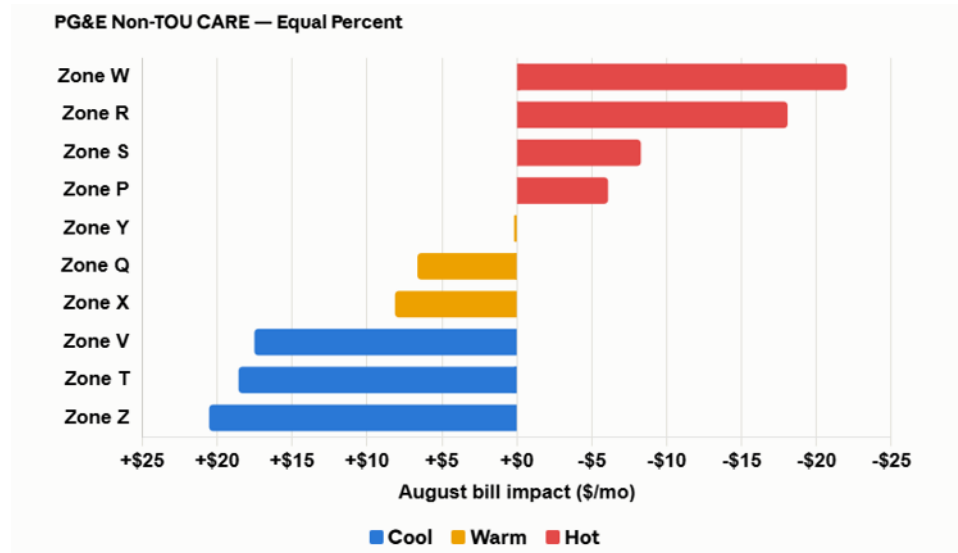
- ❖ Hot climate zones show the largest bill savings and cool zones show the largest bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone W — about \$46 per month for non-TOU customers and about \$39 for TOU customers.
- ❖ The highest bill increase occurs in Zone Z for non-TOU customers (about \$17 per month) and in Zone T for TOU customers (about \$13).

R.25-07-013 ALJ/MS9/vj4 (Attachment A)

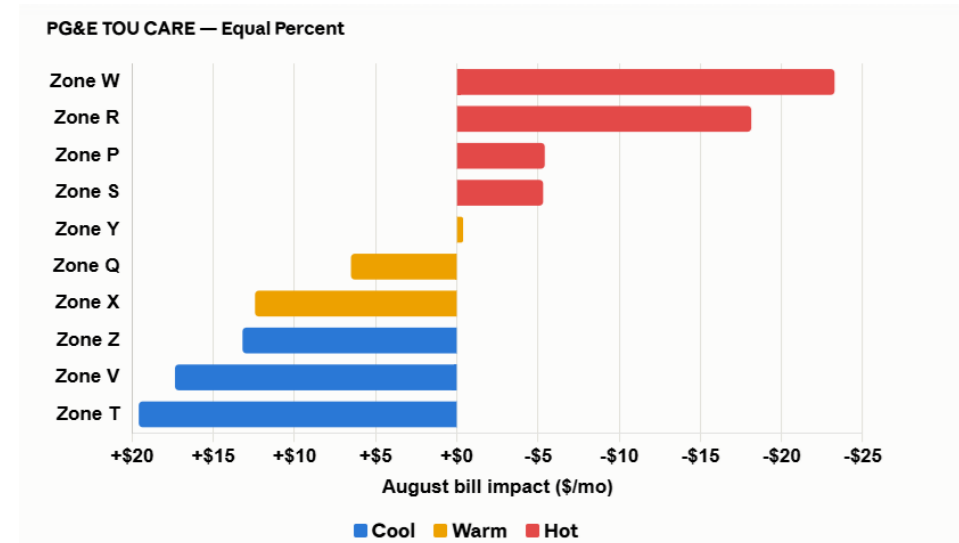
PG&E – New Energy Division Data – Equal Percent

*****CARE*****

New Data – Non-TOU rate



New Data – TOU rate

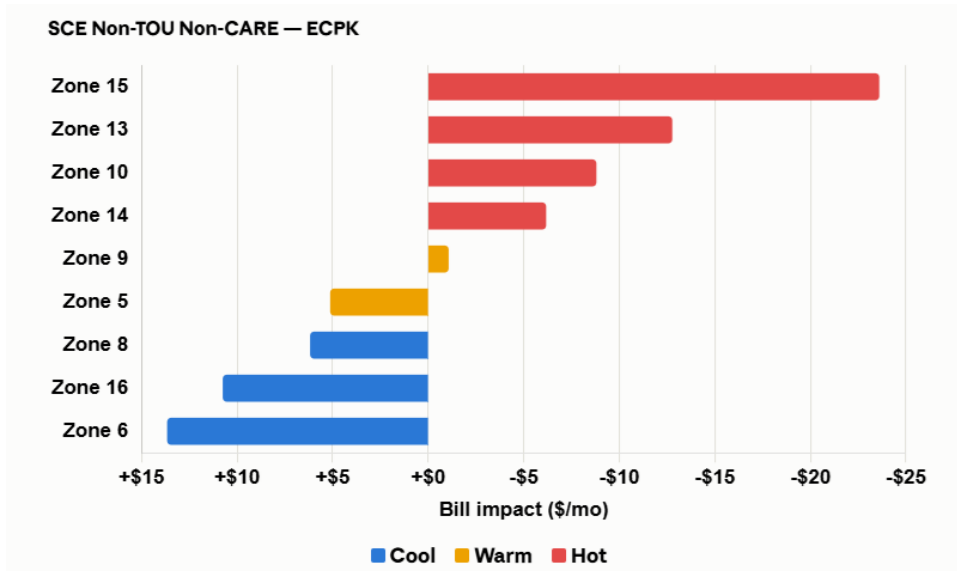


- ❖ Hot climate zones show the largest bill savings and cool zones show bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone W — about \$22 per month for non-TOU customers and about \$23 for TOU customers.
- ❖ The highest bill increase occurs in Zone Z for non-TOU customers (about \$21 per month) and in Zone T for TOU customers (about \$20).

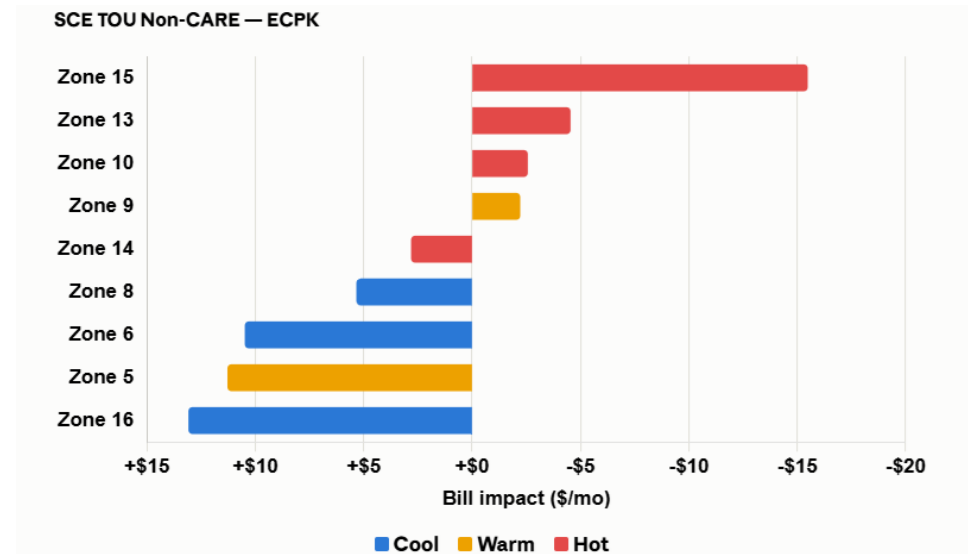
SCE – Updated Energy Division Data – ECPK

*****Non-CARE*****

Updated Data – Non-TOU rate



Updated Data – TOU rate

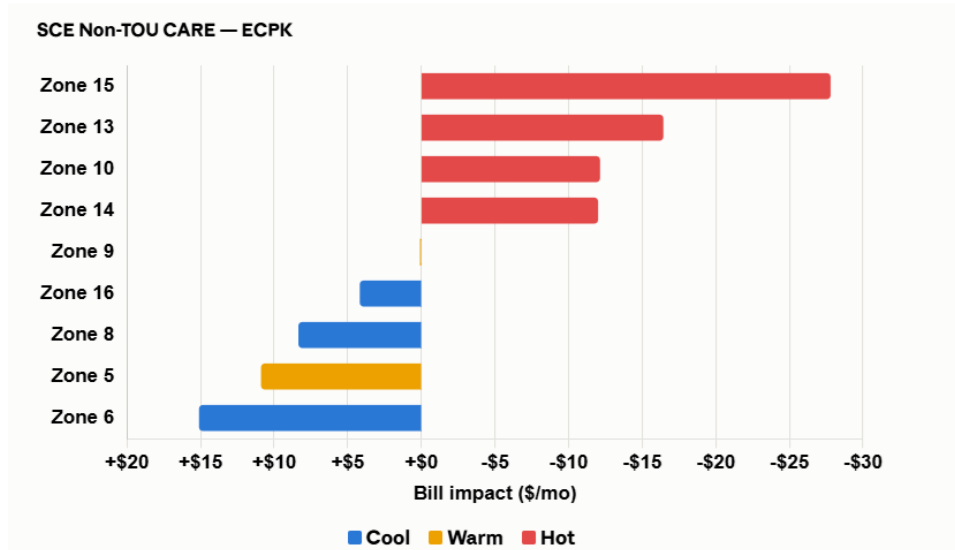


- ❖ Hot climate zones generally show the largest bill savings and cool zones generally show the largest bill increases under both non-TOU and TOU rates; for hot climate zones, Zone 14 is the exception, with TOU customers seeing a bill increase of about \$3 per month.
- ❖ The highest bill savings occurs in Zone 15 — about \$24 per month for non-TOU customers and about \$15 for TOU customers.
- ❖ The highest bill increase occurs in Zone 6 for non-TOU customers (about \$14 per month) and in Zone 16 for TOU customers (about \$13).

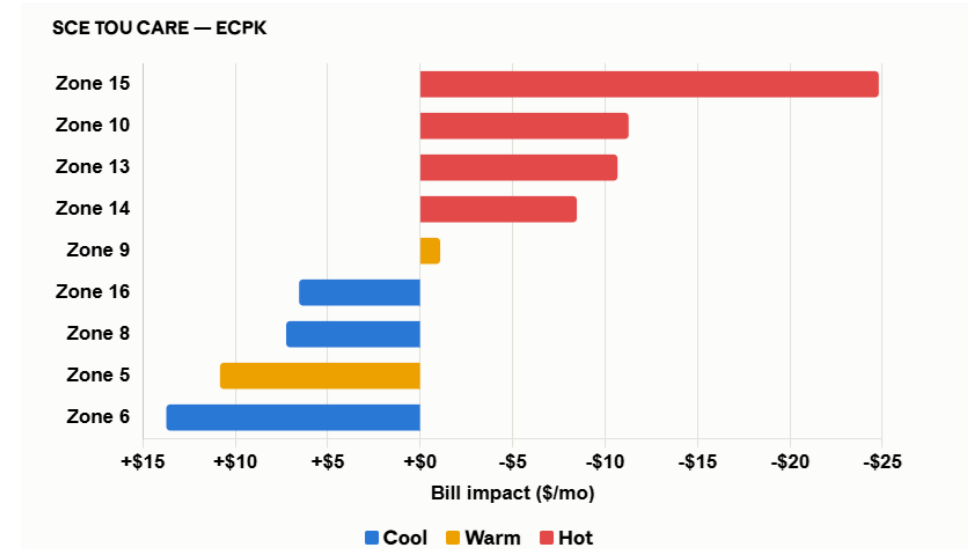
SCE – Updated Energy Division Data – ECPK

*****CARE*****

Updated Data – Non-TOU rate



Updated Data – TOU rate

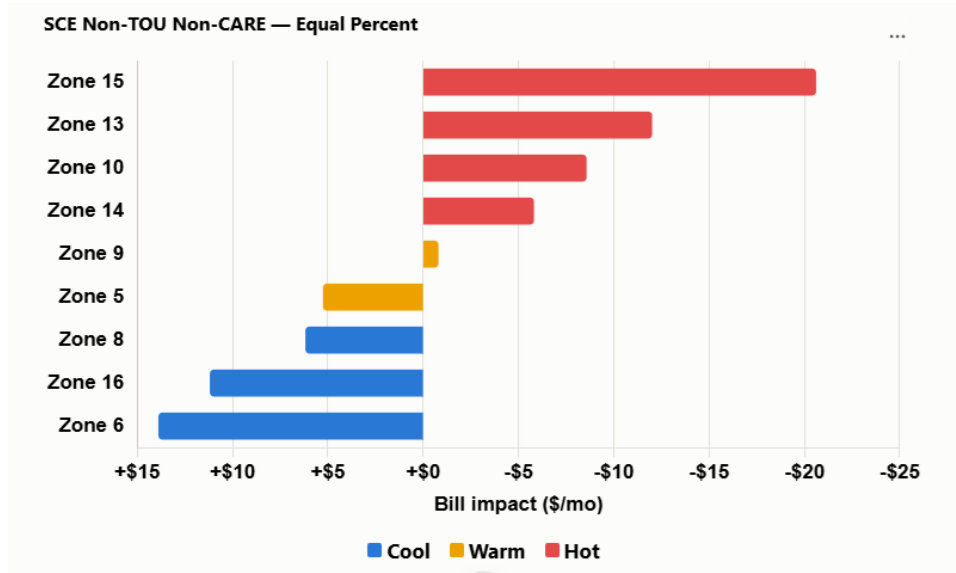


- ❖ Hot climate zones generally show the largest bill savings and cool zones generally show the largest bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone 15 — about \$28 per month for non-TOU customers and about \$25 for TOU customers.
- ❖ The highest bill increase occurs in Zone 6 — about \$15 per month for non-TOU customers and about \$14 for TOU customers.

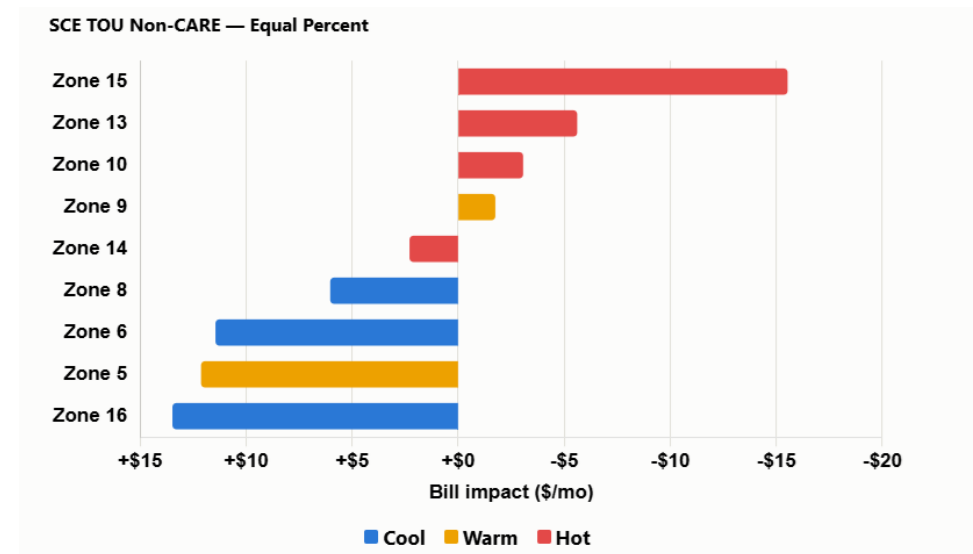
SCE – New Energy Division Data – Equal Percent

*****Non-CARE*****

New Data – Non-TOU rate



New Data – TOU rate



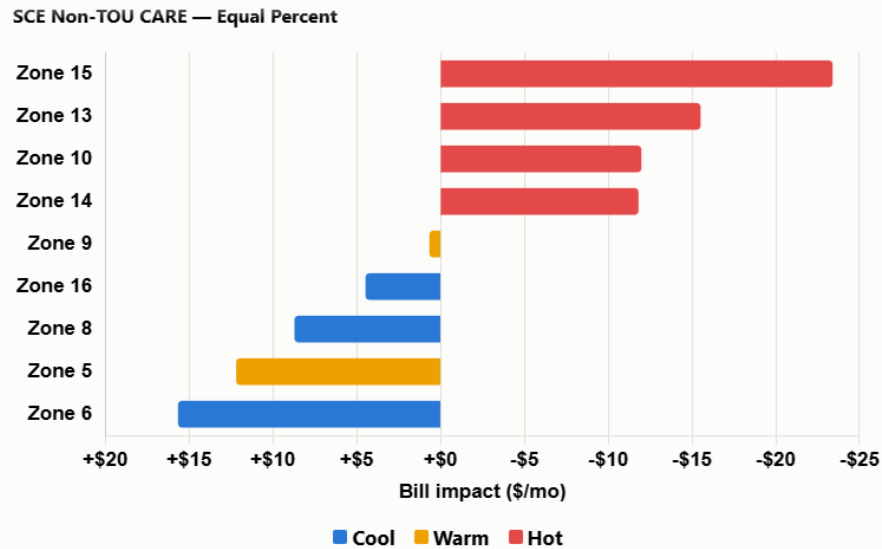
- ❖ Hot climate zones generally show the largest bill savings and cool zones generally show the largest bill increases under both non-TOU and TOU rates; for hot climate zones, Zone 14 is the exception, with TOU customers seeing a bill increase of about \$2 per month.
- ❖ The highest bill savings occurs in Zone 15 — about \$21 per month for non-TOU customers and about \$16 for TOU customers.
- ❖ The highest bill increase occurs in Zone 6 for non-TOU customers (about \$14 per month) and in Zone 16 for TOU customers (about \$13).

