

Docket No.: R.22-07-005
Exhibit No.: CEJA-01
Date: 4/7/2023
Witnesses: Tyson Siegele
Commissioner: President Alice Reynolds
ALJ: Stephanie Wang

**PREPARED TRACK A OPENING TESTIMONY OF TYSON SIEGELE ON BEHALF OF THE
CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE IN R.23-07-005, THE ORDER
INSTITUTING RULEMAKING TO ADVANCE DEMAND FLEXIBILITY THROUGH
ELECTRIC RATES**

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Attachment 1 – Resume of Tyson Siegele

Attachment 2 –E3 income-graduated fixed charge tool as used to calculate the fixed charge based on the revenue requirement components that represent the fixed costs of the IOUs

1 verification method for assigning customers into the appropriate fixed charge tier. I recommend
2 this proposal for adoption by the Commission.

3 **Q. Please summarize your proposal.**

4 The key features of the Assessment Proposal are as follows:

- 5 • **Fixed Charge Weighting by Tier:** The proposal sets the weighting of the tiers of the
6 fixed charge using the progressive structure of the California personal income tax.
- 7 • **Customer Income Determination:** The proposal establishes the income of
8 customers through a multi-step process:
 - 9 ○ First, all CARE and FERA customers default into the lowest tier. Any
10 customers who receive other public benefits because of low-income status
11 shall also be placed into the lowest tier.¹ The fixed charge for the bottom tier
12 is \$0.
 - 13 ○ Second, all non-CARE and non-FERA customers will be asked to self-certify
14 the amount of income they earn.
 - 15 ○ Third, all self-certifications will be spot-checked through a secondary income
16 verification process that uses the assessed value of the service address as a
17 proxy for income. This process is described in detail later in my testimony.
 - 18 ○ Fourth, all customers that were asked to self-certify and did not self-certify
19 would be assigned an income bracket based on the assessed value of the
20 service address.
 - 21 ○ Fifth, if there is a mismatch between the property value proxy and the self-
22 certification level in the spot-check, households shall be given notice and an
23 opportunity to provide additional documentation supporting their self-
24 certification level. If the customer fails to provide the required documentation,

¹ R.22-07-005, Opening Brief of Sierra Club and the California Environmental Justice Alliance (“SC and CEJA Brief”) (January 23, 2023), p. 10, (“A “low-income ratepayer” should be defined as a ratepayer whose income is below 80 percent of the area median income (“AMI”) or who qualifies for any applicable California or local income-based benefits program such as CARE/Family Electric Rate Assistance Program (“FERA”) and CalFRESH, and/or federal income-based programs like the Special Supplemental Nutrition Program for Women, Infants, and Children (“WIC”), and Section 8 housing. AMI is an important metric to address usage variations among IOUs’ baseline territories.”), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M501/K533/501533647.PDF>.

1 they will remain in the income tier corresponding to the assessed property
2 value of the service address.

- 3 ○ Finally, during the secondary check of customer income that uses the assessed
4 property value of the service address, renters at multi-unit dwellings will
5 instead be assigned the median income of the census tract unless the multi-
6 unit dwelling is located in a disadvantaged community in which case the
7 customer will be placed in the lowest income bracket.

- 8 • **Electrification discount:** Any utility customer that only receives electric service at a
9 service address will qualify for a discount to the fixed charge (electrification means
10 the customer's address is fully electrified and has disconnected from the gas grid).

11
12 The remaining components of the proposal are as follows:

- 13 • **Income brackets:** 10; based on even divisions of California's personal property tax
14 liability
- 15 • **Customer:** All household members²
- 16 • **Cost Components in the Fixed Charge:** non-bypassable charges, CARE-exempt
17 charges
- 18 • **Cost Components excluded from the Fixed Charge:** transmission, distribution,
19 generation
- 20 • **CARE, FERA fixed charge:** none
- 21 • **Low-income customers' fixed charge:** none
- 22 • **Implementation timeline:** short to medium time required for implementation - this is
23 due to the use of self-certification and public data to determine each customer's fixed
24 charge income bracket
- 25 • **Rates to include fixed charge:** the fixed charge shall be applied to all rates to ensure that
26 all customers pay the same income-graduated fixed charge. The fixed charge will replace
27 all fixed charges on all existing rates.
- 28 • **Over/under collection:** The revenue requirement will be achieved through an annual
29 rebalancing. All under-collections shall be added to volumetric rates for the following

² *Id.*, p. 11.

1 year. All overcollections will be subtracted from the fixed charge the following year. This
2 will incentivize the IOUs to produce an accurate estimate of revenue collections each
3 year based on the combined volumetric and fixed charges.

4 **Q: How is your testimony organized?**

5 First my testimony quantifies the high electricity rates charged by the large California
6 investor-owned utilities (IOU). I then provide the data demonstrating that low-income customers
7 are disproportionately burdened by California’s high electricity rates and high electricity bills.
8 AB 205 requires a fixed charge that reduces the cost of electricity for low-income households.

9 I then discuss the three most important pieces for design of the income-graduated fixed
10 charge (1) the income brackets and the progressiveness standard (2) the data to be used as a
11 proxy for customers’ income and (3) selection of revenue requirement cost component to be
12 included in the fixed charge. These three items should form the basis for each party’s proposal.

