

Data Notes for Blog Post May 13, 2024:
Reality Checking California's Income-Graduated Fixed Charge
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May 13, 2024

The data used for the calculations in this blog post is based on the same RASS dataset as used in “Energy Hogs and Energy Angels: What Does Residential Electricity Usage Really Tell Us About Profligate Consumption?”, Energy Institute at Haas Working Paper #341, revised January 2024. Descriptions of nearly all variables are in the appendix to that paper. However, additional assumptions and adjustments were made for the calculations for this blog post. The main assumption made was that the volumetric discount for CARE customers would be 65% of the volumetric discount for non-CARE customers. Two adjustments were made.

1. The first adjustment deals with the fact that the RASS appears to oversample or overweight CARE customers somewhat. That is, the aggregate weights for CARE customers would have them consume a larger share of the total residential kWh than we found in the residential billing data for 2019 that were used in “Paying for Electricity in California: How Residential Rate Design Impacts Equity and Electrification”, Energy Institute at Haas Working Paper #330, September 2022. For each utility, the share of all residential kWh consumed by customers on CARE was calculated from the residential billing data and all weights on CARE customers in the RASS were proportionally adjusted downward so that the weighted share of CARE customers in the RASS was the same as in the complete residential billing data. For all three utilities, the share of (weighted) consumption by CARE customers in RASS was 3-4 percentage points higher than in the billing data.

2. In order to avoid any bias from a different distribution of usage in the RASS than in the complete billing data, once the prescribed fixed charges were adopted—\$24.15 and \$6—the volumetric discount was then calculated for each utility in order to make the change overall revenue neutral in the (weighted) RASS. This made almost no difference at all for PG&E and SCE, but resulted in a volumetric discount for SDG&E of \$0.059 rather than the \$0.068 projected in the proposed decision.

While I believe that both of these adjustments make the analysis more reliable, neither of them changes any of the conclusions, and the figures shown are very similar without the adjustments.