R.25-07-013 ALJ/MS9/vj4 (Attachment A)

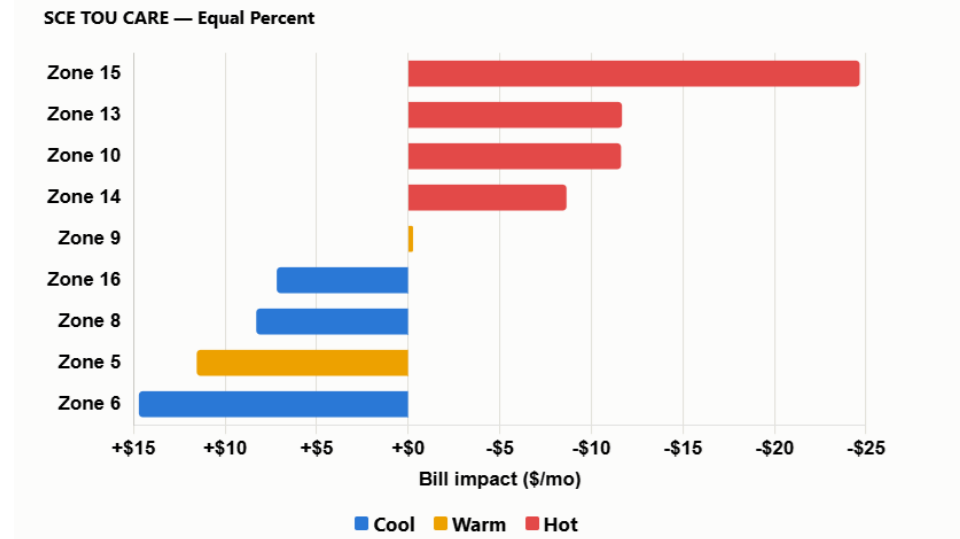
SCE – New Energy Division Data – Equal Percent

*****CARE*****

New Data – Non-TOU rate



New Data – TOU rate

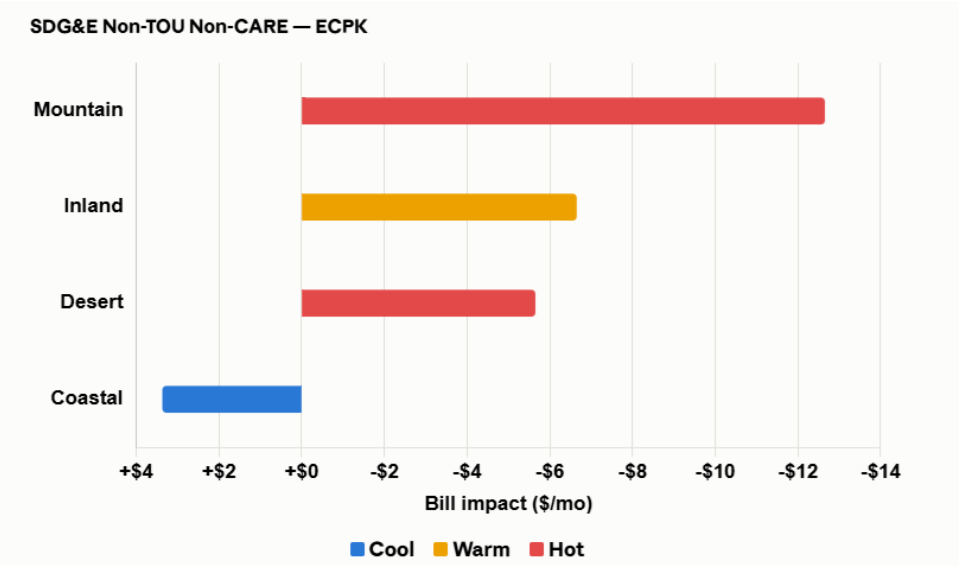


- ❖ Hot climate zones generally show the largest bill savings and cool zones generally show the largest bill increases under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Zone 15 — about \$23 per month for non-TOU customers and about \$25 for TOU customers.
- ❖ The highest bill increase occurs in Zone 6 — about \$16 per month for non-TOU customers and about \$15 for TOU customers.

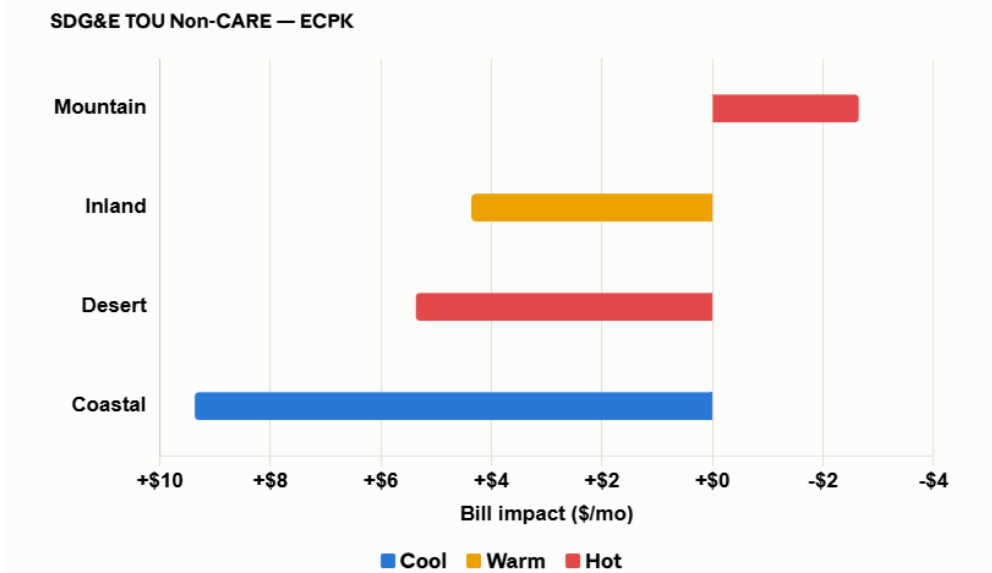
SDG&E – Updated Energy Division Data – ECPK

*****Non-CARE*****

Updated Data – Non-TOU rate



Updated Data – TOU rate

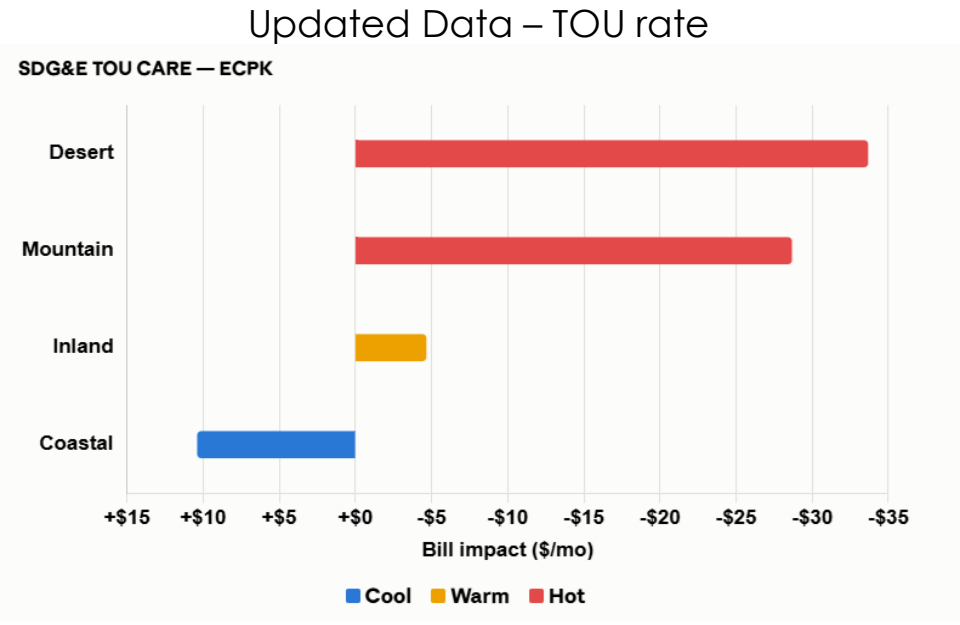
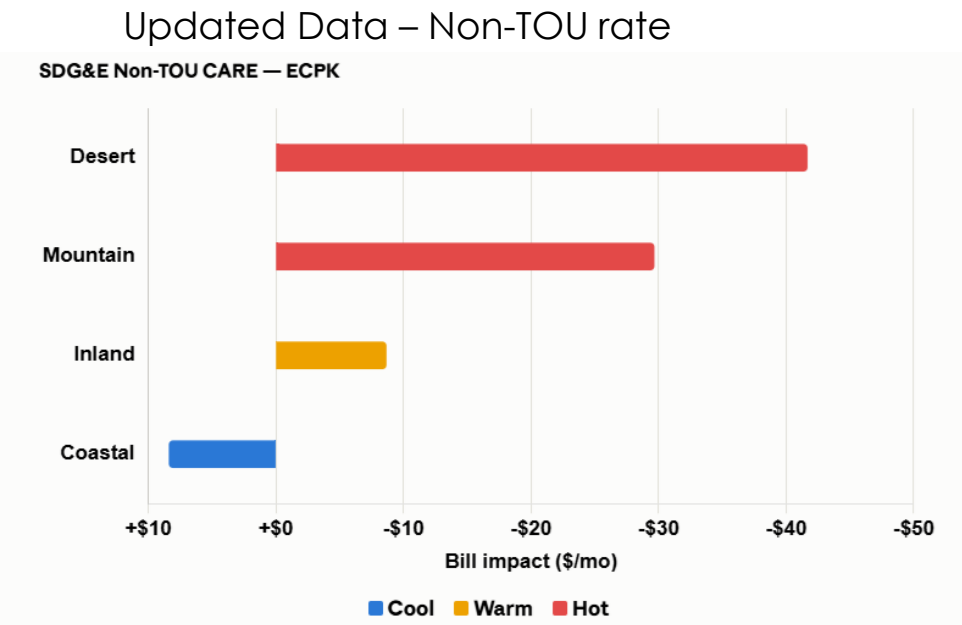


- ❖ Hot climate zones generally show the largest bill savings and the cool climate zone shows a bill increase under both TOU and non-TOU rates; for hot climate zones, Desert Zone is the exception, with TOU customers seeing a bill increase of about \$5 per month.
- ❖ The highest bill savings occurs in Mountain Zone — about \$13 per month for non-TOU customers and about \$3 for TOU customers.
- ❖ The highest bill increase occurs in Coastal Zone — about \$3 per month for non-TOU customers and about \$9 for TOU customers.

Note: Equivalent CARE data is not available at this time and will be available after the workshop.

SDG&E – Updated Energy Division Data – ECPK

*****CARE*****

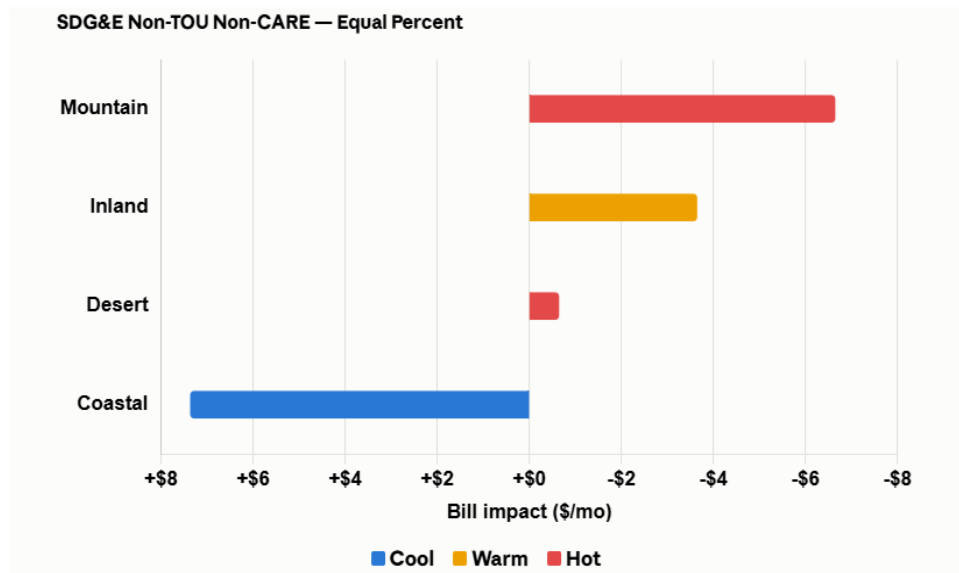


- ❖ Hot climate zones show the largest bill savings and the cool climate zone shows a bill increase under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Desert — about \$42 per month for non-TOU customers and about \$34 for TOU customers.
- ❖ The highest bill increase occurs in Coastal — about \$8 per month for non-TOU customers and about \$10 for TOU customers.

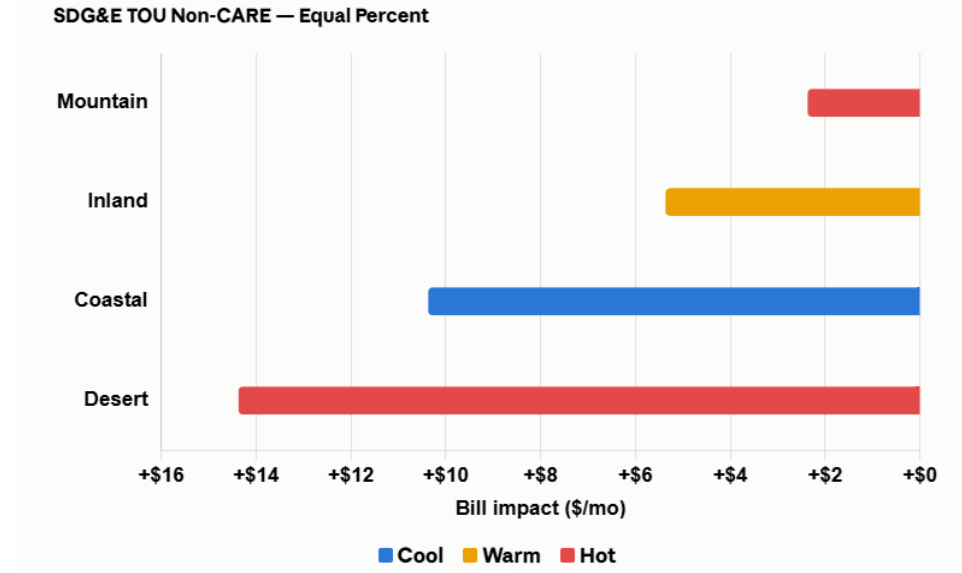
SDG&E – New Energy Division Data – Equal Percent

*****Non-CARE*****

New Data – Non-TOU rate



New Data – TOU rate



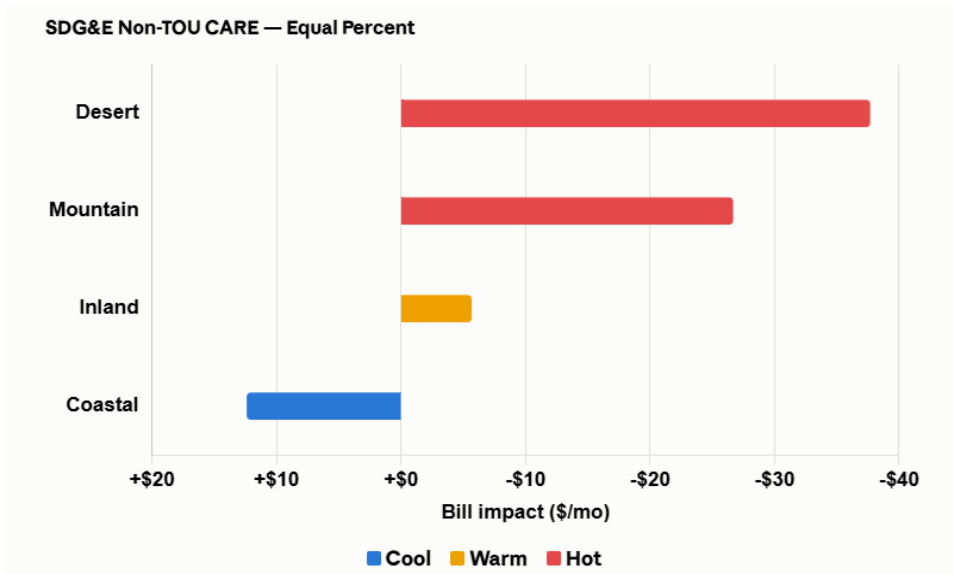
- ❖ Hot climate zones generally show the largest bill savings and the cool climate zone shows a bill increase; under TOU rates, all climate zones show bill increases.
- ❖ The highest bill savings occurs in Mountain Zone — about \$7 per month for non-TOU customers; no zone shows savings under TOU rates.
- ❖ The highest bill increase occurs in Coastal Zone for non-TOU customers (about \$7 per month) and in Desert Zone for TOU customers (about \$14).

Note: Equivalent CARE data is not available at this time and will be available after the workshop.

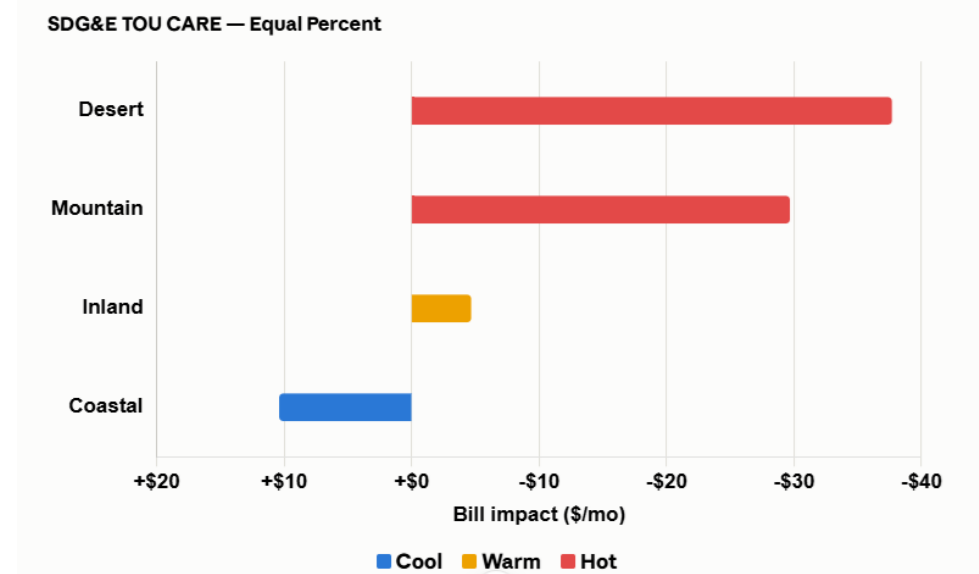
SDG&E – New Energy Division Data – Equal Percent

*****CARE*****

New Data – Non-TOU rate



New Data – TOU rate



- ❖ Hot climate zones show the largest bill savings and the cool climate zone shows a bill increase under both TOU and non-TOU rates.
- ❖ The highest bill savings occurs in Desert — about \$38 per month under both non-TOU and TOU rates.
- ❖ The highest bill increase occurs in Coastal — about \$12 per month for non-TOU customers and about \$10 for TOU customers.