13 After establishing the basis for the fixed charge, I describe the components of the
14 Assessment/Self-Certification Proposal. Then I show the inputs and outputs for both proposals
15 using the E3 fixed charge tool. Finally, I describe the discount to the fixed charge available to
16 electric-only customers and how that discount aligns the proposal with AB 205’s requirement
17 that the fixed charged “[n]ot unreasonably impair incentives for conservation, energy efficiency,
18 and beneficial electrification and greenhouse gas emissions reduction.”³

19 **II. California’s high electricity rates have created a need to shift increasing percentages**
20 **of utility revenue recovery to wealthy customers.**

21 **Q. Does data show that California’s large investor-owned utilities charge abnormally high**
22 **rates for electricity in comparison to other utilities?**

23 Yes. California’s large IOUs, Pacific Gas and Electric (PG&E), Southern California
24 Edison (SCE), and San Diego Gas and Electric (SDG&E) charge rates significantly higher than
25 other California utilities. For example, the Sacramento Municipal Utility District (SMUD)
26 publishes a rate comparison showing its rates compared to other electric utilities.⁴ The rate

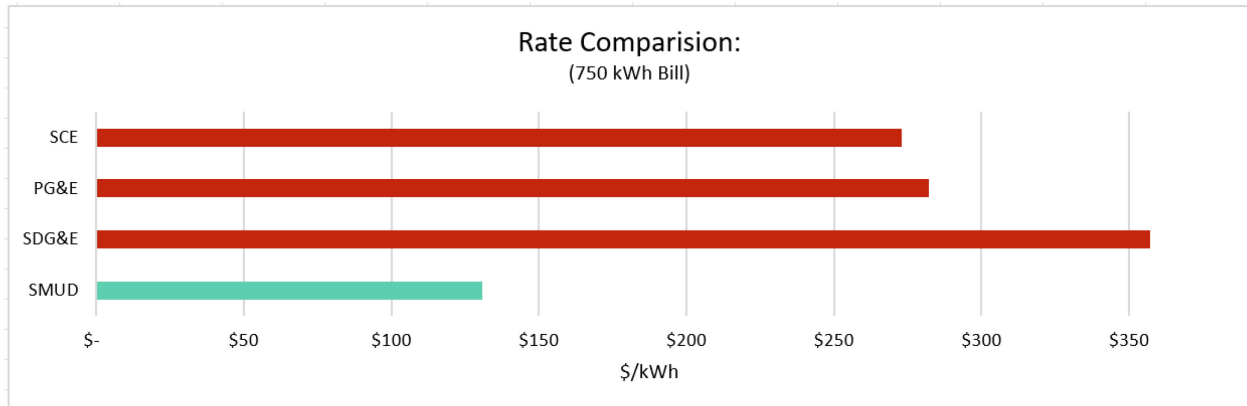
³ Public Utilities Code, Section 739.9(d)(2), (unless otherwise noted, all code references are to the California Public Utilities Code).

⁴ Sacramento Municipal Utility District rate comparison (March 1, 2023), available at <https://www.smud.org/en/Rate-Information/Compare-rates>, [last accessed April 4, 2023].

1 comparison shows that the three large California IOUs charge substantially more than SMUD
2 and all the other utilities in the comparison. The chart below shows a residential SMUD
3 customer's bill for 750 kWh compared to each of the large IOUs.

4
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Figure 1: Comparison of IOU rates to SMUD rates⁵



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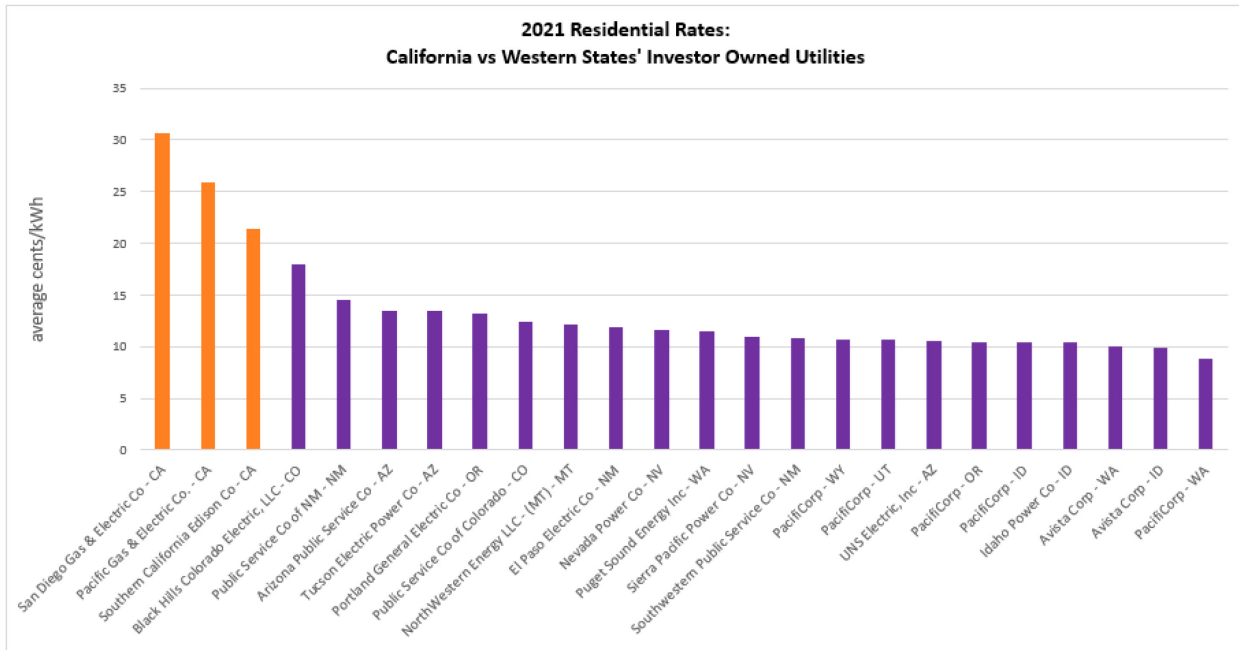
7 Compared to SMUD's price for electricity, SCE charges 2.1 times more, PG&E charges
8 2.2 times more, and SDG&E charges 2.7 times more. The large IOUs' rates also continue to
9 increase at a faster pace than SMUDs rates, which means that the IOUs' rates continue to
10 distance themselves from SMUD's. I estimate that by the beginning of 2027, SDG&E's rates
11 will be more than 3 times higher than SMUD's rates.

12 In addition to the SMUD rate comparison, the large California IOUs charge more than
13 every IOU in the western U.S. with a customer count of 50,000 or more. The chart below shows
14 the U.S. Energy Information Administration's (EIA) average residential rates by IOU for 2021.

⁵ Data Source for the figure: Sacramento Municipal Utility District rate comparison (March 1, 2023), [last accessed April 4, 2023], available at <https://www.smud.org/en/Rate-Information/Compare-rates>.

1

Figure 2: Comparison of IOU rates across the Western United States ⁶



2

3 The large California IOUs charge approximately 1.3 to 2 times more than every other
 4 western IOU with 50,000 or more customers. SDG&E and SCE’s rates increased in 2022,
 5 according to the IOUs’ data request responses, SDG&E’s average rate was 16% higher in 2022
 6 than the EIA 2021 rate and SCE’s average 2022 rate was 14% higher.⁷ All IOUs show higher
 7 rates in 2023 data submitted to E3 for the fixed charge tool.⁸

8 **Q. Is there evidence of IOU utility customers having difficulty paying their electricity bills?**

9 Yes. Data show customers are having difficulty paying their electricity bills.

10 The IOUs make monthly compliance filings to the Commission in the proceeding *Order*
 11 *Instituting Rulemaking to Consider New Approaches to Disconnections and Reconnections to*
 12 *Improve Energy Access and Contain Costs* (R.18-07-005). These compliance filings quantify the

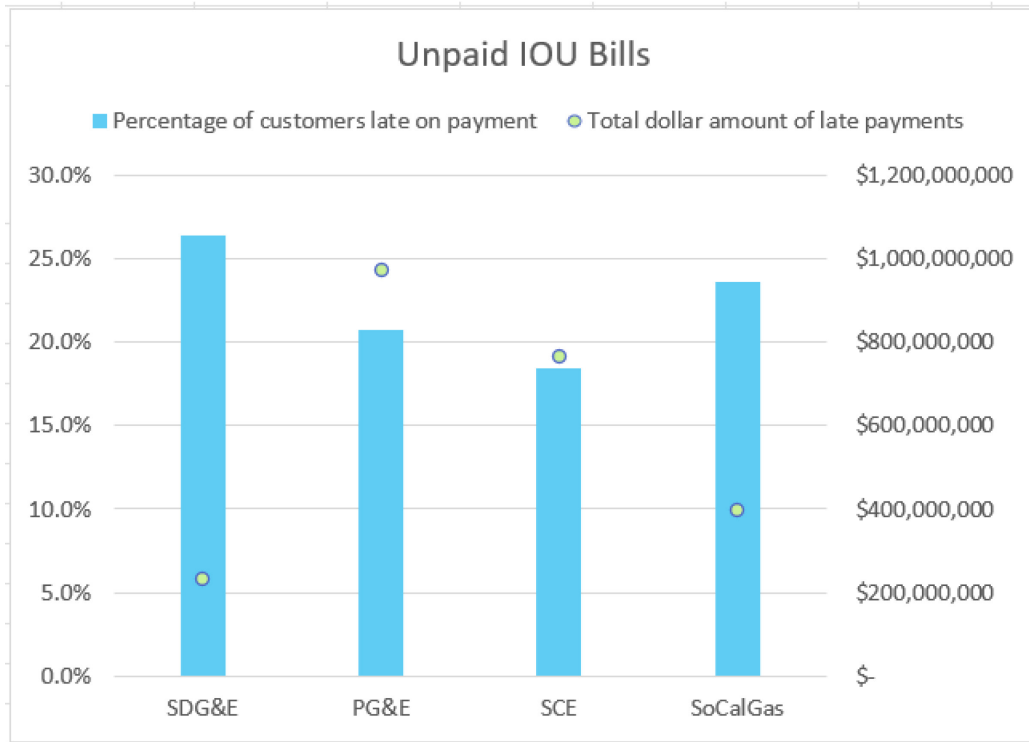
⁶ Data Source for the figure: U.S. Energy Information Administration (EIA), 2021 Electric Sales, Revenue, and Average Price Data Tables, Table T6 (October 6, 2022), available at https://www.eia.gov/electricity/sales_revenue_price/.

⁷ SCE Response to data request CEJA-SCE-DFlex-01 (February 17, 2023); SDG&E Response to data request CEJA-SDGE-DFlex-01 (March 30, 2023).

⁸ CPUC, Final E3 Fixed Charge Tool (March 6, 2023), available at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/demand-flexibility-rulemaking>.

1 number of customers that are late in paying their utility bills and the outstanding dollar amount
2 of the late payments. The chart and table below list some of the data from the latest filings.⁹

3 **Figure 3: Customer Arrears Data, Percentage of Customers and Arrears Dollar Amounts,**
4 **Cumulative through February 2023¹⁰**



5
6

⁹ R. 18-07-005, Disconnection Settlement Monthly Report Of San Diego Gas & Electric Company (U 902 M) (March 20, 2023), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M503/K824/503824987.PDF>; Pacific Gas And Electric Company's (U 39 M) Monthly Disconnect Data Report (March 20, 2023), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M503/K824/503824341.PDF>; Southern California Edison Company's (U 338-E) Monthly Disconnect Data Report (March 20, 2023), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M503/K824/503824560.PDF>; Disconnection Settlement Monthly Report Of Southern California Gas Company (U 904 G) (March 20, 2023), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M503/K824/503824422.PDF>.