Comparison of CARE and Non-CARE

ECPK

- ❖ **A typical CARE customer generally sees larger bill savings than a non-CARE customer in the same climate zone and on the same rate.** In PG&E Zone W, a CARE customer on a non-TOU rate sees about \$54 per month in savings compared with about \$44 for a non-CARE customer; in SCE Zone 15, the difference is about \$28 versus \$24; in SDG&E Desert Zone, about \$42 versus \$6.
- ❖ **The relationship between CARE status and bill increases varies by utility.** In PG&E's cool climate zones, a typical non-CARE customer sees a larger increase than a CARE customer — about \$18 versus \$12 per month in Zone Z on a non-TOU rate; in SDG&E Coastal Zone, the reverse holds, about \$8 for CARE versus \$3 for non-CARE; in SCE, the pattern is mixed, with CARE customers seeing larger increases in Zones 6 and 8 and non-CARE customers seeing larger increases in Zone 16.

Equal Percent

- ❖ The relationship between CARE status and **bill savings** varies by utility. **In PG&E's hot climate zones, a typical non-CARE customer sees larger savings than a CARE customer** — about \$46 versus \$22 per month in Zone W on a non-TOU rate; **in SCE, the reverse holds:** a CARE customer in Zone 15 sees about \$23 compared with about \$21 for a non-CARE customer; in SDG&E Desert Zone, a CARE customer sees about \$38 compared with about \$1 for a non-CARE customer.
- ❖ **A typical CARE customer in a cool climate zone generally sees a larger bill increase than a non-CARE customer.** In PG&E Zone Z, a CARE customer on a non-TOU rate sees an increase of about \$21 per month compared with about \$17 for a non-CARE customer; in SCE Zone 6, about \$16 compared with about \$14; in SDG&E Coastal Zone, about \$12 compared with about \$7.

Comparison of ECPK and Equal Percent (within rate type)

K.25-07-013 ASJ/MS9/vi4

(Attachment A)

Non-TOU

- ❖ In hot climate zones, PG&E and SCE non-CARE **bill savings** are similar under both methods; equal percent produces smaller savings than ECPK for CARE customers and for SDG&E non-CARE customers. In PG&E Zone W, a typical CARE customer sees about \$54 per month in savings under ECPK and \$22 under equal percent; in SCE Zone 15, about \$28 and \$23; in SDG&E Desert Zone, about \$42 and \$38 for CARE customers.
- ❖ In cool climate zones, PG&E and SCE non-CARE **bill increases** are similar under both methods; equal percent produces larger increases for CARE customers and SDG&E non-CARE customers. In PG&E Zone Z, a typical CARE customer sees about \$12 per month under ECPK and \$21 under equal percent; in SCE Zone 6, about \$15 and \$16; in SDG&E Coastal Zone, about \$8 and \$12 for CARE customers.

TOU

- ❖ In hot climate zones, equal percent produces smaller **bill savings** for PG&E CARE customers and larger savings for PG&E non-CARE customers; SCE savings are similar and SDG&E savings somewhat larger. In PG&E Zone W, a typical CARE customer sees about \$39 per month under ECPK and \$23 under equal percent, a non-CARE customer about \$23 and \$39; for CARE customers, SCE Zone 15 is about \$25 and \$25, SDG&E Desert Zone about \$34 and \$38.
- ❖ In cool climate zones, equal percent produces larger **bill increases** for PG&E CARE customers and smaller increases for PG&E non-CARE customers; SCE and SDG&E increases are similar. In PG&E Zone T, a typical CARE customer sees about \$15 per month under ECPK and \$20 under equal percent, a non-CARE customer about \$17 and \$13; for CARE customers, SCE Zone 6 is about \$14 and \$15, SDG&E Coastal Zone about \$10 and \$10.

Appendix - Updated and New Energy Division-Requested Bill Impact Data

ED Bill Impact Data Request – Updated Data

R.25-07-013 ALJ/MS9/vj4

(Attachment A)

	PG&E Non-TOU Customers - ECPK							
	CARE				Non-CARE			
	Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario		Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario	
Climate Zone	August	September	August	September	August	September	August	September
Valley-S	\$168.82	\$141.82	\$138.55	\$118.69	\$258.82	\$220.82	\$235.35	\$203.70
Valley-P	\$150.82	\$118.82	\$126.48	\$103.53	\$234.82	\$178.82	\$217.62	\$170.93
Hills-X	\$61.82	\$61.82	\$63.78	\$63.25	\$138.82	\$137.82	\$139.56	\$138.21
Desert-Z	\$41.82	\$39.82	\$53.62	\$52.05	\$56.82	\$46.82	\$74.71	\$66.45
Desert-Y	\$125.82	\$100.82	\$109.92	\$91.45	\$135.82	\$107.82	\$138.04	\$114.65
Desert-W	\$239.82	\$184.82	\$186.30	\$147.15	\$342.82	\$274.82	\$299.23	\$244.64
Desert-R	\$219.82	\$173.82	\$173.27	\$140.24	\$320.82	\$249.82	\$284.02	\$226.52
Coast-V	\$42.82	\$44.82	\$53.22	\$54.18	\$87.82	\$88.82	\$99.53	\$99.75
Coast-T	\$32.82	\$33.82	\$46.27	\$46.49	\$72.82	\$75.82	\$87.66	\$89.71
Coast-Q	\$87.82	\$90.82	\$83.94	\$85.37	\$162.82	\$165.82	\$160.42	\$161.77

	PG&E TOU Customers - ECPK							
	CARE				Non-CARE			
	Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario		Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario	
Climate Zone	August	September	August	September	August	September	August	September
Valley-S	\$136.82	\$117.82	\$120.75	\$105.41	\$179.82	\$159.82	\$175.94	\$157.77
Valley-P	\$147.82	\$117.82	\$131.05	\$108.37	\$185.82	\$147.82	\$185.42	\$152.91
Hills-X	\$60.82	\$60.82	\$66.43	\$65.04	\$129.82	\$128.82	\$137.00	\$133.74
Desert-Z	\$65.82	\$66.82	\$72.04	\$72.17	\$71.82	\$58.82	\$88.41	\$76.71
Desert-Y	\$123.82	\$104.82	\$112.89	\$97.28	\$136.82	\$113.82	\$142.43	\$122.05
Desert-W	\$178.82	\$139.82	\$139.93	\$114.69	\$209.82	\$172.82	\$187.04	\$160.75
Desert-R	\$173.82	\$138.82	\$141.46	\$117.70	\$212.82	\$169.82	\$196.57	\$164.37
Coast-V	\$46.82	\$47.82	\$58.44	\$58.05	\$87.82	\$91.82	\$103.10	\$104.84
Coast-T	\$35.82	\$36.82	\$50.40	\$50.36	\$75.82	\$77.82	\$92.93	\$93.27
Coast-Q	\$94.82	\$104.82	\$92.25	\$99.55	\$161.82	\$162.82	\$166.13	\$163.29

ED Bill Impact Data Request – Updated Data

SCE Average Bill Impact per customer per month per Baseline Zone by CARE & Non-CARE Residential TOU Customers - ECPK

	Climate Zones								
All Usage Climat Credit	5	6	8	9	10	13	14	15	16
CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 10.81	\$ 13.71	\$ 7.23	\$ (1.06)	\$ (11.25)	\$ (10.65)	\$ (8.45)	\$ (24.78)	\$ 6.53
Non-CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 11.27	\$ 10.47	\$ 5.33	\$ (2.20)	\$ (2.55)	\$ (4.52)	\$ 2.80	\$ (15.46)	\$ 13.07

SCE Average Bill Impact per customer per month per Baseline Zone by CARE & Non-CARE Residential Tiered Customers - ECPK

	Climate Zones								
All Usage Climat Credit	5	6	8	9	10	13	14	15	16
CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 10.87	\$ 15.08	\$ 8.33	\$ 0.07	\$ (12.11)	\$ (16.41)	\$ (11.98)	\$ (27.77)	\$ 4.16
Non-CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 5.11	\$ 13.64	\$ 6.16	\$ (1.05)	\$ (8.78)	\$ (12.75)	\$ (6.15)	\$ (23.58)	\$ 10.73

ED Bill Impact Data Request – Updated Data

Volumetric CCC Distribution

Avg. Monthly Bill Impact / Cust.

Field	Avg kWh	Average DR kWh	ECPK - DR	Average TOU-DR1 kWh	ECPK - TOU-DR 1
Coastal	Non-CARE	396 \$	(46)	344 \$	(40)
Inland	Non-CARE	485 \$	(56)	387 \$	(45)
Mountain	Non-CARE	534 \$	(62)	451 \$	(52)
Desert	Non-CARE	480 \$	(55)	383 \$	(44)
Coastal	CARE	353 \$	(41)	341 \$	(39)
Inland	CARE	502 \$	(58)	469 \$	(54)
Mountain	CARE	688 \$	(79)	676 \$	(78)
Desert	CARE	789 \$	(91)	723 \$	(83)

Note 1: SDG&E's figures reflect the gross volumetric credit; net bill impact is the amount shown less the \$49.36 flat credit.

ED Bill Impact Data Request – New Data

R.25-07-013 ALJ/MS9/vja (Attachment A)

	PG&E Non-TOU Customers - Equal Percent							
	CARE				Non-CARE			
	Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario		Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario	
Climate Zone	August	September	August	September	August	September	August	September
Valley-S	\$168.82	\$141.82	\$160.57	\$138.86	\$258.82	\$220.82	\$233.88	\$203.17
Valley-P	\$150.82	\$118.82	\$144.76	\$120.17	\$234.82	\$178.82	\$215.75	\$170.47
Hills-X	\$61.82	\$61.82	\$69.93	\$69.64	\$138.82	\$137.82	\$138.06	\$136.73
Desert-Z	\$41.82	\$39.82	\$62.33	\$60.93	\$57.82	\$46.82	\$74.50	\$65.45
Desert-Y	\$125.82	\$100.82	\$125.98	\$106.07	\$135.82	\$107.82	\$137.09	\$114.31
Desert-W	\$239.82	\$184.82	\$217.83	\$173.93	\$342.82	\$274.82	\$297.01	\$243.76
Desert-R	\$219.82	\$173.82	\$201.78	\$165.16	\$320.82	\$249.82	\$281.82	\$225.64
Coast-V	\$42.82	\$44.82	\$60.31	\$61.39	\$87.82	\$88.82	\$97.51	\$97.51
Coast-T	\$32.82	\$33.82	\$51.37	\$51.85	\$72.82	\$75.82	\$85.50	\$87.17
Coast-Q	\$87.82	\$90.82	\$94.43	\$96.42	\$162.82	\$165.82	\$155.05	\$156.19

	PG&E TOU Customers - Equal Percent							
	CARE				Non-CARE			
	Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario		Avg Monthly Bill with current CCC (\$)		Average Monthly Bill (\$) with Volumetric Credit Scenario	
Climate Zone	August	September	August	September	August	September	August	September
Valley-S	\$136.82	\$117.82	\$131.53	\$115.70	\$179.82	\$159.82	\$164.31	\$147.12
Valley-P	\$147.82	\$117.82	\$142.43	\$118.25	\$185.82	\$147.82	\$175.12	\$144.41
Hills-X	\$60.82	\$60.82	\$73.23	\$72.15	\$129.82	\$128.82	\$129.86	\$126.06
Desert-Z	\$65.82	\$66.82	\$79.00	\$79.79	\$71.82	\$58.82	\$83.92	\$72.61
Desert-Y	\$123.82	\$104.82	\$123.46	\$107.19	\$136.82	\$113.82	\$135.04	\$115.43
Desert-W	\$178.82	\$139.82	\$155.58	\$127.38	\$209.82	\$172.82	\$170.60	\$147.00
Desert-R	\$173.82	\$138.82	\$155.71	\$129.50	\$212.82	\$169.82	\$181.92	\$152.40
Coast-V	\$46.82	\$47.82	\$64.16	\$64.03	\$87.82	\$91.82	\$98.41	\$99.56
Coast-T	\$35.82	\$36.82	\$55.39	\$55.54	\$75.82	\$77.82	\$88.70	\$88.55
Coast-Q	\$94.82	\$104.82	\$101.32	\$109.03	\$161.82	\$162.82	\$158.59	\$154.80

ED Bill Impact Data Request – New Data

SCE Average Bill Impact per customer per month per Baseline Zone by CARE & Non-CARE Residential TOU Customers - Equal Percent									
	Climate Zones								
All Usage Climat Credit	5	6	8	9	10	13	14	15	16
CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 11.53	\$ 14.69	\$ 8.28	\$ (0.24)	\$ (11.60)	\$ (11.65)	\$ (8.62)	\$ (24.63)	\$ 7.16
Non-CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 12.11	\$ 11.43	\$ 6.02	\$ (1.73)	\$ (3.04)	\$ (5.59)	\$ 2.28	\$ (15.51)	\$ 13.46

SCE Average Bill Impact per customer per month per Baseline Zone by CARE & Non-CARE Residential Tiered Customers - Equal Percent									
	Climate Zones								
All Usage Climat Credit	5	6	8	9	10	13	14	15	16
CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 12.17	\$ 15.64	\$ 8.69	\$ 0.64	\$ (11.96)	\$ (15.49)	\$ (11.79)	\$ (23.37)	\$ 4.45
Non-CARE Eligible Residential Accounts - Average Bill Impact (\$)	\$ 5.24	\$ 13.87	\$ 6.16	\$ (0.78)	\$ (8.55)	\$ (11.99)	\$ (5.79)	\$ (20.59)	\$ 11.17

ED Bill Impact Data Request – New Data

Volumetric CCC Distribution

Avg. Monthly Bill Impact / Cust.

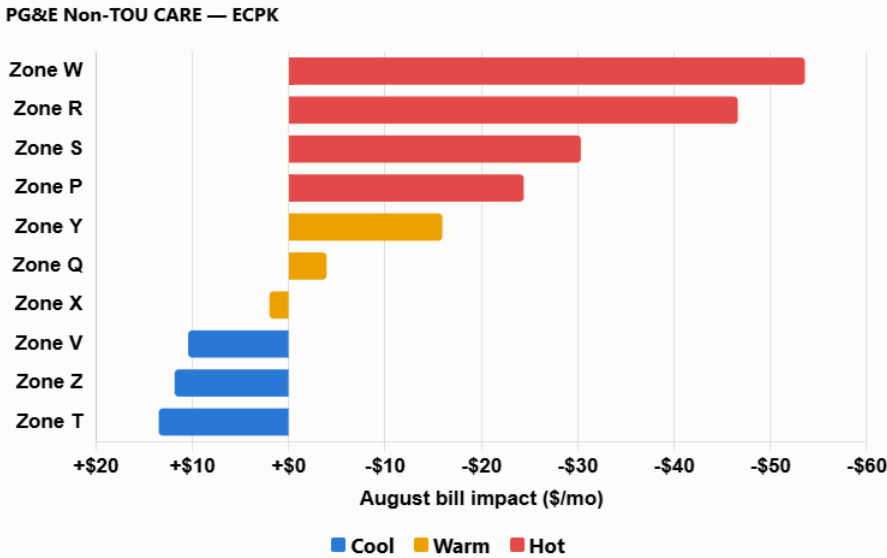
Field	Avg kWh	Average DR kWh	Equal Percent DR	Average TOU- DR1 kWh	Equal Percent TOU-DR 1
Coastal	Non-CARE	396	\$ (42)	344	\$ (39)
Inland	Non-CARE	485	\$ (53)	387	\$ (44)
Mountain	Non-CARE	534	\$ (56)	451	\$ (47)
Desert	Non-CARE	480	\$ (50)	383	\$ (35)
Coastal	CARE	353	\$ (37)	341	\$ (39)
Inland	CARE	502	\$ (55)	469	\$ (54)
Mountain	CARE	688	\$ (76)	676	\$ (79)
Desert	CARE	789	\$ (87)	723	\$ (87)

Note 1: SDG&E's figures reflect the gross volumetric credit; net bill impact is the amount shown less the \$49.36 flat credit.

Pulling it Together – IOUs, Energy Division, ACO

PGE CARE Updated Data Non-TOU Rate

Updated Data – Non-TOU rate



CARE Count B(c)

Climate Zone	Customer Count
W	131,362
R	237,292
S	254,258
P	40,014
Y	10,877
Q	1,309
X	313,975
V	15,616
Z	154
T	223,980

PG&E Slide:

- The data shows that 42% of CARE customers are below median residential usage in August and September (Section A (c)) implying they may be worse off under a volumetric design as compared to the status quo.

- ❖ The highest bill savings occurs in Zone W — about \$54 per month for non-TOU customers and about \$39 for TOU customers.
- ❖ The highest bill increase occurs in Zone T — about \$13 per month for non-TOU customers and about \$15 for TOU customers.

Pulling it Together – IOUs, Energy Division, ACO

- Thinking only within the Cap-and-Invest Program:
 - Costs are volumetric, so customers in cooler zones are using less and paying less for Cap-and-Invest costs overall
 - A smaller credit moves them closer to cost neutrality for the program
 - Doesn't mean they aren't still net ahead for the Cap-and-Invest Program
- For PG&E, for every hot zone customer there are nearly two warm/cool zone customers
 - With the volumetric cooler customers, that have less costs overall, are giving up a little each so that hot zone customers, which have higher costs, and gain a lot each because there are fewer of them
 - Moving those customers closer to cost neutrality for the Cap-and-Invest Program

Pulling it Together – IOUs, Energy Division, ACO

- CARE/FERA creates a cliff – you are in or you are out
- Volumetric is a continuous credit without a cliff

Questions?



Lunch Break

12:00pm-1:00pm

Nearby to 505 Van Ness:

- Salty's – Sandwiches (Van Ness)
- Dragon Eats – Banh Mi (Gough)
- Saigon Sandwich – Banh Mi (Larkin)
- Outta Sight Pizza (Larkin)
- Rad Radish – Vegan (Franklin)

Coffee:

- Hayes Valley Bakeworks – 550 Gough
- Peets – Across Golden Gate
- SPRO – One block up Golden Gate

Creating the Climate Credit of the Future

CPUC Climate Credit Workshop

Lane D. Smith, Ph.D.

August 11, 2026

- Brief discussion of our data and methodology
- Overview of the impact and limitations of the business-as-usual (BAU) Climate Credit distribution
- Discussion of opportunities for providing increased support to customers who need it the most, including through:
 - Making distribution magnitudes proportional to bill magnitudes
 - Timing distributions so they occur in regions' highest-bill months
 - Providing larger distributions to customers enrolled in discount programs

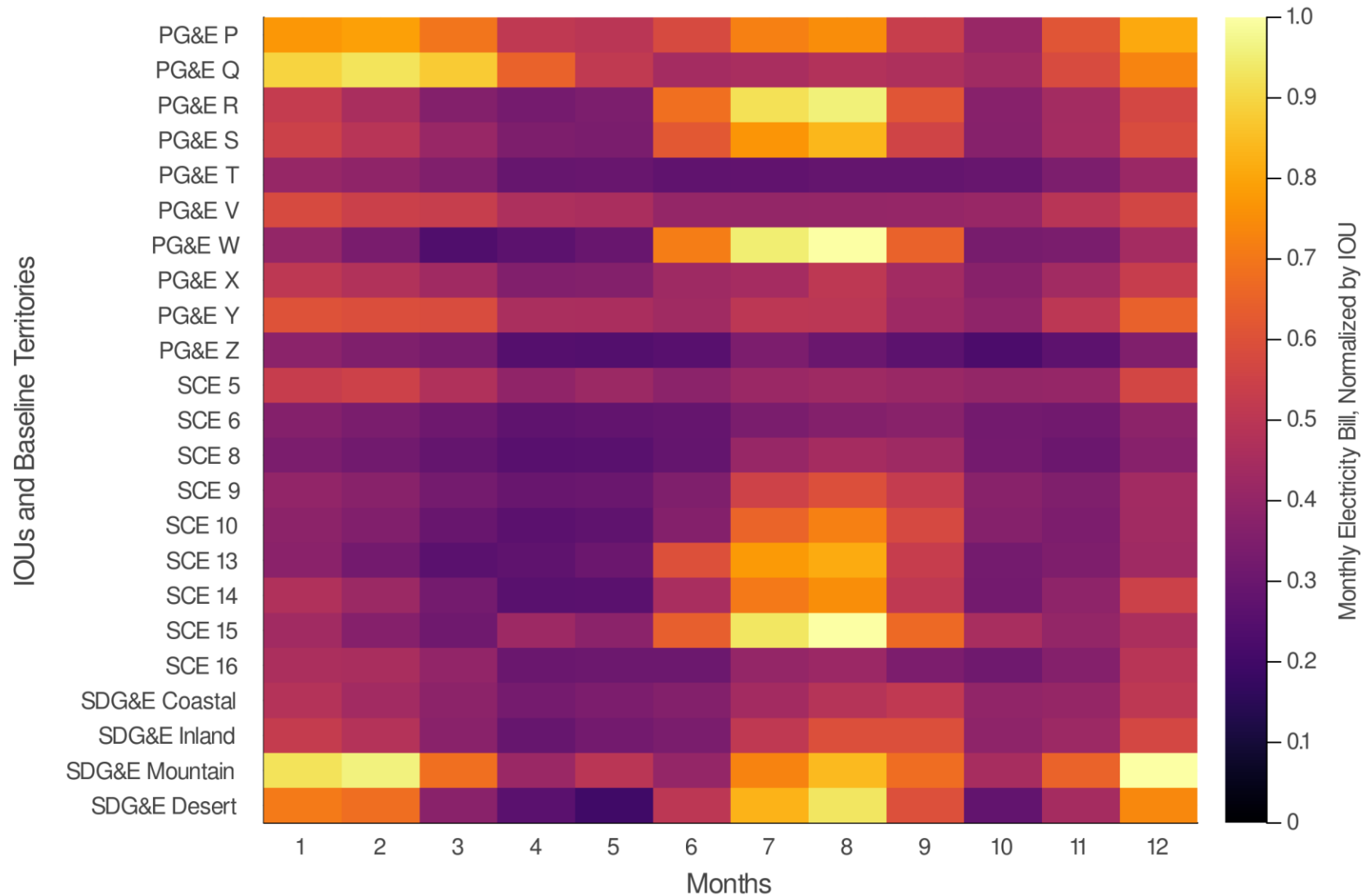
R.25-07-016 ALJ/MS9/vj4 (Attachment A)

Brief Discussion of Data Methodology

- To calculate monthly electricity bills, we use:
 - Average consumption profiles and customer counts from E3's Fixed Charge Design Tool
 - Latest rate information from the three large investor-owned utilities' (IOUs') tariffs
- The data from E3's Fixed Charge Design Tool contain useful customer classifications, including:
 - Baseline territory location
 - Discount program (i.e., CARE, FERA) enrollment
 - Net-energy metering (NEM) participation
- Overall, our calculated monthly bill profiles are similar to those recently reported by the IOUs

R.25-07-013 ALJ/MS9/v14 (Attachment A)

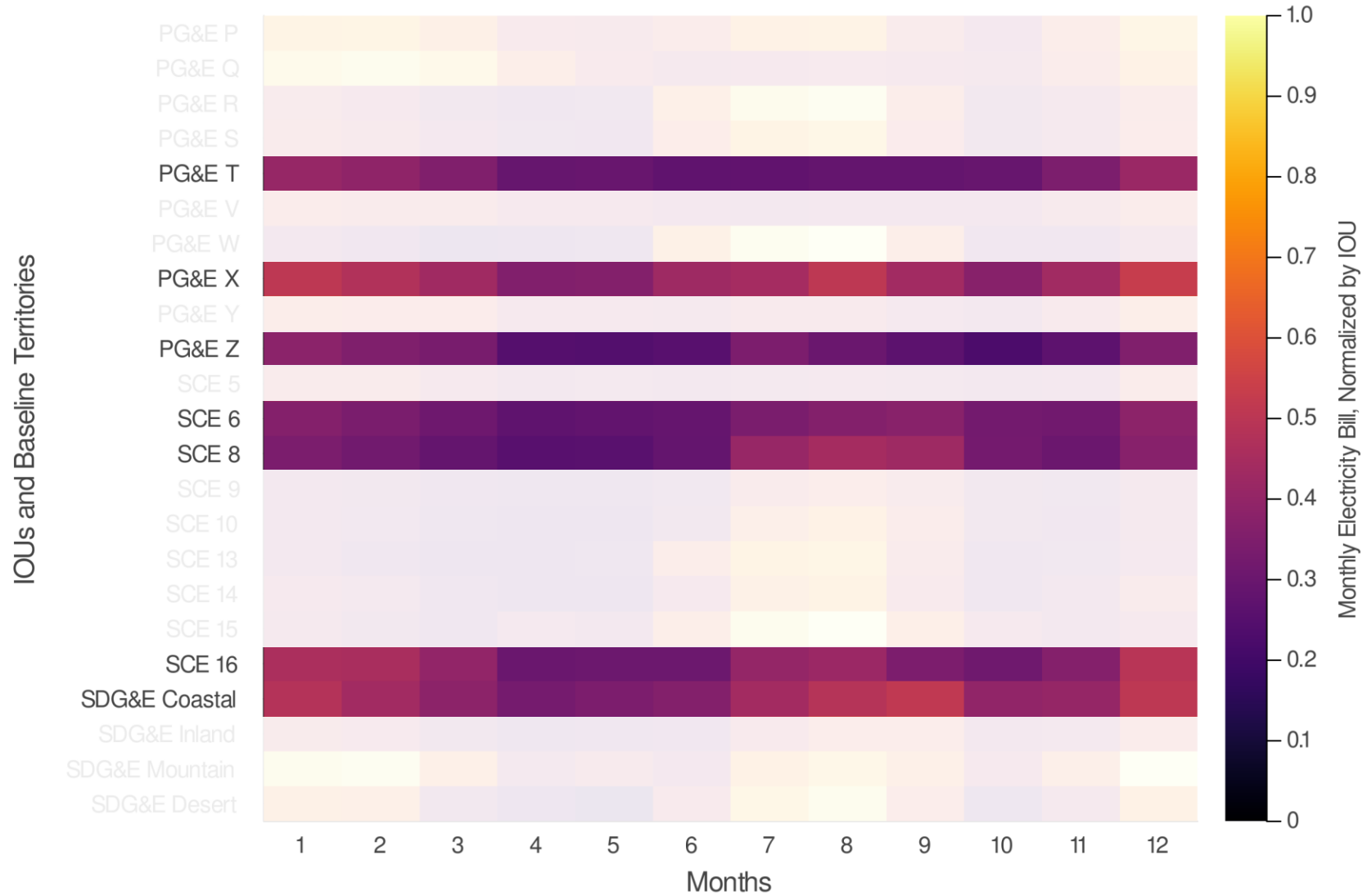
Normalized Electricity Bills for each IOU & Baseline Territory



Flat Electricity Bills

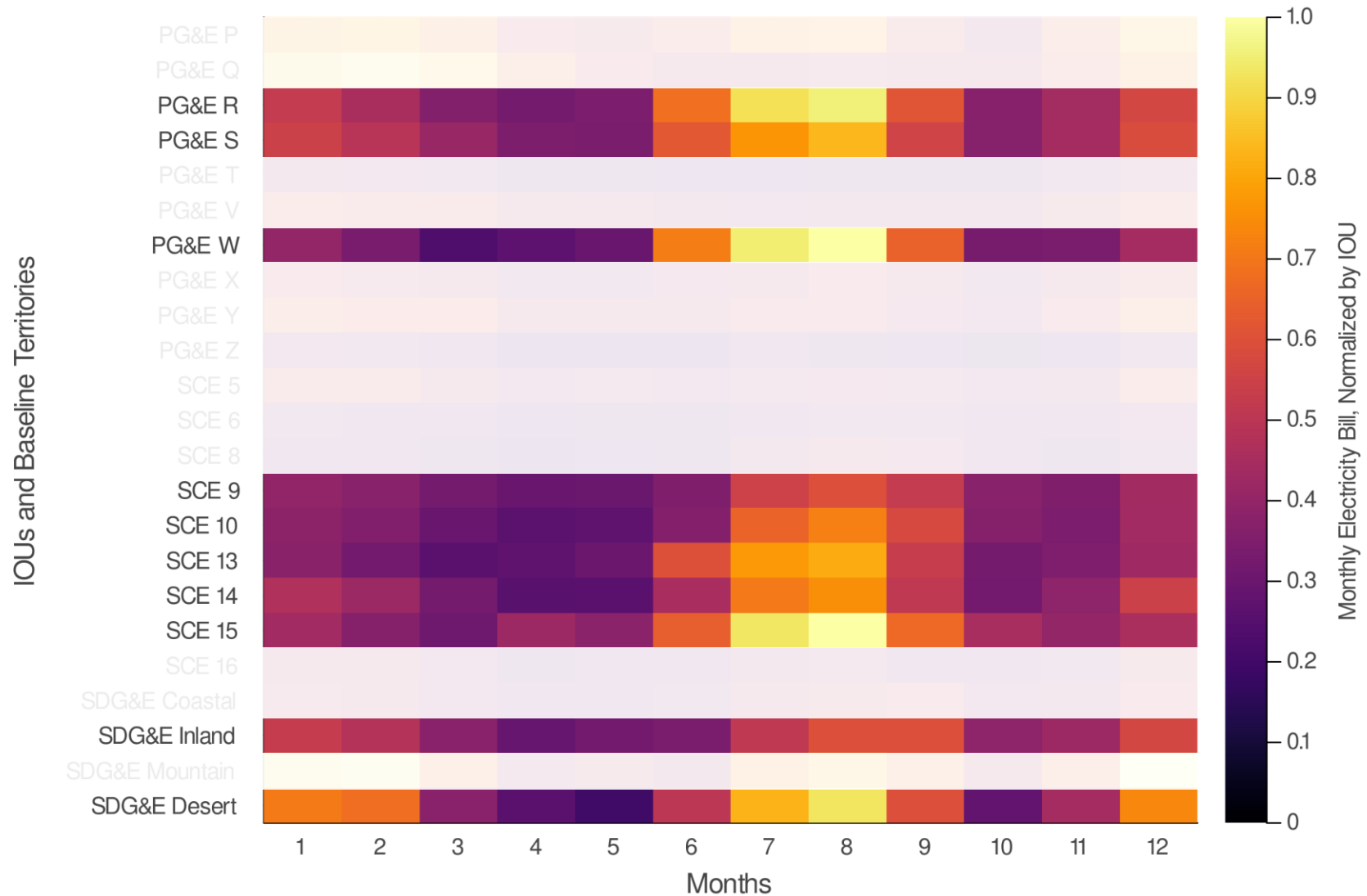
R.25-07-013 ALL/MS9/vj4

(Attachment A)



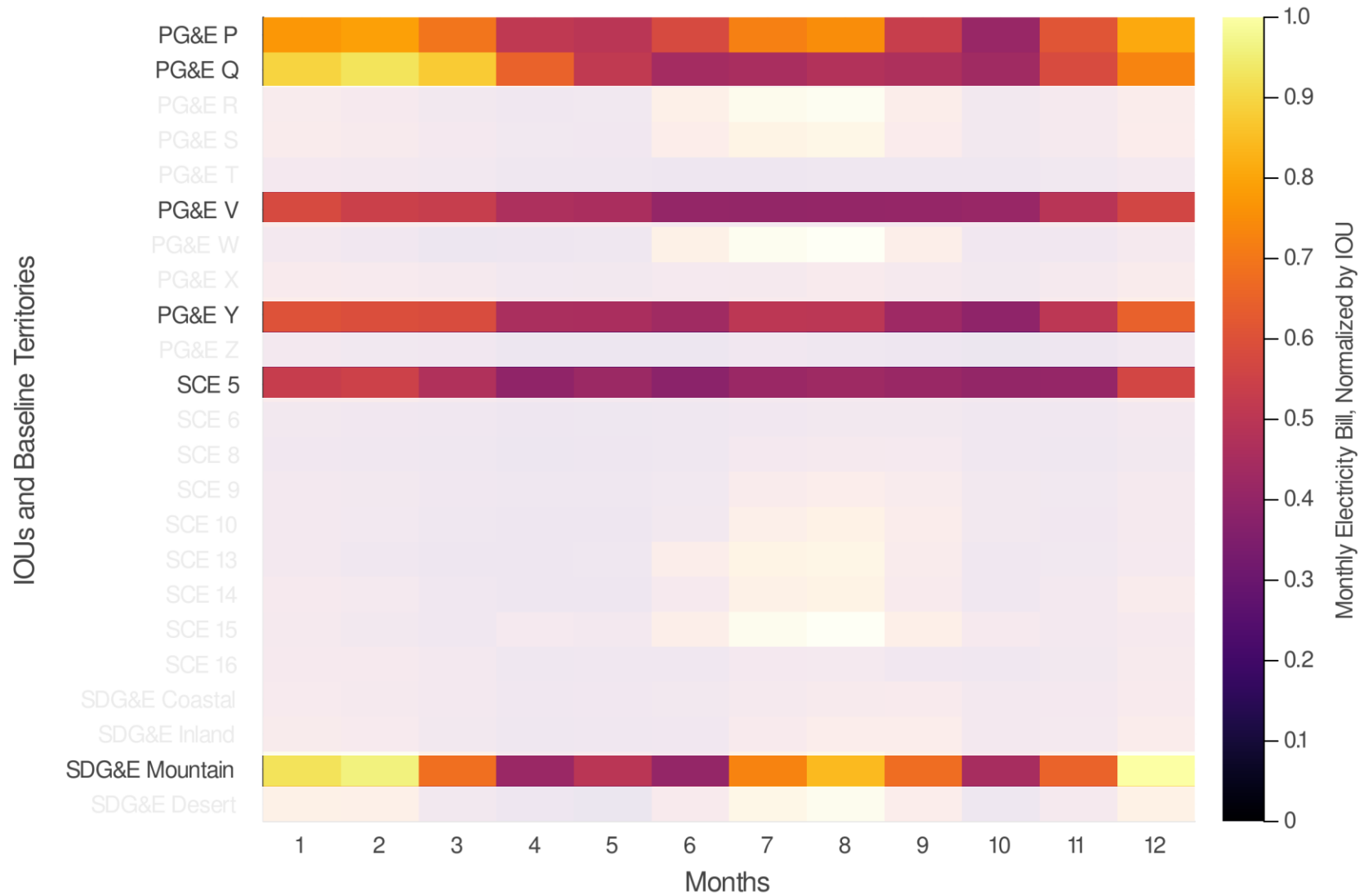
R.25-07-013 ALJ/MS9/vj4 (Attachment A)

Summer-Peaking Electricity Bills



R.25-07-013 ALI/MS9/v14 (Attachment A)