¹⁰ *Id.*

1 **Table 1: Customer Arrears Data, Percentage of Customers and Arrears Dollar Amounts,**
 2 **Cumulative through February 2023¹¹**

Customer Arrears Data for February 2023					
IOU	Arreage Customer Count	Total dollar amount of late payments	Total Residential customers	Percentage of customers late on payment	Average owed per arrearage customer
SDG&E	354,118	\$ 234,069,395	1,341,385	26.4%	\$ 660.99
PG&E	1,156,866	\$ 971,762,038	5,580,759	20.7%	\$ 840.00
SCE	843,969	\$ 767,287,046	4,572,597	18.5%	\$ 909.14
SoCalGas	1,353,288	\$ 399,244,223	5,738,055	23.6%	\$ 295.02
	Total	Total	Total	Average	Average
All IOUs	3,708,241	2,372,362,702	17,232,796	21.5%	\$ 639.75

3
 4 SCE, the utility with the lowest percentage of customers behind on their bills, reports that
 5 18.5% of their customers are in arrears. More than a quarter of SDG&E’s customers are behind
 6 in utility payments. As a group, and including the late payments to SoCalGas, utility customers
 7 are behind on their payments by just over \$2.37 billion dollars as of the end of February 2023.¹²

8 **Q. Are CARE customers more likely to be behind on payments to their utilities than other**
 9 **customers?**

10 Yes. CARE customers are more likely to be behind on paying their utility bills than other
 11 utility customers. CARE customers receive a 30-35% discount on their electric bills as required
 12 by statute.¹³ To qualify for the CARE rate discount, customers’ incomes must be 200% or less of
 13 the Federal Poverty Level (FPL).¹⁴ The average California household size is just under 3
 14 people.¹⁵ For a household size of three, 200% of the FPL is \$46,060.¹⁶

15 The IOUs’ compliance filings in proceeding R.18-07-005 include data on the number of
 16 CARE customers that are behind on their IOU bill payments. The table below shows the most
 17 recent arrearage data for CARE customers compared to arrearage data for non-CARE customers.
 18

¹¹ *Ibid.*

¹² *Ibid.*

¹³ Public Utilities Code, Section 739.1(c)(1).

¹⁴ U.S. Census Bureau, Quick Facts - California, Persons in poverty, percent, available at <https://www.census.gov/quickfacts/fact/table/CA/PE120221#PE120221> [last accessed Apr. 6, 2023].

¹⁵ *Id.* at Persons per household, 2017-2021.

¹⁶ HealthCare.gov, Federal poverty level (FPL), <https://www.healthcare.gov/glossary/federal-poverty-level-fpl/> [last accessed Apr. 6, 2023].

1 **Table 2: CARE Customer Arrears Data Totals Cumulative through February 2023**

CARE Customer Arrears Data for February 2023					
IOU	All customers (# customers)	Total CARE customers (# customers)	% of CARE customers (% of total cust)	CARE customer Arrears (# customers)	CARE customer Arrears (% of arrears customers)
SDG&E	1,341,385	342,573	26%	125,412	35%
PG&E	5,580,759	1,419,253	25%	492,618	43%
SCE	4,572,597	1,125,569	25%	286,734	34%
SoCalGas	5,738,055	1,826,446	32%	632,011	47%
Average			25%		37%

2
3 CARE customers make up 25% of all utility customers, but are a much larger share of
4 customers that are late in paying their utility bills, at 37% of the arrears customer count. This
5 shows that CARE customers, even after receiving the CARE discount, are still struggling more
6 to afford their energy bills than other customers.

7 **Q: Are there measures that the Commission could take to reduce the percentage of CARE**
8 **customers behind on utility bills?**

9 Yes. The Commission has an option at its disposal that could lead to lower arrears
10 percentages in the total utility customer population and the CARE utility customer population.
11 The Commission could reduce overall rates by reducing the IOUs' revenue requirements. The
12 are only very specific ways the Commission could go about the lowering of the revenue
13 requirement, but it could be done, particularly during general rate case proceedings.

14 As noted above, the large California IOUs charge between two and three times as much
15 for electricity as SMUD charges. Large California IOUs charge approximately twice as much as
16 other large IOUs across the western U.S. The Commission could reduce large California IOUs'
17 spending until large IOU customers pay, on average, the same rates as SMUD customers.
18 Because of the current difference between large IOU rates and SMUD's rates, this revenue
19 requirement reduction policy would be a challenge execute because it would have to be a policy
20 in place over decades to eliminate the large price differential that exists.

21 //

1 **Q. Is there a way to reduce the disproportionate difficulty that CARE customers**
2 **experience in paying their electricity bills?**

3 Yes. The Commission can reduce the disproportionate difficulty that CARE customers
4 are experiencing in paying their electricity bills and the Commission is required to ensure “just
5 and reasonable” rates. Unaffordable rates, as many CARE customers still experience, are not just
6 or reasonable.

7 If the Commission decides to allow the IOUs to continue the rapid increase in the
8 revenue requirement, the Commission could reduce or eliminate the disproportionate difficulty
9 that CARE customers have in paying their electricity bills by shifting more of the IOUs’
10 recovery of their revenue requirements to higher income customers as allowed through AB 205.

11 The way to get the closest to accomplishing an income-based energy bill that is divorced
12 from energy usage is to assign as many cost components of the total IOUs’ revenue requirements
13 to the income-graduated fixed charge as possible. Currently, most energy use is billed on a
14 volumetric basis with only a few residential tariff options that include a fixed charge. Moreover,
15 even on those rates with a fixed charge, the fixed charge has not been tied to customers’
16 incomes.

17 If the Commission does increase the amount of the income-based fixed charge
18 significantly, and tie the fixed charge to disposable income, the Commission will need to
19 continue tracking arrearage data to determine if all customer income brackets start exhibiting the
20 same income payment difficulties demonstrated by the CARE customer income group. However,
21 to do that, the Commission needs to establish arrearage data tracking by all income categories
22 otherwise the income-based fixed charge may simply increase the difficulty of utility bill
23 payments for the customers with the lowest incomes that do not also qualify for CARE and
24 FERA. To avoid that scenario, the Commission will want to work diligently to set the income-
25 based fixed charge in a progressive structure that uses the data available, data that shows the
26 large differences in income between wealthy Californians and other Californians.

27 AB 205 specifies a mechanism and, depending on statutory interpretation – a
28 requirement, for how the Commission can shift more of the IOUs’ revenue recovery from low-
29 income households to moderate- and high-income households. Section 739.9(e)(1)-(2) states that
30 “the [C]ommission may authorize fixed charges for any rate schedule applicable to a residential
31 customer account. The fixed charge shall be established on an income-graduated basis...so that a

1 low-income ratepayer in each baseline territory would realize a lower average monthly bill
2 without making any changes in usage... For purposes of this subdivision, ‘income-graduated’
3 means that low-income customers pay a smaller fixed charge than high-income customers.”¹⁷

4 To guarantee a lower average bill for low-income customers, the Commission should
5 adopt the income-graduated fixed charge that I have designed on behalf of CEJA.

6 **III. The California Legislature has adopted an income graduation structure for state**
7 **personal income tax upon which the Commission should base its income**
8 **graduation for the fixed charge.**

9 **Q. Please summarize the California personal income tax structure.**

10 California charges significantly different dollar amounts in personal income tax to
11 different taxpayers. The lowest-income Californians do not pay income tax. Moderate-income
12 Californians pay minimal personal income tax. And the wealthiest Californians pay the majority
13 of personal income tax. The percentage of income paid by Californians of different income
14 brackets varies by a few percentage points, but because some Californians earn hundreds or even
15 thousands of times more money each year than their fellow Californians, the total tax liability
16 incurred by the Californians with the highest incomes far exceed the tax liability of moderate-
17 income Californians.

18 The personal income tax structure has been approved by the California legislature.¹⁸
19 Because the Legislature has approved the progressive structure of the personal income tax, the
20 tax structure represents a progressiveness that the Legislature believes is reasonable. For this
21 reason, I use the same progressive structure established for California personal income tax in my
22 proposal for the income-graduated fixed charge that the Legislature approved in AB 205.

23 //

¹⁷ Public Utilities Code 739.9, (“For the purposes of this section and Section 739.1, the commission may authorize fixed charges for any rate schedule applicable to a residential customer account. The fixed charge shall be established on an income-graduated basis with no fewer than three income thresholds so that a low-income ratepayer in each baseline territory would realize a lower average monthly bill without making any changes in usage. The commission shall, no later than July 1, 2024, authorize a fixed charge for default residential rates. (2) For purposes of this subdivision, “income-graduated” means that low-income customers pay a smaller fixed charge than high-income customers.”).

¹⁸ Rev. & Tax. Code section 17041 et seq.

1 **Q. Does the Federal census share income data that roughly correlate with 10% divisions of**
2 **the overall California personal income tax liability?**

3 No. The Census data shows income data at a granular level for low- and moderate-
4 income brackets. However, the Census does not report the same detail for taxpayers with annual
5 income of \$250k and greater.

6 **Q. Does the E3 fixed charge tool use data from the U.S. Census brackets?**

7 The E3 tool only uses U.S. Census data to a certain extent. The E3 tool uses data sets
8 from Haas School of Business, University of California Berkeley. Haas used Census data.
9 The problem with the data available through the E3 tool is that the top income bracket is \$200k+.
10 Most California personal income tax revenue collected by the FTB is collected from taxpayers
11 with returns reporting greater than \$200k in income. The highest income bracket in the tool does
12 not provide the Commission with enough granularity of the income of utility customers earning
13 more than \$200k. I recommend further divisions of the top tax bracket so that the Commission
14 will have enough data to design an income-graduated fixed charge that uses the progressiveness
15 precedent of the California personal income tax.

16 This is not a criticism of the E3 tool. E3 built an excellent tool with many useful features
17 to help the Commission determine the best design for an income-graduated fixed charge. E3 was
18 limited to the available data from Haas in the creation of the fixed charge tool.

19 **Q. Please describe the amount of California personal income tax collected within each of**
20 **the income bracket used in the E3 tool.**

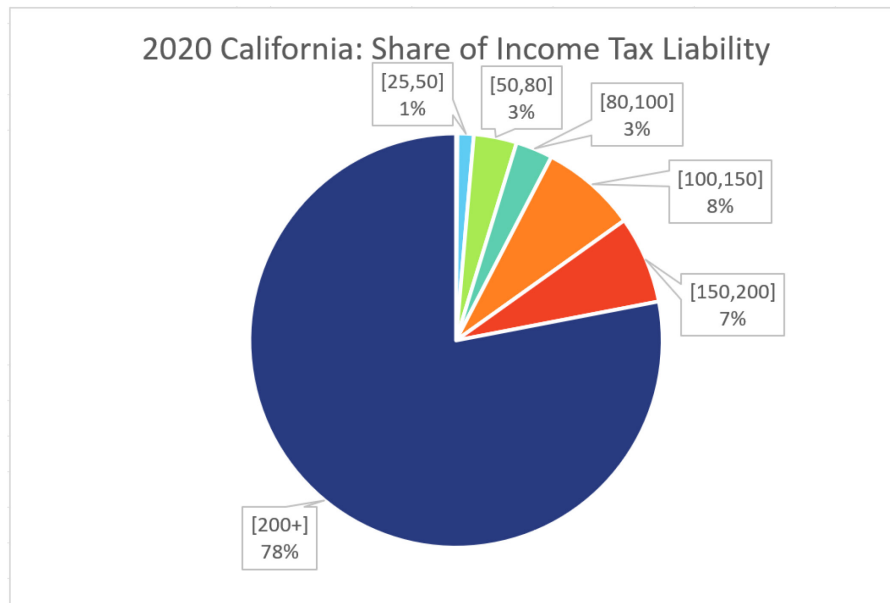
21 The E3 tool used the following income brackets:¹⁹