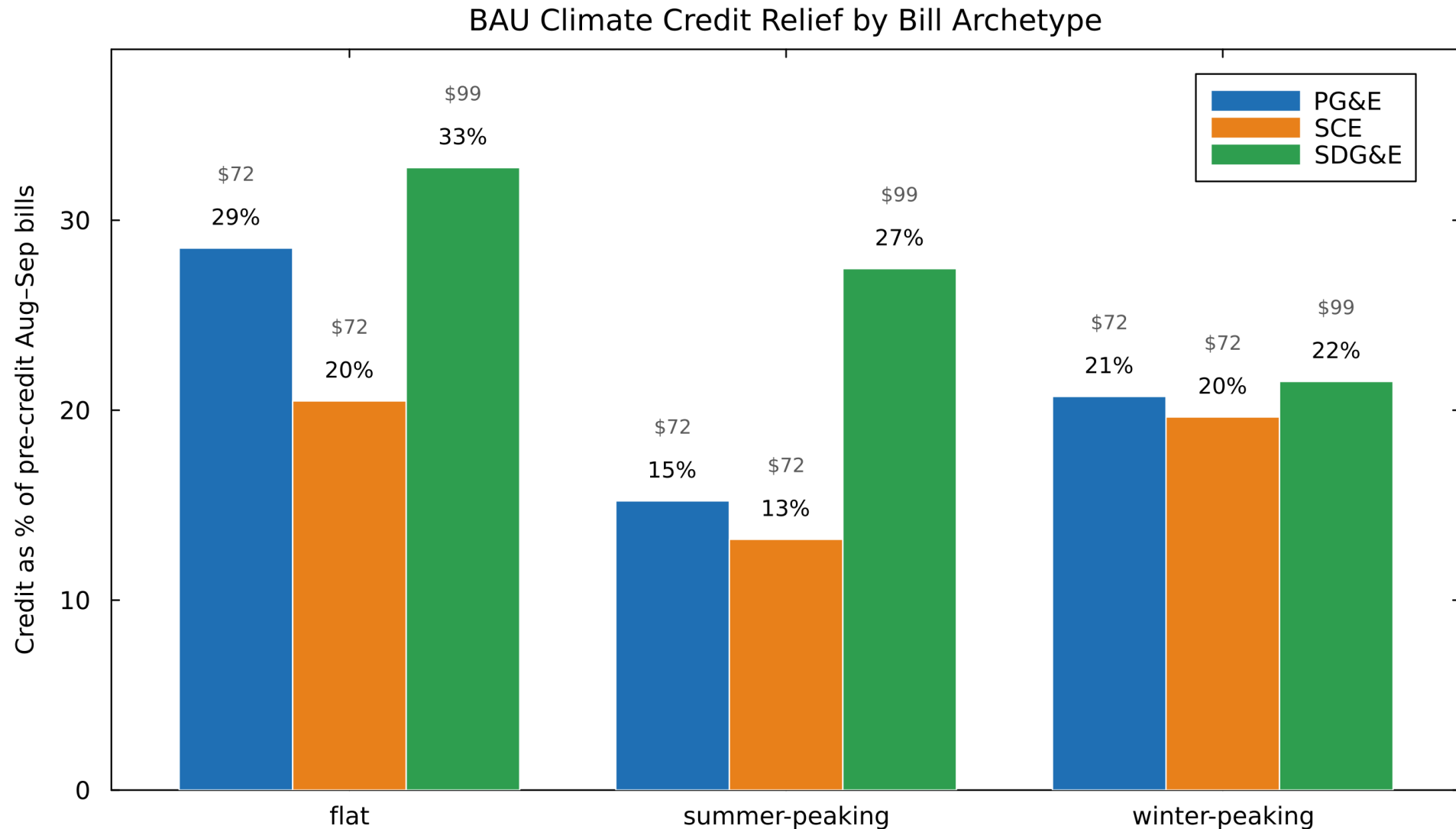
Winter-Peaking Electricity Bills



Impacts of Business-as-Usual Distributions

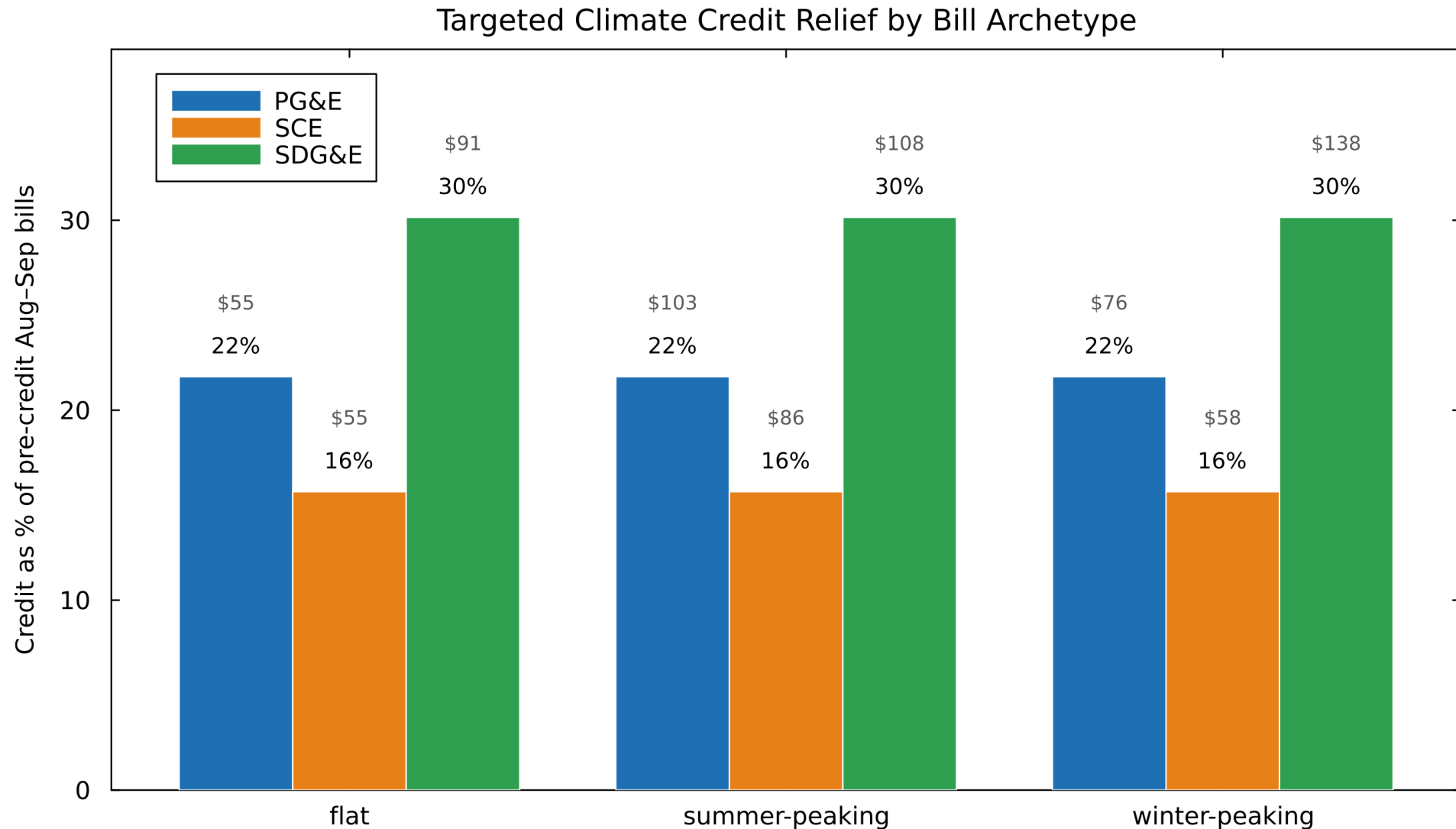
- New this year, and under consideration for future years, the IOUs distribute same-size Climate Credits in August and September
- While this is an improvement for some customers over previous-year distributions, we find that:
 - Same-size distributions still provide outsized support to customers with lower monthly bills
 - Credit distribution does not best support certain classes of customers when they need it most

Under BAU, Equal Credits Deliver Unequal Relief

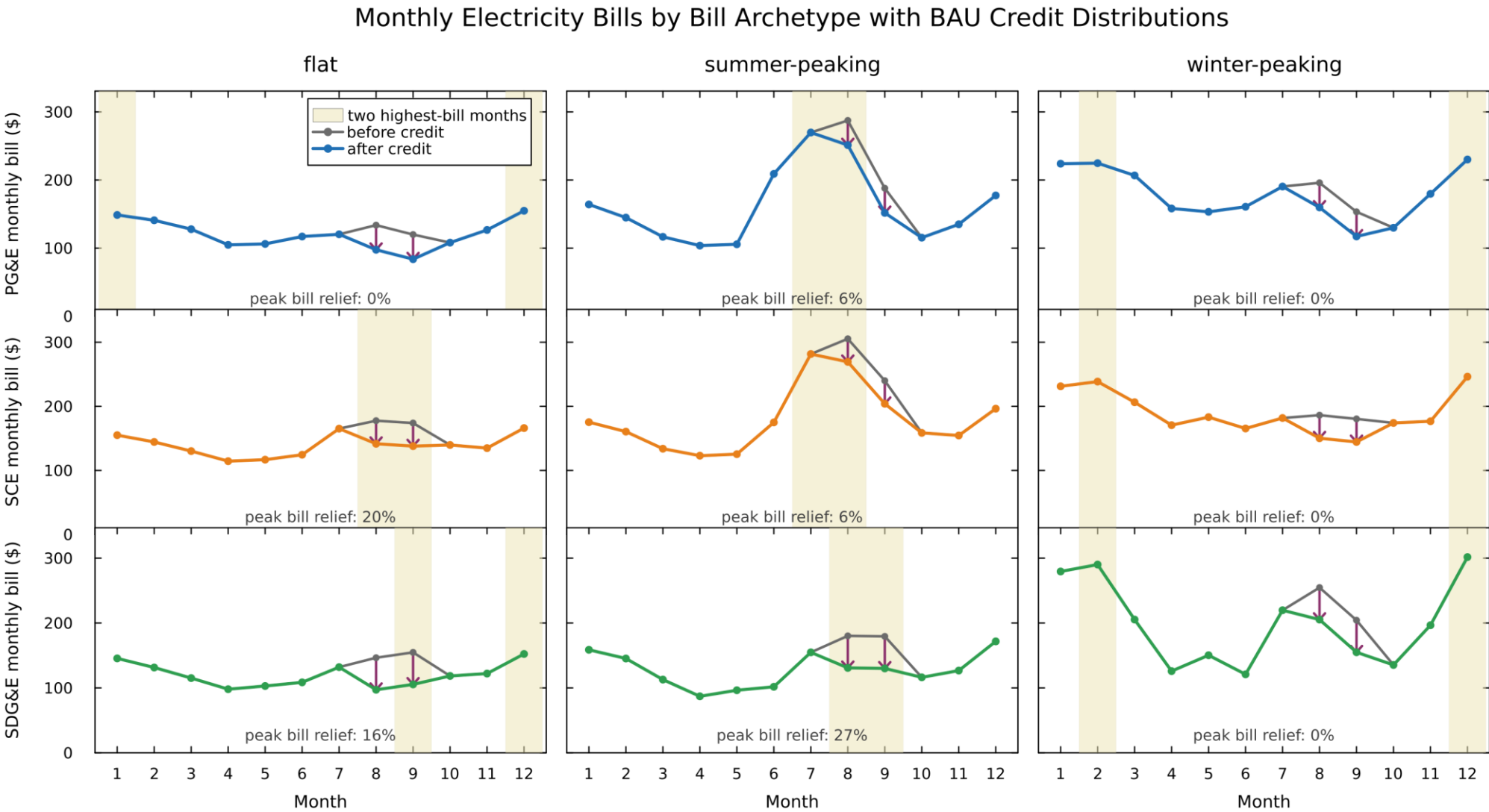


R 25-07-013 ALJ/MS9/vj4 (Attachment A)

Adjusting Credits by Region can Provide Targeted Relief

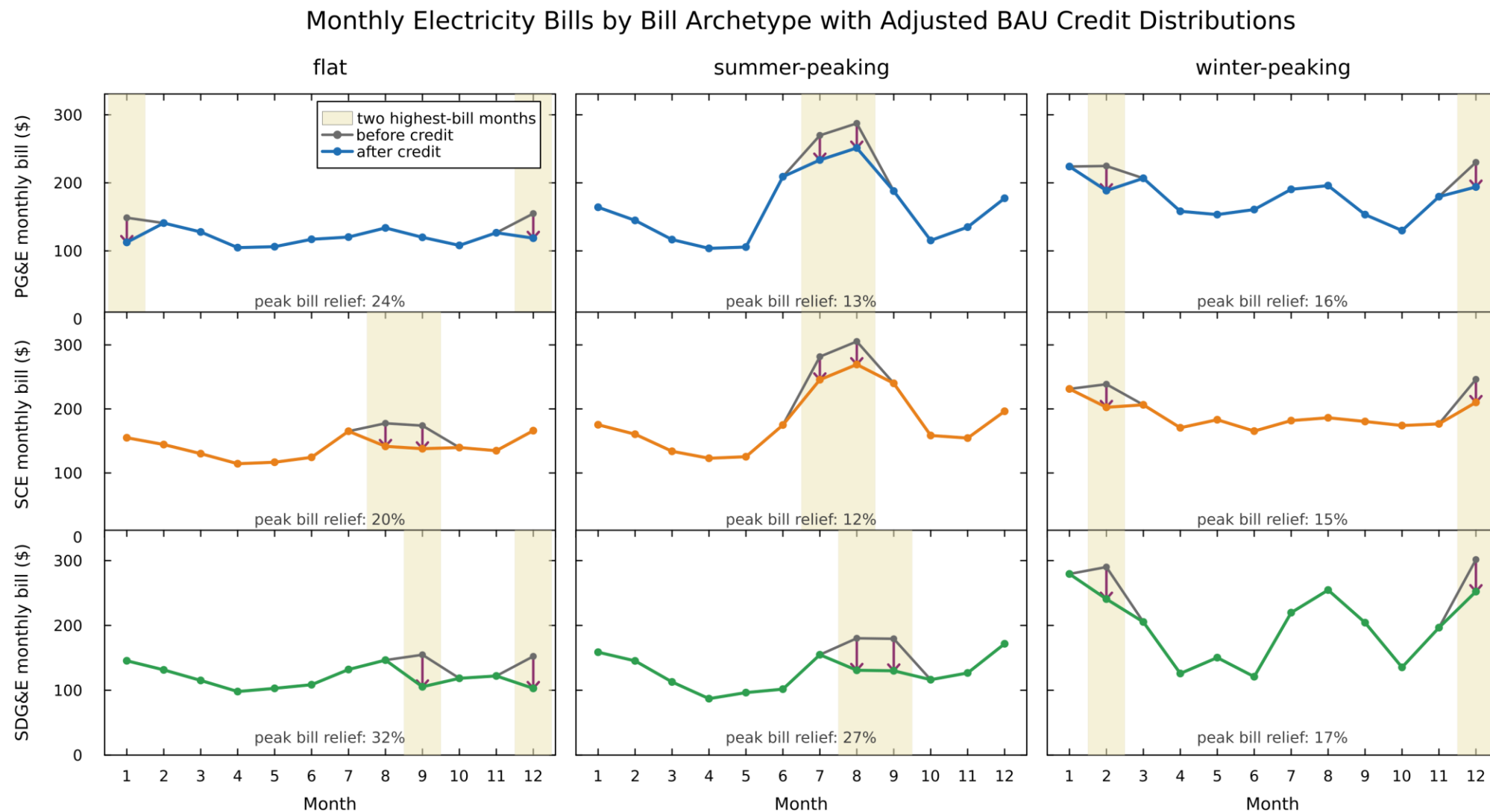


Under BAU, Credits Not Always Provided When Needed Most



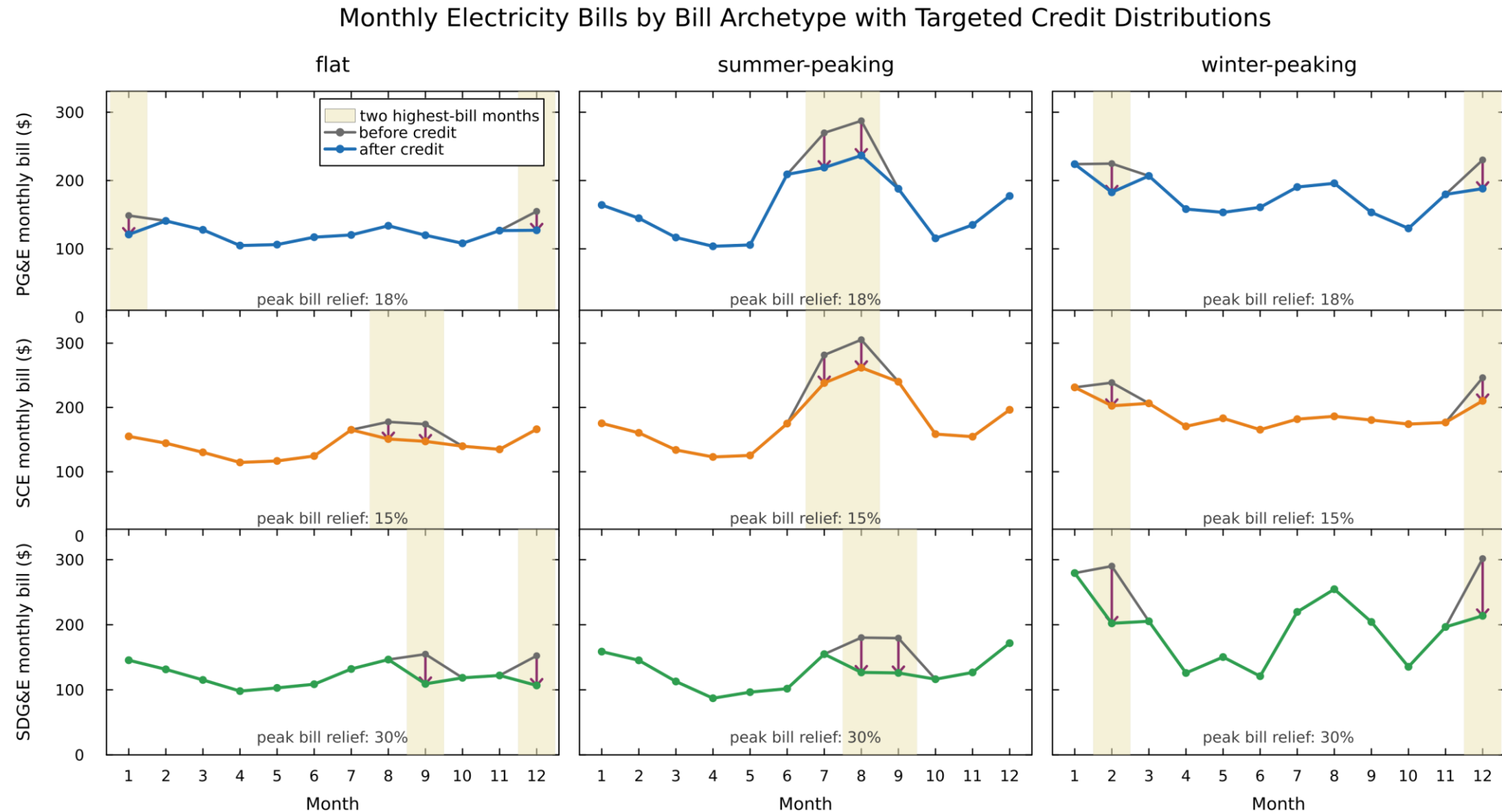
R:25-07-013 ALJ/MS9/vi4 (Attachment A)

Distributing Credits During Highest-Bill Months



R.25-07-013 ALJ/MS9/vj4 (Attachment A)

Timing- and Region-Aware Credit Distribution

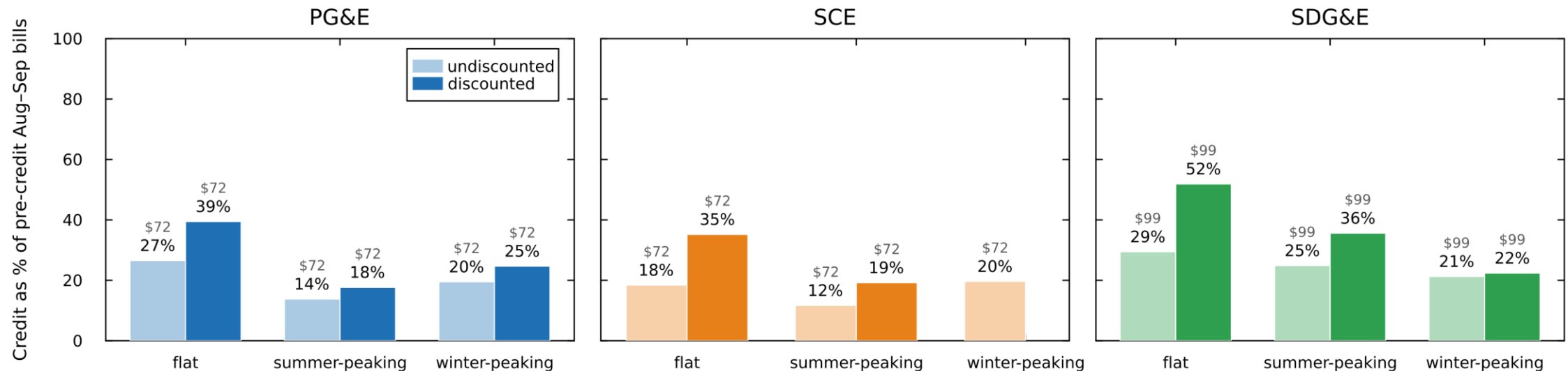


R.25-07-013 ALJ/MS9/vj4 (Attachment A)

How are Customers Enrolled in Discount Programs Affected?