- 22 • [\$0-25k]
- 23 • [\$25-50k]
- 24 • [\$50-75k]
- 25 • [\$75-100k]
- 26 • [\$100-150k]
- 27 • [\$150-200k]
- 28 • [\$200k and over]

¹⁹ While the brackets below use round numbers for simplification, the top end of each bracket is assumed to be 1 cent lower than the bracket listing (e.g. the top end of the 0-100 thousand (k) bracket is actually \$99,999.99).

1 The FTB issues a report each year that provides data on the dollar amount of personal
2 income tax liability per bracket of income reported per return.²⁰ Because the FTB only reports
3 income brackets in \$10k increments, above \$40k of reported income, the separating line between
4 the \$50-75k bracket and the 75k-100k bracket must shift either up or down. In response to this
5 question and for the rest of the testimony that compares FTB data to the E3 tool brackets, I have
6 shifted the separation between the affected brackets up \$5k so that the brackets are \$50-80k and
7 \$80-100k. The most recently released FTB data is for the year 2020 tax returns. Using the
8 adjusted set of brackets, the income liability distribution for California for 2020 is shown in the
9 following chart.

10 **Figure 4: 2020 California income liability by income bracket**
11 **displaying the top income bracket as: \$200k and over**

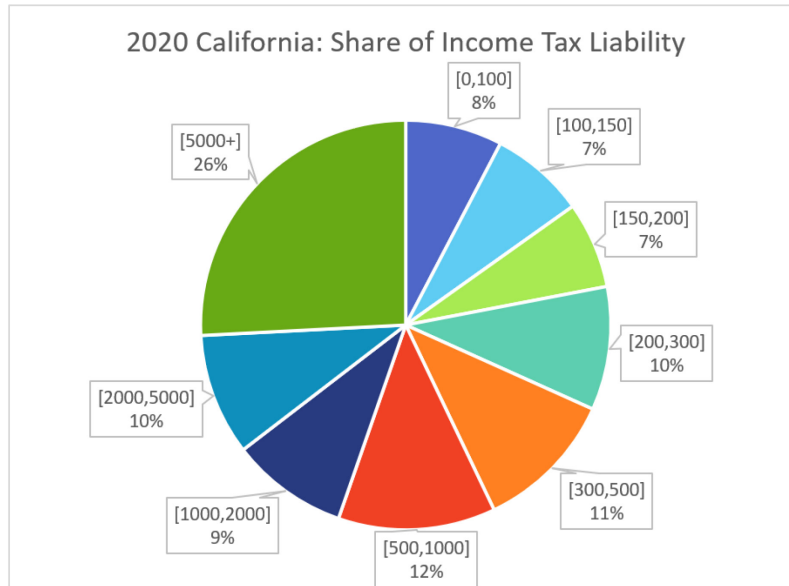


12
13 Returns reporting \$200k or less in income correspond to less than a quarter of the tax
14 liability for California personal income tax. If the Commission accepts my recommendation and
15 uses an approximation of the progressiveness of the California personal income tax, the tax
16 brackets from the E3 tool will not provide enough data granularity in the \$200k+ category.
17 Instead of a top income bracket of \$200k+, the Commission should use the full range of data
18 provided in the FTB report or ask the FTB for even more granular data so that the Commission
19 can establish brackets that correspond to 10% increments in tax liability. Using the FTB's

²⁰ California Franchise Tax Board, Personal Income Tax Annual Report 2021 (November 22, 2022), available at <https://data.ftb.ca.gov/stories/s/2it8-edzu>.

1 released data, I have created divisions as close as possible to 10% increments of tax liability. I
2 show these brackets in the following chart, which lists nine brackets of income.

3 **Figure 5: 2020 California income liability by income bracket**
4 **displaying the top income bracket as: \$5000k and over**



5
6 The top bracket in the FTB data is \$5000k and above (i.e. \$5 million and above in
7 reported earnings). Even when shifting the top bracket to \$5000k+, the tax liability for that
8 bracket equals 26% of the California personal income tax liability. To be clear, the two pie charts
9 above use the same data set. The charts simply show the tax liability broken into different
10 income brackets.

11 **Q. How does the set of brackets with \$200k+ representing the top bracket and the set of**
12 **brackets with \$5000k+ representing the top bracket correspond to percentage of total filed**
13 **brackets?**

14 Even though taxpayers that file returns reporting \$200k+ in income represent 78% of the
15 total tax liability, those returns were a small minority of total number for the California tax
16 returns. The table below shows the share of tax returns and the share of income tax liability
17 corresponding to each bracket with the top bracket equal to \$200k+.

Table 3: Comparison of number of tax returns to the tax liability amount displaying the top income bracket as: \$200k and over

Income Bracket (000)	Share of Income Tax Returns	Share of Income Tax Liability
[0,25]	34.5%	0.114%
[25,50]	22.0%	1.269%
[50,80]	15.1%	3.365%
[80,100]	6.3%	2.898%
[100,150]	9.2%	7.504%
[150,200]	4.6%	6.826%
[200+]	8.3%	78.024%

Table 3 shows that returns reporting \$200k or more in income only represented 8.3% of the returns in 2020. Regardless, the fact remains that a tax liability of 78% shows that a top bracket of \$200k+ fails to adequately capture the variations in tax liability among customers with income in that bracket. If the Commission were to use a top tier for the income-differentiated fixed charge that was \$200k+, then the regressivity within the tier would be quite large. For example, a fixed charge tier that included \$20k of income to \$200k of income would assess an identical fixed charge on those customers even though the customers in that bracket with the highest income would be earning approximately 10 times more than the customers in the bracket with the lowest income. Thus, assessing the same fixed charge on each of those customers does not reasonably meet the legislative directive to implement an income graduated fixed charge. Similarly, a customer with a \$2000k income earns 10 times more than a customer with a \$200k income. An identical fixed charge for each of those customers would also fail to align with reasonable assumptions about income graduation.

The table below shows the share of tax returns and the share of income tax liability corresponding to each bracket with the top bracket equal to \$5000k+ (i.e. \$5 million and over in annual income).

Table 4: Comparison of number of tax returns to the tax liability amount displaying the top income bracket as: \$5000k and over

Income Bracket (000)	Share of Income Tax Returns	Share of Income Tax Liability
[0,100]	77.9%	7.646%
[100,150]	9.2%	7.504%
[150,200]	4.6%	6.826%
[200,300]	3.9%	9.759%
[300,500]	2.4%	11.176%
[500,1000]	1.3%	12.409%
[1000,2000]	0.4%	9.248%
[2000,5000]	0.2%	9.617%
[5000+]	0.1%	25.815%

The table shows that the top 2% of tax returns correspond to approximately the top 57% of tax liability. As noted previously, this is because while the percentage of taxes paid per dollar earned varies minimally, the number of dollars earned (i.e. the income) vary significantly. Table 4 shows the same division of income as Figure 5, above. Table 4 better describes the variations in income experienced by Californians and the approved progressiveness of personal income tax in California than the table that places all incomes above \$200k into the same income bracket.

Q. Has the Commission selected a metric for a reasonable amount of income to spend on energy bills?

Yes. In D.15-07-001, the Commission set 5% of income as an upper bound for the percent of income to be spent on energy.²¹ In D.21-10-012, the Commission capped gas and electricity bills at 4% of income for a low-income customer pilot program.²² Because non-low income customers have more disposable income, and because the decisions noted above used

²¹ D.15-07-001, *Order Instituting Rulemaking on the Commission’s Own Motion to Conduct a Comprehensive Examination of Investor Owned Electric Utilities’ Residential Rate Structures, the Transition to Time Varying and Dynamic Rates, and Other Statutory Obligations*, (Jul. 3, 2015) <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M153/K110/153110321.PDF>.

²² D.21-10.012, *Order Instituting Rulemaking to Consider New Approaches to Disconnections and Reconnections to Improve Energy Access and Contain Costs*, (Oct. 7, 2021) <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M413/K823/413823568.PDF>.

1 disposable income as one reason for setting the acceptable limits of income to be spent on utility
 2 bills, one can reasonably assume that the Commission would set the acceptable limit for energy
 3 spending at more than 5% of income for non-low income customers. Further, because California
 4 has established a decarbonization energy policy, in the future all of the energy burden should be
 5 assumed to be electricity procurement instead of splitting the energy burden between electricity
 6 and gas, especially for high-income customers who can afford electrification. For these reasons, I
 7 set the electricity burden to 5% of income to show the acceptable energy burden for the bottom
 8 income from each of the income brackets displayed in Table 4 above.

9 However, as the Commission has noted in other proceedings, until most Californians shift
 10 to electricity for all of their energy needs, the electricity energy cap should be no more than 3%
 11 for dual fuel households. Table 5 for illustrative purposes assumes a full 5% electric energy
 12 burden assuming an electric-only customer.

13 **Table 5: Energy Burden Cap – 5% of Income by Bottom of Income Bracket**

Energy Burden: 5% of Income, (and illustrative fixed charge as a % of the energy burden)				
Income Bracket (000)	Bottom of Income Bracket	Energy Burden Cap by Bracket	Illustrative fixed charge at 1/10th of the Energy Burden Cap (annual)	Illustrative fixed charge at 1/10th of the Energy Burden Cap (monthly)
[0,100]	\$ -	\$ -	\$ -	\$ -
[100,150]	\$ 100,000	\$ 5,000	\$ 500	\$ 42
[150,200]	\$ 150,000	\$ 7,500	\$ 750	\$ 63
[200,300]	\$ 200,000	\$ 10,000	\$ 1,000	\$ 83
[300,500]	\$ 300,000	\$ 15,000	\$ 1,500	\$ 125
[500,1000]	\$ 500,000	\$ 25,000	\$ 2,500	\$ 208
[1000,2000]	\$1,000,000	\$ 50,000	\$ 5,000	\$ 417
[2000,5000]	\$2,000,000	\$ 100,000	\$ 10,000	\$ 833
[5000+]	\$5,000,000	\$ 250,000	\$ 25,000	\$ 2,083

14
 15 Table 5 shows that the Commission should restrict energy bills for the top income bracket
 16 to \$250,000 per year to keep all customers in the top income bracket – even the customers with
 17 the lowest income in the top bracket – below the 5% energy burden limit established by the

1 Commission. The “energy burden cap by bracket” column functions the same way for each of
2 the other income brackets.

3 The question then becomes what is a reasonable fixed charge portion of the total energy
4 bill? While that is a question best answered by the E3 fixed charge tool, I show an illustrative
5 10% of energy burden fixed charge in the fourth column. Then in the last column, I divide the
6 annual fixed charge by 12 to show what the monthly charge, by income bracket, would be for the
7 illustrative 10%-of-energy-burden fixed charge.