- Due to discounted bills, BAU credits have a greater impact for discounted customers
- Similarities persist with lower, flatter bills experiencing disproportionate relief compared to higher, peakier bills

Climate Credit Relief by Bill Archetype for Undiscounted and Discounted Customers

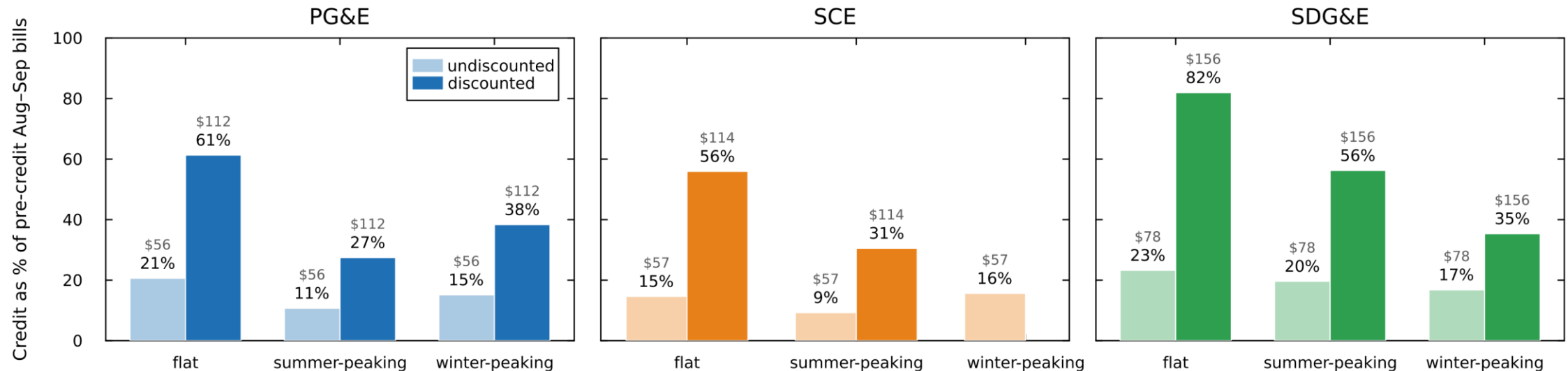


R 25-07-013 ALJ/MS9/vj4 (Attachment A)

Impacts of Increasing Discounted Customer Support

- CARE (26.5%) and FERA (0.7%) comprise a relatively small portion of the three IOUs' customer base
- Doubling the credits for discounted customers produces additional bill reductions of $\geq 9\%$, while reducing those for undiscounted customers by $\leq 6\%$

Climate Credit Relief by Bill Archetype for Undiscounted and Discounted Customers



- Options exist to materially improve outcomes for the most-impacted customers:
 - Credits can be distributed so customers in high-bill regions see greater bill support
 - Credit distribution can be timed to provide customers bill support when they need it most
 - Larger distributions can be provided to lower-income customers without overly impacting the rest of the customer base
- Important to consider how broader process goals are impacted here. For example:
 - Tying distributions to baseline quantities could make it more difficult to message tiered rates, which are built around broad conservation
 - Tying distributions to peak-period pricing could disrupt time-of-use pricing, as peak prices could be similar, if not lower, than off-peak prices
- Maintaining flexibility around this program will be key, especially as prices and consumer load mixes continue to change

Questions?

CPUC Workshop: Methods for Improving the Residential Climate Credit

Kyle Meng and Shradhey Prasad
UCSB emLab and Bren

August 11, 2026

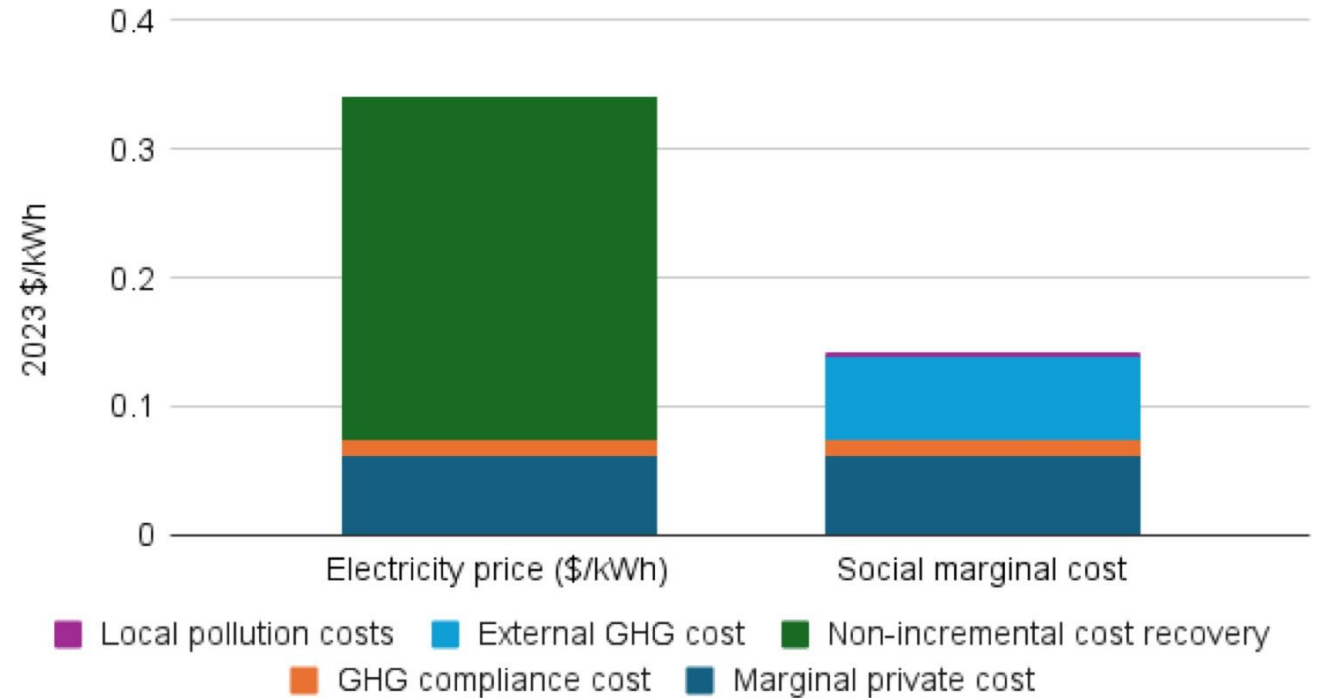


CPUC June 29, 2026 Ruling: Principles

- ① Affordability as a central principle
- ② Electrification should be encouraged
- ③ Changes should be fair
- ④ Simplicity must govern

California's too-high electricity prices are slowing electrification

- California's electricity prices are well above price needed to address climate change (i.e., social marginal cost).
- High non-incremental costs: e.g., fixed capital infrastructure costs, wildfire risk mitigation costs, clean technology incentives, etc.
- On average: **\$0.22/kWh** too high (IEMAC, 2024).
- Lower prices increase electrification:
e.g., EV adoption would be ~8% higher if electricity priced at MSC (Bushnell, Muehlegger, Rapson, 2025).

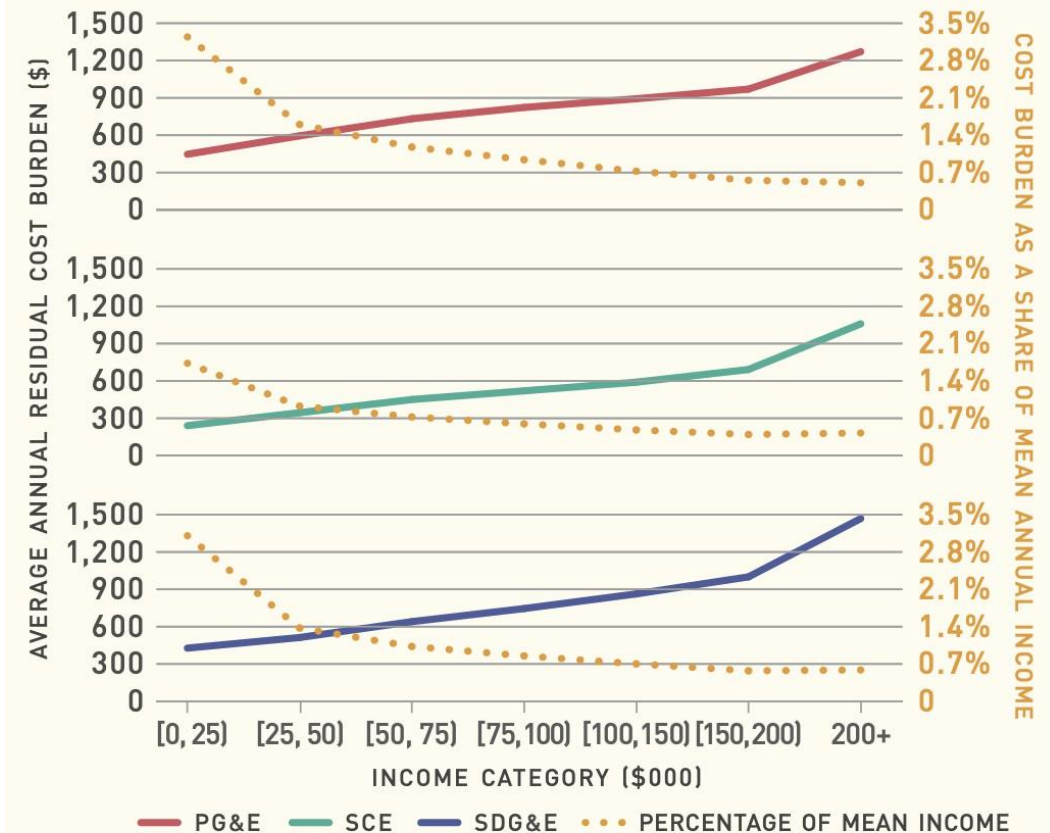


Source: IEMAC, 2024.

Lower-income CA households spend a larger share of income on electricity

- Lower-income CA households spend a larger share of income on electricity bills.
- Implies a uniform subsidy to electricity prices is implicitly progressive: benefits lower-income households disproportionately more than higher-income households.
- Progressivity can be enhanced with explicit differentiation (e.g., CARE households, climate zones, etc.)

FIGURE ES 1 Annual Residual Cost Burden by IOU (2019)



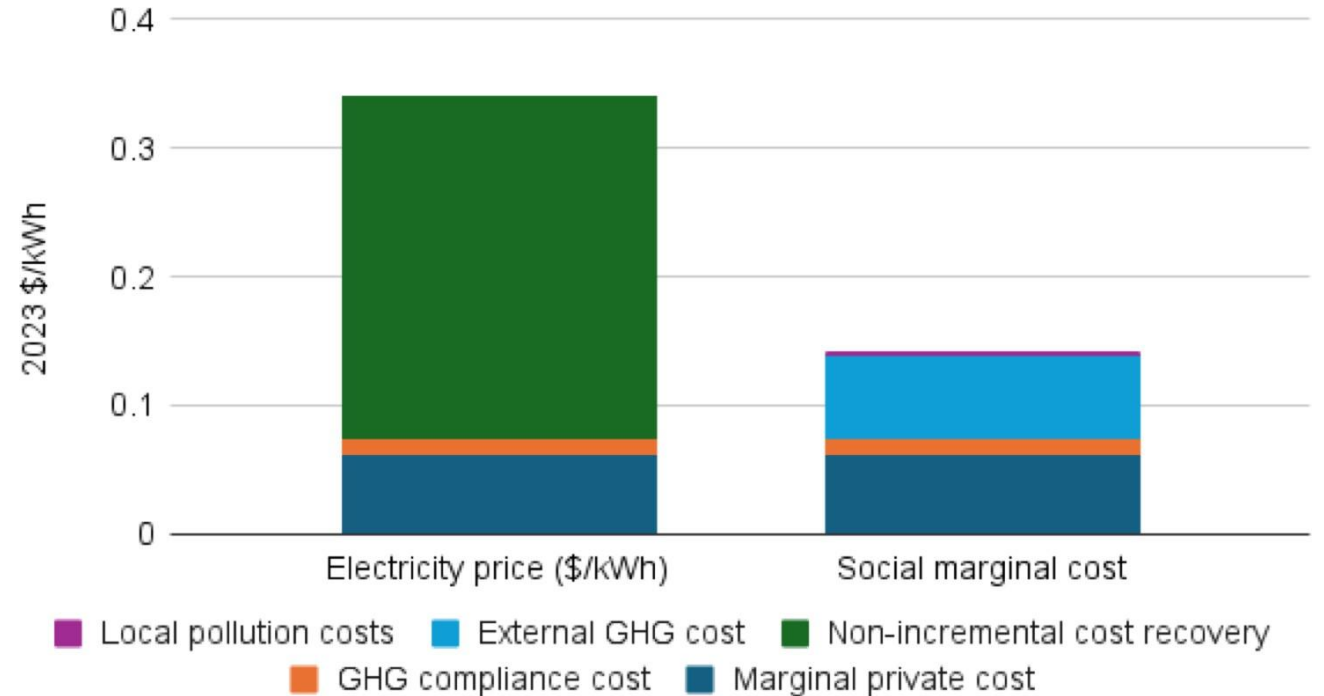
Note: Solid lines show average annual residual cost burden (bill amount above SMC) by income category. Dashed lines divide the residual cost burden by average income in the category.

CPUC 6/29/26 Ruling Principles

R 25-07-013 ALJ/MS9/vj4

(Attachment A)

- ① Affordability as a central principle
- ② Electrification should be encouraged
- ③ Changes should be fair
- ④ Simplicity must govern
- ⑤ Balance affordability with decarbonization
→ Do not lower electricity prices so much that it does not account for climate damage.



Source: IEMAC, 2024.

① **Status quo:** Uniform lump-sum CC to all households

Advantages: Currently implemented. Simple. Implicitly progressive. Disadvantages: Doesn't lower electricity prices.

② **Baseline Usage Tier Approach:** Tiered credits by past electricity consumption

Advantages: Implicitly progressive.

Disadvantages: Doesn't explicitly lower electricity prices. More complicated as households need to determine/forecast which tier they are in.

③ **Climate Zone Tier Approach:** Tiered credits by climate zone and CARE status

Advantages: Implicitly (by zone) and explicitly (by CARE status) progressive.

Disadvantages: Doesn't explicitly lower electricity prices.

4 **Purely Volumetric Approach:** Uniform reduction in electricity price.

Advantages: Lowers electricity prices. Does not require calculating baseline consumption. Easier to communicate as a per kWh reduction for every kWh of electricity usage. Implicitly progressive.

Disadvantages: May lower electricity prices below social marginal cost (i.e., lower too much).



Purely Volumetric Approach + price floor: Volumetric credit but with a subsidy limit so that electricity prices do not fall below the social marginal cost floor.

Advantages: Volumetric approach advantages + balancing affordability with decarbonization.

Evaluating the proposals against the Ruling principles

	Affordability	Encourages electrification	Fair	Simple	Balances electrification & decarb.
1. Status quo (lump-sum)	✓	X	✓	✓	✓
2. Baseline usage tier	✓	X	✓	X	X
3. Climate zone tier	✓	X	✓	✓	X
4. Purely volumetric	✓	✓	✓	✓	X
5. Purely volumetric+price floor	✓	✓	✓	✓	✓

emLab analysis on volumetric CC potential rate reduction

Question:

How much can a volumetric electricity climate credit reduce July-October retail electricity prices?

Methods and Data:

- Calculate EDU's percent change in electricity prices from a July-October volumetric credit given
 - ① Recent electricity prices and consumption,
 - ② Number and price of consigned allowances.
- Short-term price elasticity of demand from Buchsbaum (2022).
- Scenarios:
 - ① Only electricity CC (no natural gas switching).
 - ② Permit allocations under current regulations vs. proposed amendments.
 - ③ Current \$33/tCO₂e vs. \$40/tCO₂e and \$50/tCO₂e carbon prices.

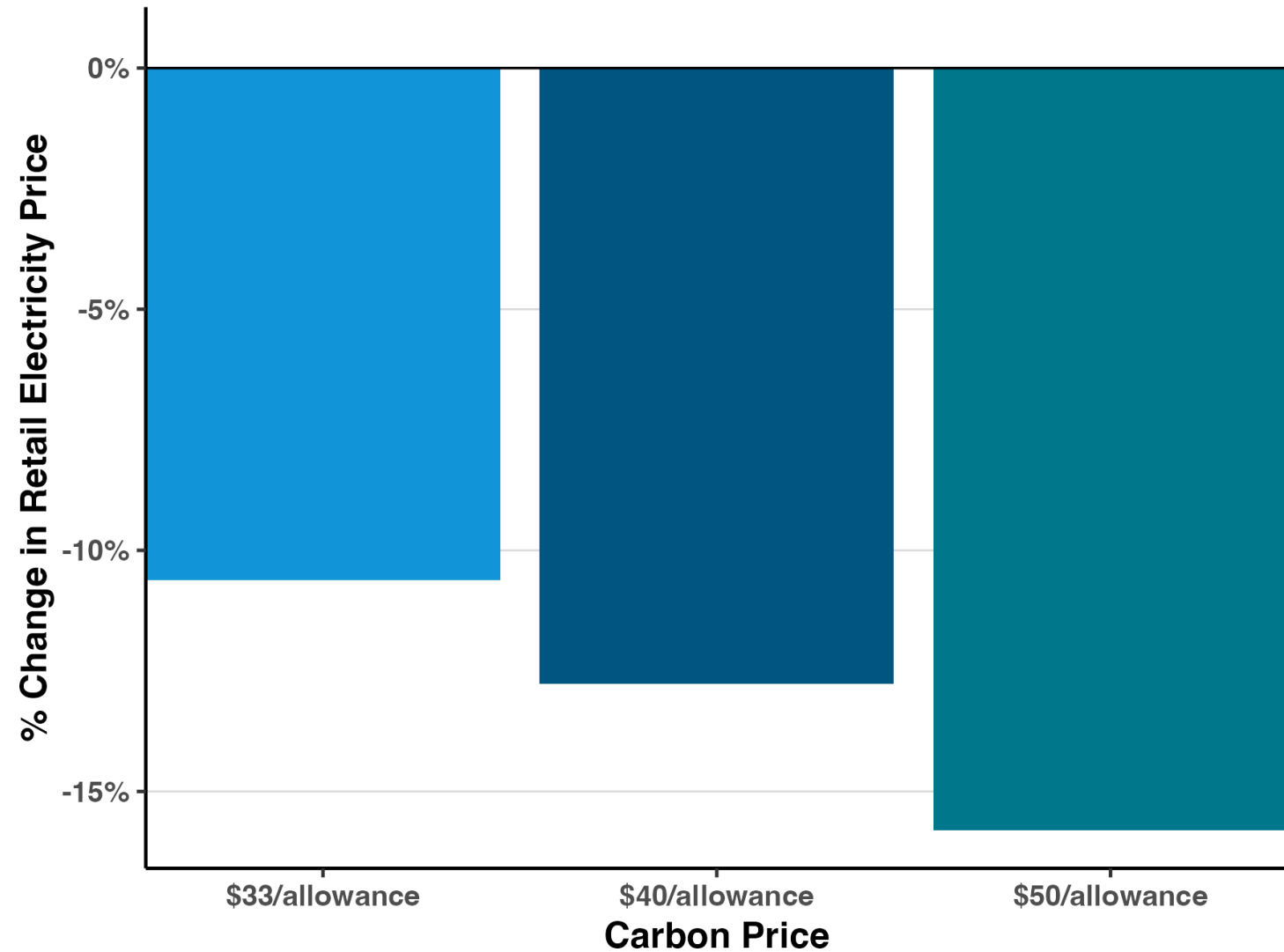
Volumetric credit results: PG&E

Retail electricity price changes:

- \$33 carbon price: -11% (-\$0.04/kWh)
- \$40 carbon price: -13% (-\$0.05/kWh)
- \$50 carbon price: -16% (-\$0.06/kWh)

PG&E : Summer Retail Price Change

Electricity Climate Credit allowances only



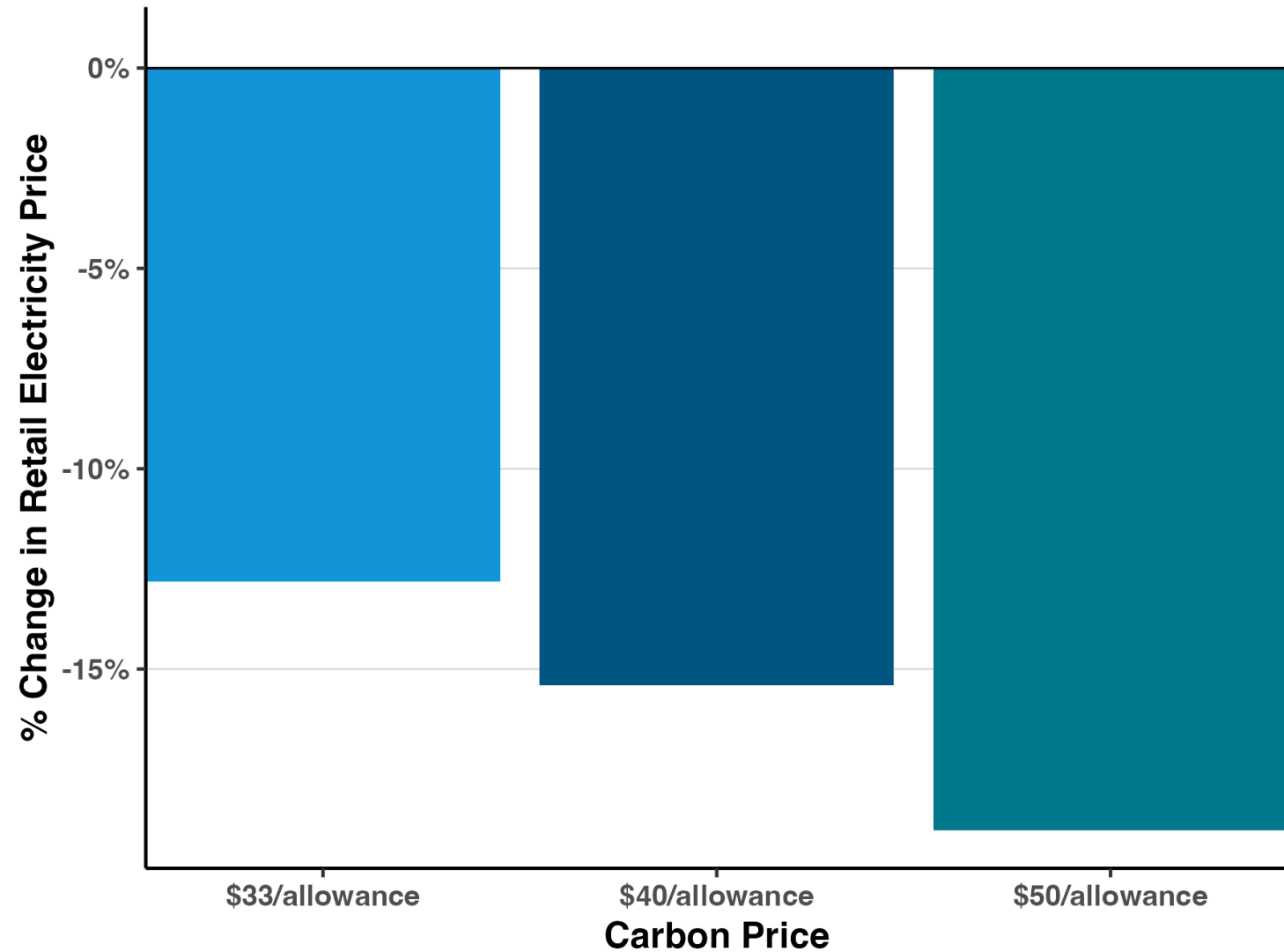
Volumetric credit results: SCE

Retail electricity price changes:

- \$33 carbon price: -13% (-\$0.03/kWh)
- \$40 carbon price: -15% (-\$0.04/kWh)
- \$50 carbon price: -19% (-\$0.05/kWh)

SCE : Summer Retail Price Change

Electricity Climate Credit allowances only



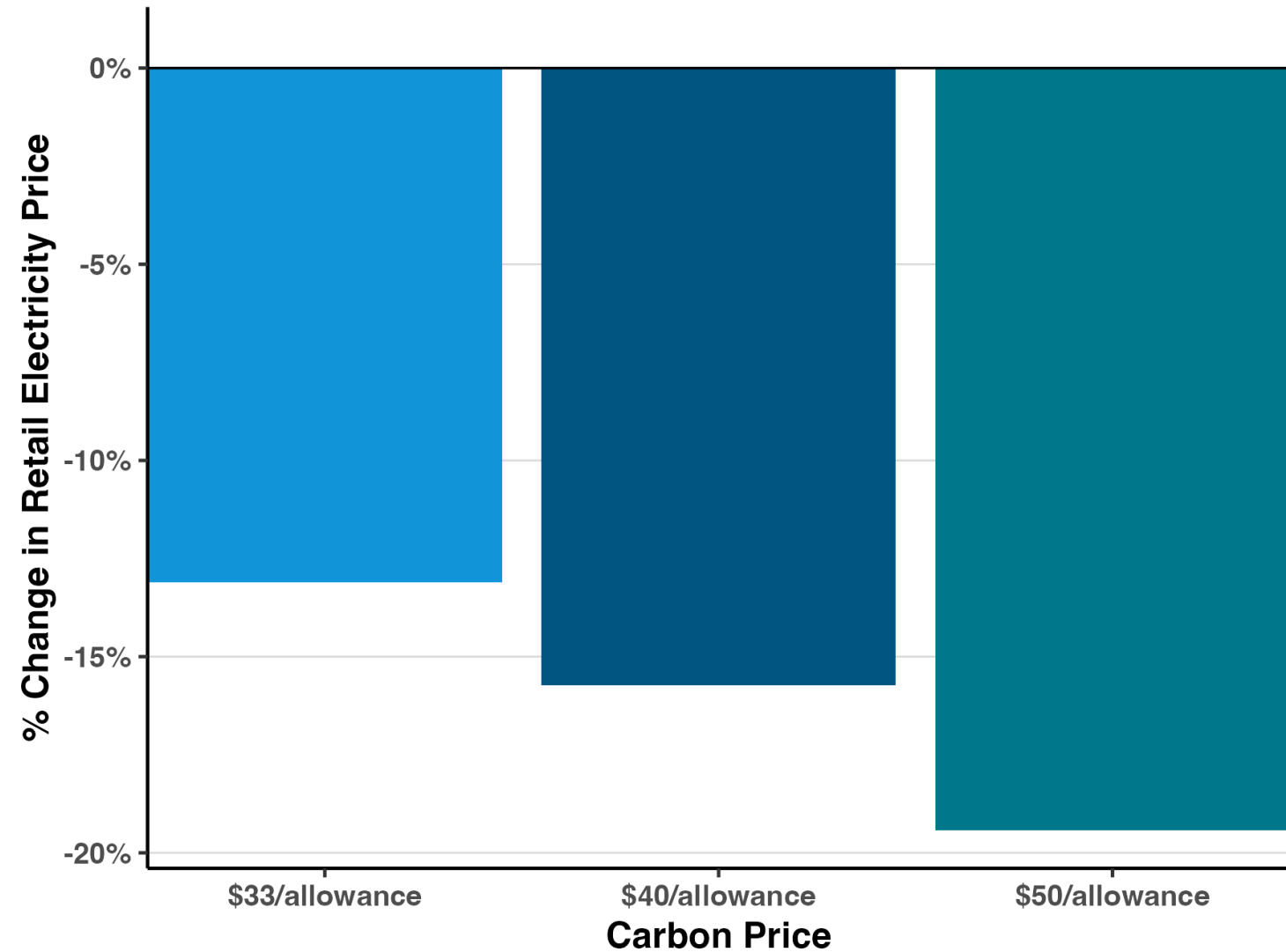
Volumetric credit results: SDG&E

Retail electricity price changes:

- \$33 carbon price: -13% (-\$0.04/kWh)
- \$40 carbon price: -16% (-\$0.05/kWh)
- \$50 carbon price: -19% (-\$0.07/kWh)

SDG&E : Summer Retail Price Change

Electricity Climate Credit allowances only



Conclusion

Today's too-high electricity prices provide an opportunity to revamp the California Climate Credit to meet affordability, electrification, fairness, and simplicity principles.

A volumetric electricity climate credit (+ a price floor) can meet these principles.

Volumetric electricity climate credit can lower summer retail electricity prices by **11% to 13%**.

In no scenario do volumetric credits lower prices below social marginal cost, though still important to have safeguards to ensure rates stay above social marginal cost.

Need to consider a buffer in case the total value of volumetric credits exceeds the value of consigned allowances (e.g., from uncertainty in electricity demand or estimated demand elasticity).

Thank you.

emlab.ucsb.edu



Party Proposals

Party Proposals Order

- CalCCA - Kevin Johnston
- California Environmental Justice Alliance - Usama Faheem
- Other Interested Parties

California Community Choice Association Climate Credit Distribution Proposals

R.25-07-013

Phase 1B Workshop

August 11, 2026

Overview

- Climate Credit distribution proposal evaluation considerations
- CalCCA recommendation to retain the current Climate Credit distribution methodology Alternative universal credit plus CARE multiplier proposal
- Eligibility options other than CARE
- CalCCA recommendations

Any Proposed Change to the Climate Credit Should Avoid Negative Outcomes

✓ A Proposal Should:

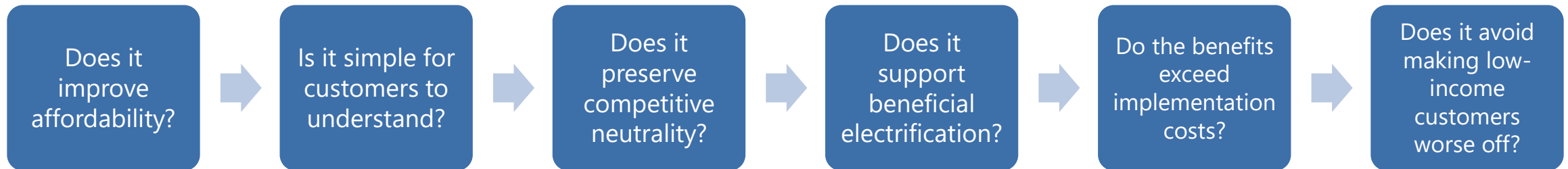
- Advance affordability
- Be simple and understandable
- Be competitively neutral
- Support beneficial electrification
- Have low implementation costs
- Be predictable for customers
- Maximize dollars returned to customers
- Protect low-income customers

✗ A Proposal Should Not:

- Create winners and losers
- Be difficult to explain
- Have different treatment across LSEs
- Reward electricity consumption
- Have expensive billing changes
- Prevent customers from estimating their credit
- Result in higher administration costs
- Leave vulnerable customers worse off

Status Quo Alternatives Must Be Evaluated to Ensure Benefits Outweigh Costs and Complexity

- Every proposal should answer "Yes" to each question.



- If any answer is "No," the Commission should retain the existing methodology.

The Existing Climate Credit Distribution Should be Retained

Why?

- Universal affordability benefit
- Predictable and understandable
- Lowest implementation costs
- Maximizes dollars returned to customers
- Avoids creating winners and losers
- Consistent with existing utility billing systems

If the Commission Requires Change...

Maintain a universal Climate Credit *PLUS* provide an adder for CARE

- Existing eligibility
- Already verified
- Simple implementation
- Easy customer messaging
- Better affordability targeting
- Preserves a meaningful credit for everyone with a boost to identified low-income customers

Any CARE Multiplier Should Balance Benefits with Customer Impacts

Multiplier	Benefits	Impacts
1.2×	Minimal disruption	Smaller affordability gain
1.5×	Balanced increase	Moderate redistribution
2.0×	Greatest affordability benefit	Larger redistribution and customer impacts

Eligibility Options Other Than CARE May Provide Broader Coverage But Add Verification Complexity

Option	Strengths	Concerns
CARE	Existing, verified, simple	Does not reach every customer
CARE + FERA	Broader coverage	Slightly more complex
CARE + FERA + Deed-Restricted Affordable Housing	Best affordability targeting	Additional implementation review needed
New income verification	Better theoretical targeting	Significant complexity— not recommended

CalCCA Recommendations

- ✓ Retain the current universal Climate Credit
- ✓ As an alternative, adopt a universal credit plus a CARE multiplier benefit that balances benefits with customer impacts
 - If eligibility options in addition to CARE are adopted (FERA, Deed Restricted Affordability Housing, new income verification), ensure broader coverage is balanced against increased verification complexity

C L I M A T E

C R E D I T

R E D E S I G N

Rulemaking to Improve the California Climate Credit (R.25-07-013)

PROPOSAL BY:

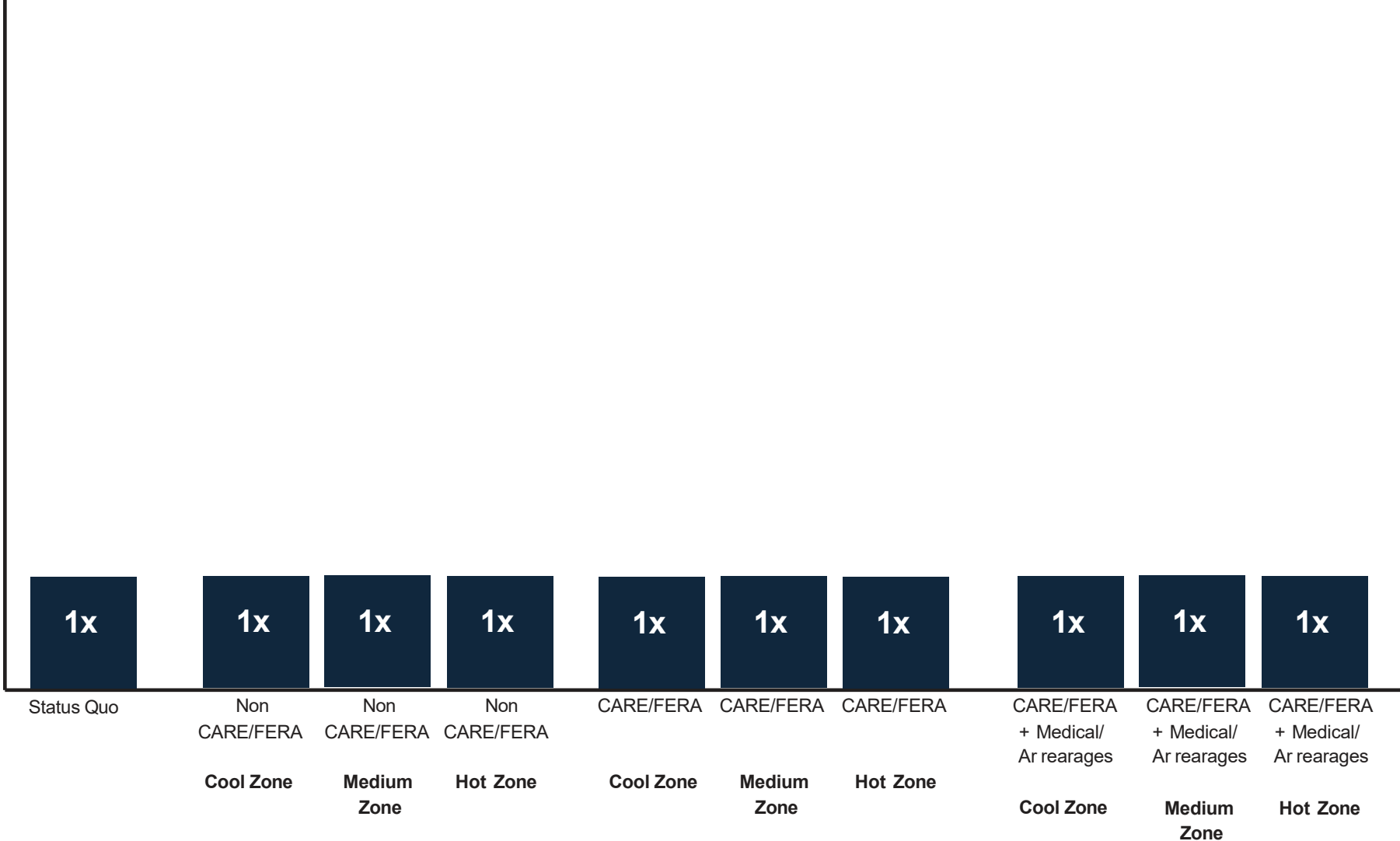
EJ Parties: California Environmental Justice Alliance (CEJA), Central California Environmental Justice Network (CCEJN), Leadership Counsel for Justice and Accountability (LCJA), and Central California Asthma Collaborative (CCAC)

O N T E X T

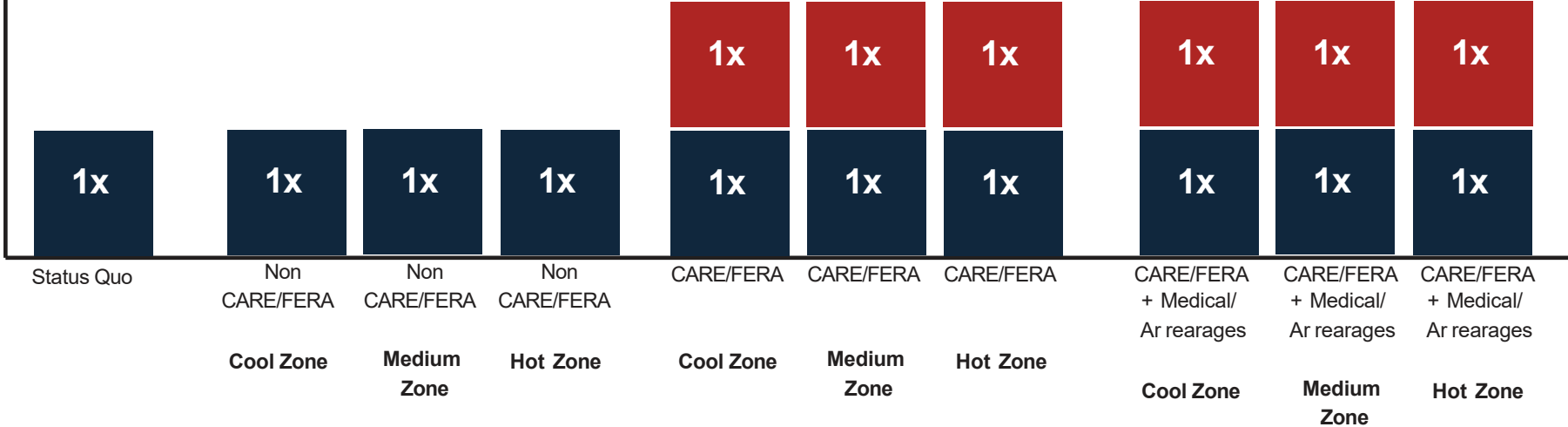
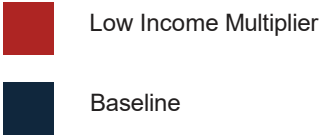
- Affordability and fairness through an **Equity Lens**:
Prohibitive energy costs put lives and health at risk for California’s most energy-burdened communities
- Modifying **Commissioner’s Concept 2** to “specifically target small numbers of highly-vulnerable customers whose costs and affordability needs are greatest (for example, a medical baseline, low-income customer in a disadvantaged community in the hottest climate zone).”

- **Phase 1B Procedural Ruling at 10.**

M E T H O D O L O G Y



M E T H O D O L O G Y



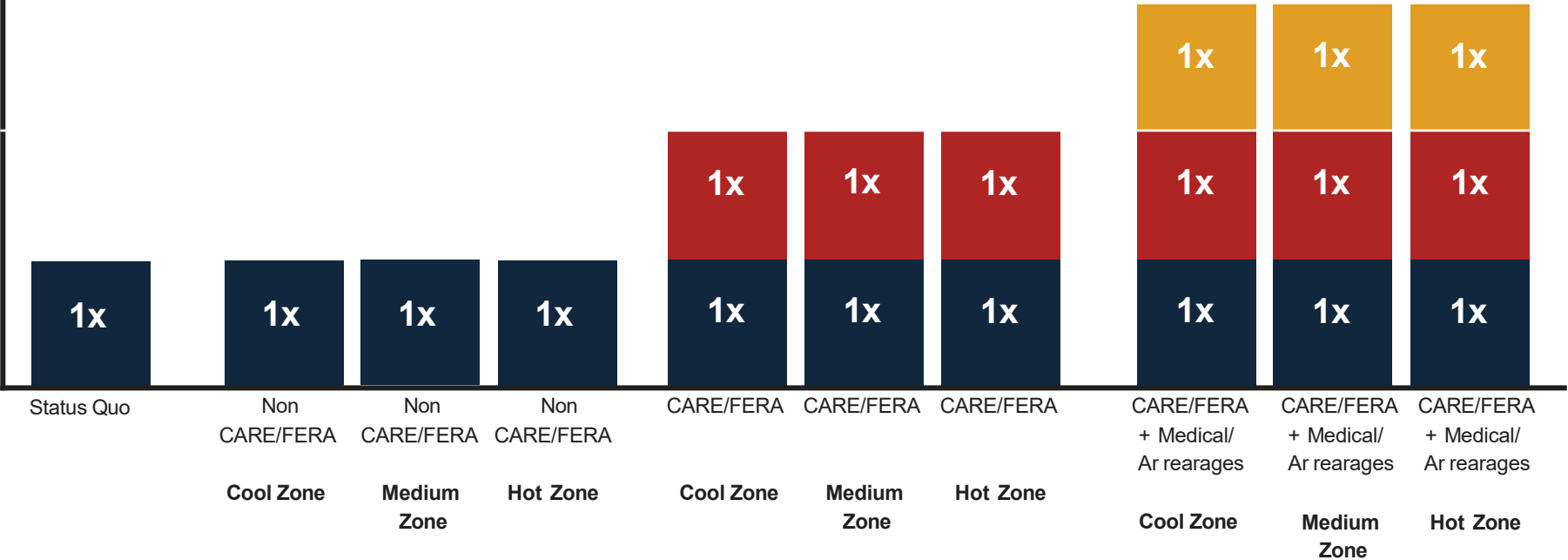
Tiered Design

This approach uses different multipliers to add layers of support for communities as per need.

Pros: Adds higher level of specificity by addressing multiple vulnerabilities and targetting assistance. Outcomes are more equitable and address all elements mentioned in ruling with a focus on affordability.

M E T H O D O L O G Y

- Medical Baseline/Arrearage Multiplier
- Low Income Multiplier
- Baseline

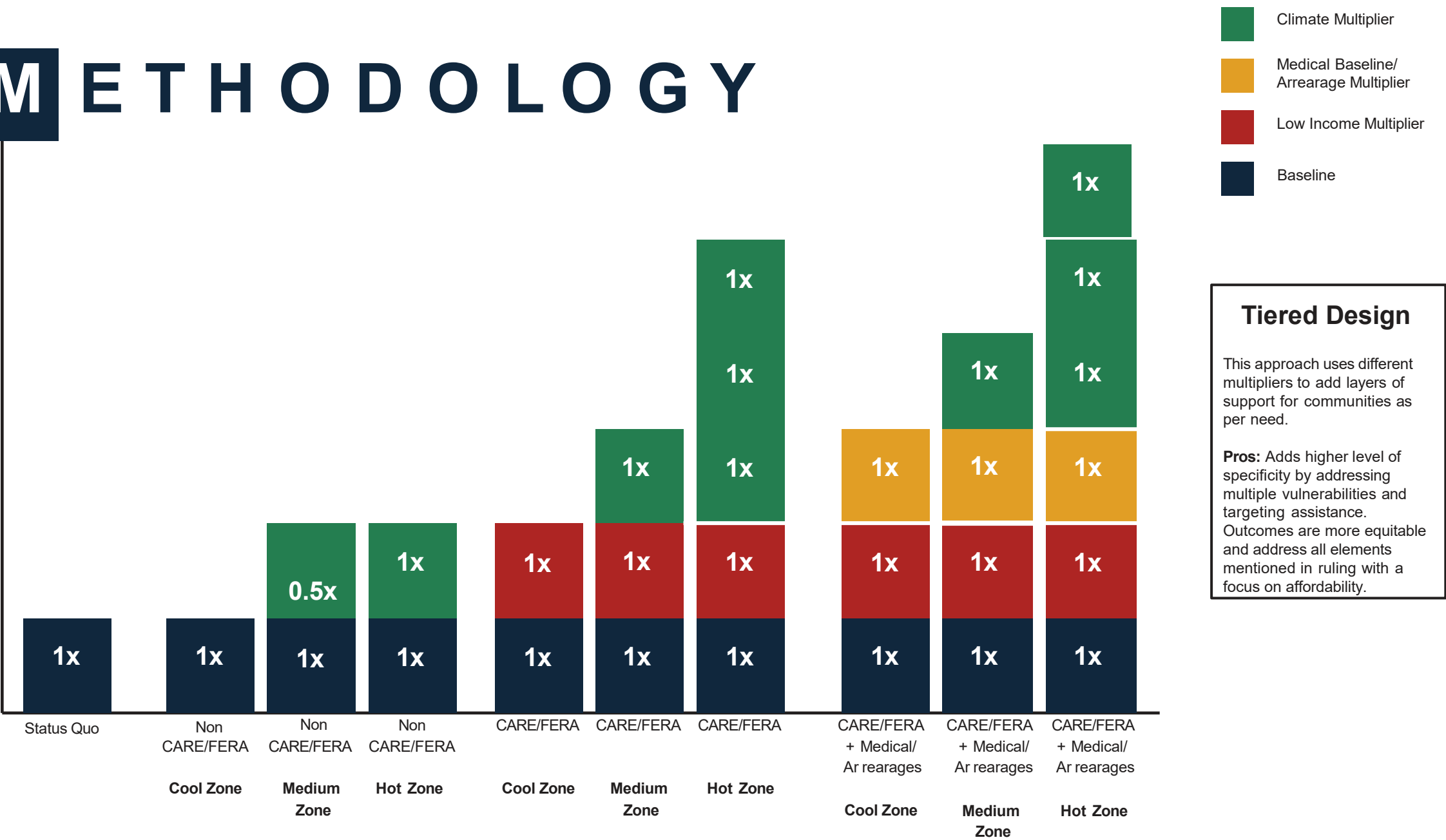


Tiered Design

This approach uses different multipliers to add layers of support for communities as per need.

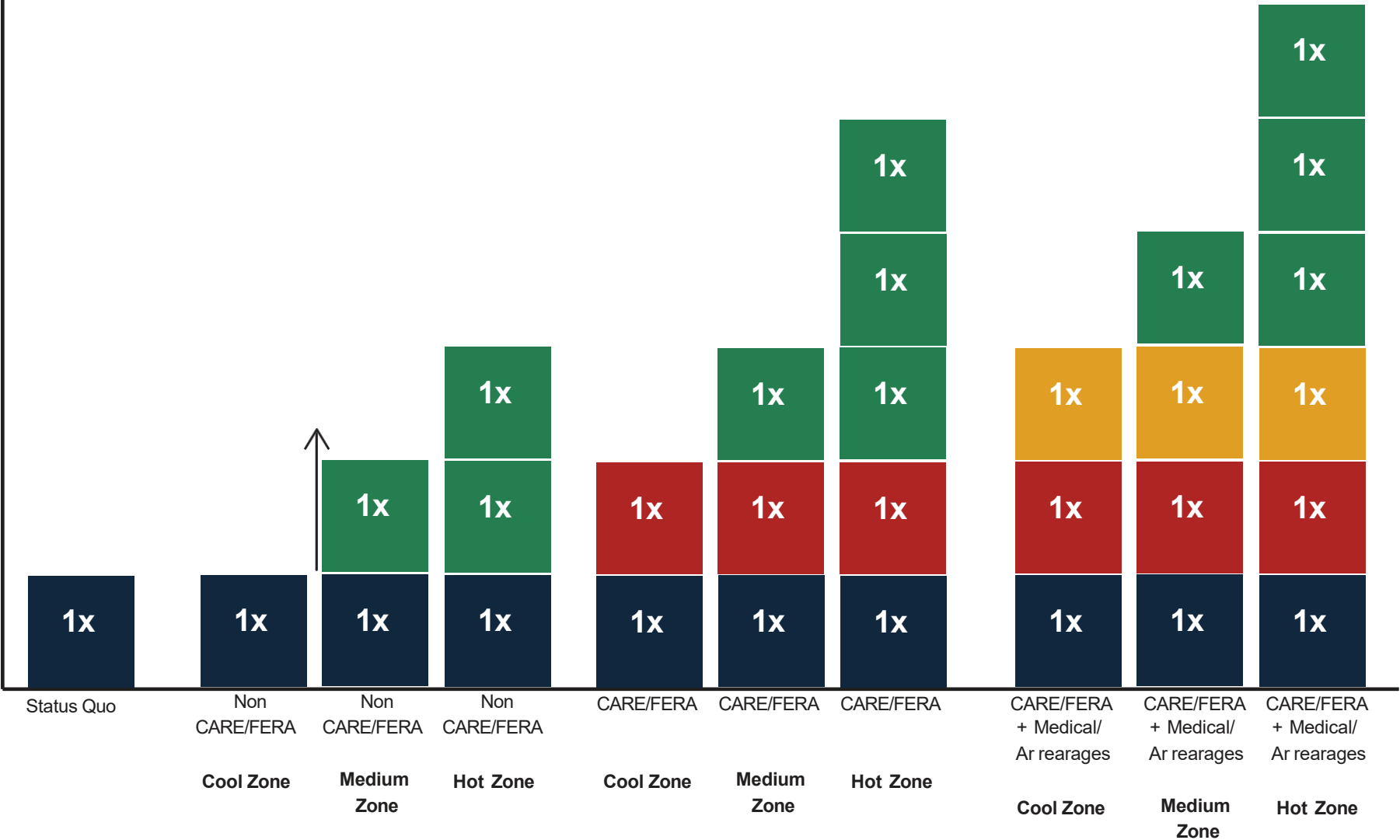
Pros: Adds higher level of specificity by addressing multiple vulnerabilities and targeting assistance. Outcomes are more equitable and address all elements mentioned in ruling with a focus on affordability.

M E T H O D O L O G Y



M E T H O D O L O G Y

- Climate Multiplier
- Medical Baseline/Arrearage Multiplier
- Low Income Multiplier
- Baseline



Tiered Design

This approach uses different multipliers to add layers of support for communities as per need.

Pros: Adds higher level of specificity by addressing multiple vulnerabilities and targeting assistance. Outcomes are more equitable and address all elements mentioned in ruling with a focus on affordability.

D **A T A**

In order to bring about an accurate proposal, we require further data inputs regarding:

- A. CARE/FERA disaggregated across major factors including:**
 - **Arrearages**
 - **Medical Baseline**
- B. Climate Zone data disaggregated and defined across all key variables**
- C. Clearly formatted and cross-sectional data**

DATA EXAMPLE

SECTION 1: CREDIT POOL

Total residential customers (all rate schedules)	4,816,901	# customers
Period / as-of date for customer count	2026 ERRA Forecast/A.25-05-008	date / period
Total annual credit pool (2 distributions combined)	\$ 346,816,872	\$

SECTION 2: RESIDENTIAL CUSTOMER COUNTS BY SEGMENT (2026 or Most Recent)

Hot Zone — CARE customers	582,789	# customers
Hot Zone — FERA customers	18,642	# customers
Hot Zone — Non-CARE/FERA customers	1,027,314	# customers
Cool Zone — CARE customers	483,379	# customers
Cool Zone — FERA customers	17,197	# customers
Cool Zone — Non-CARE/FERA customers	1,566,632	# customers
Period / as-of date for climate zone data above	Dec 31, 2025 year-end	date / period

Note: SCE has 3 climate zones, cool, moderate and hot zones. Hot and cool zone numbers are |

SECTION 3: DISADVANTAGED COMMUNITY (DAC) CUSTOMERS

Total residential customers in DACs	796,926	# customers
Customers in DACs — CARE customers	380,684	# customers
Customers in DACs — FERA customers	10,351	# customers

SECTION 4: RESIDENTIAL ARREARAGE DATA (Calendar Year 2025 or Most Recent)

Total residential accounts in arrears	833,823	# accounts
Total arrearage balance (all residential)	\$690,922,140	\$
Arrearage balance — CARE customers	\$336,506,922	\$
Arrearage balance — FERA customers	\$12,049,143	\$
Arrearage balance — Non-CARE/FERA customers	\$342,366,075	\$
Arrearage balance — Hot zone customers (all programs)	\$401,420,207	\$
Arrearage balance — Cool zone customers (all programs)	\$173,832,216	\$
Arrearage balance — DAC customers (all programs)	\$204,390,113	\$
% of CARE customers with any arrearage	27.50%	%

* For illustration purposes only. Moderate zone data and other denominators to be requested

Questions?



Next Steps in the Proceeding: Formal Proposal Requirements

Justin Galle, Energy Advisor to President John Reynolds

How to Participate in the Proceeding

- Staff will use the mailing list you received this Notice for upcoming follow-up;
 - If we don't have your email, sign-up at the check-in table
- The full docket card for each proceeding can be accessed through the [CPUC docket card search tool](#).
 - Enter the proceeding number (R2507013) without any periods or dashes to search.
 - Final decisions can also be located on the CPUC website using this [decision search tool](#).
- The CPUC's [Public Advisor's Office](#) provides procedural information and advice to individuals and groups who want to formally participate in proceedings.

Draft Proposal Guidance

A forthcoming ALJ ruling will provide direction for parties' proposals – an initial list is below and we are seeking feedback.

Draft list of elements the ALJ ruling could require or request: [cont'd next slide]

- **Summary of the proposed change.**
 - Description of how the proposal will change the methodology of calculating the credit; the eligibility for the credit; distribution timing
- **Implementation estimate.**
 - Necessary billing process and accounting changes or other changes utilities will need to make to implement the proposal; time, cost, other considerations
 - Summary of proposed outreach and messaging changes.
- **Outreach considerations.**
 - How should the change be explained to customers? What changes from the communications status quo will be made?

Draft Proposal Guidance cont. [2 of 3]

Estimated customer impacts of the proposal

- Estimated credit amounts for specific subset of customers
- Estimated bill impacts
- CARE/Non-CARE; by climate zone; usage?
 - *What and how many customer estimates should be provided?*
 - *Should estimates be required? Or provided later by the utilities?*
 - *If estimates are required, what data set/data tool guidance is needed to ensure proposals can be compared apples-to-apples?*

Draft Proposal Guidance [3 of 3]

- **Alignment with assigned Commissioner's priorities**
 - Specify how proposal addresses each priority from the guidance ruling
 - Address whether proposal satisfies additional priorities or principles
- **Justification for additional option**
 - Why is this proposal necessary? What does it provide or accomplish that is not addressed by the status quo or commissioner's concepts?
- **Other**
 - What values or customer groups does the proposal seek to prioritize?
 - How does the proposal address environmental and social justice issues?
 - How does the proposal address other considerations, such as equity among customers; variation in cost of living in different areas

Closing Remarks

For more information:

- **Visit:** <https://www.cpuc.ca.gov/climatecredit/>
- **Email:** Adam Banasiak at: Adam.Banasiak@cpuc.ca.gov
ADK@cpuc.ca.gov





California Public Utilities Commission