8 I do not anticipate the Commission will require high-income customers’ rates to be set
9 according to the energy burden cap. However, Table 5 illustrates an interesting thought
10 experiment. If a 5% energy burden is reasonable for low-income customers, should 5% not also
11 be reasonable for high-income customers especially when considering the construction of a
12 legislatively mandated income-graduated fixed charge?

13 **Q. Do you have a recommendation for how the Commission should make use of the FTB**
14 **data in Tables 3 and 4 and Figures 4 and 5?**

15 Yes. The Commission can use the information provided to determine a reasonable
16 number of tiers for the income-graduated fixed charge. While AB 205 required a minimum of
17 three thresholds for the income-graduated fixed charge, the data from the FTB demonstrates that
18 either three income or four income brackets would result in significant regressiveness within
19 some, and likely all brackets.

20 The Legislature intended AB 205 to address the disparity between volumetric revenue
21 recovery and inequitable electricity utility burden, requiring that fixed charges do not “over
22 burden low-income customers.” This, accompanied by a minimum of four tiers of fixed charges
23 indicate that a comprehensively progressive fixed charge is needed to meet the legislature’s
24 mandate and redistribute energy costs equitably.²³ I interpret the legislative language that
25 required multiple tiers to show that the Legislature was aware that too few tiers would result in a
26 regressive fixed charge for some customers. The Legislature did not know how many tiers would
27 be required to avoid regressivity. For that reason, it left the number of tiers up to the Commission
28 to determine.

²³ SC and CEJA Opening Brief, pp. 5, 8.

1 Instead of three or four income brackets, I recommend the Commission establish 8-10
2 brackets with the brackets aligned with approximately 10% increments of tax liability as reported
3 by the FTB. My recommendation would require the Commission to request from the FTB a
4 different aggregation of tax liability data than the FTB releases in its annual reports because I
5 have already grouped the brackets in Figure 5 and Table 4 to best approximate 10% increments
6 of tax liability using the available FTB data. As one can see from Figure 5 and Table 4, many of
7 the increments are not particularly close to 10%. However, if the Commission would like to
8 implement brackets that minimize in-bracket regressiveness, the income brackets shown in Table
9 4, even without further adjustments into 10% increments, would be preferable to the income
10 brackets in the fixed charge tool.²⁴

11 If the Commission chooses to use the minimum number of brackets (i.e. three) that any of
12 the parties recommended in its statutory brief,²⁵ I recommend that the division of brackets be by
13 thirds of tax liability as reported by the FTB. In this case, the lowest bracket should still pay \$0
14 to ensure that CARE and FERA customers pay a \$0 fixed charge and see lower average bills.
15 The approximate income levels for brackets divided into thirds of income liability would result
16 in the following brackets:

²⁴ *Id.*, p. 5.

²⁵ While the SC and CEJA Opening Brief stated that three bracket were the minimum required by AB 205, other parties made a recommendation for three brackets. Thus, while CEJA's position is that four or more brackets should be use, the Commission may interpret the requirement differently.

1

Table 6: Three-tier fixed charge composition set to thirds of tax liability

INCOME TAX LIABILITY BRACKETS (approximating liability divisions by thirds*)					
	A	B	C	D	E
Income Bracket (000)	Share of Income Tax Returns	Share of Income Tax Liability	Fixed Charge Weighting by Bracket (B x 3 = C) <small>(Proportion scaled by 3 and rounded to nearest whole number to approximate w/ whole numbers)</small>	Average share of tax liability per return in bracket (B / A = C)	Ratio of fixed charge payment by customer (Dx3=E)
[0,300]	95.656%	31.735%	1	0.331762	1
[300,2000]	7.617%	33.344%	1	4.378	13
[2000+]	0.238%	35.431%	1	148.637	446

*Brackets were selected to get as close to 33% increments in tax liability share per bracket using the Franchise Tax Board's report data.

2

3 In Table 6, one can see that the fixed charge weightings are similar because the tax
4 liability increments are similar. However, because of the far fewer customers in the top income
5 bracket, the fixed charge payment by those customers is far higher than either of the bottom two
6 brackets. Column E shows the respective brackets, not the actual dollar amount. For example, if
7 the Commission decided to set the monthly fixed charge on the lowest tier to \$4, the weighting
8 table shows that the other two income brackets should be multiplied by 4 to maintain the bracket
9 payment proportions. Thus, the customers in the middle- and top-income brackets would pay \$52
10 and \$1,783 respectively. A monthly fixed charge of \$1,783 equates to just 1% of the total income
11 of the customers with the lowest incomes in the top income bracket from Table 6. Thus, the fixed
12 charge portion of a hypothetical customer in the top income bracket payment would be far lower
13 than the 5% energy burden cap for that customer. The low fixed charge to energy burden ratio
14 demonstrates that a \$1,783 monthly fixed charge remains reasonable for the top income bracket
15 when the income brackets are set to equal 33% increments of tax liability.

16 It is important to note that the only reason that the fixed charge weighting in Table 6 is
17 very similar from tier to tier is that the tiers were set according to tax liability. The fixed charge
18 weighting needs to be set according to tax liability to approximately level the energy burdens
19 from tier to tier. Because the tax liabilities differ significantly between the tiers used in the E3
20 tool, the fixed charge weighting from the lowest income bracket to the highest income bracket
21 must increase significantly to levelize the energy burden according to the progressivity of the

1 California personal income tax structure. Table 7 below shows the weighting needed to levelize
 2 energy burden to equate to the personal income tax structure when using the E3 Fixed Charge
 3 Tool's brackets.

4 **Table 7: Tiers aligned with the E3 tool's income bracket and resulting fixed charge**
 5 **weighting that equates to personal income tax liability**

	A	B	C	D	E
Income Bracket (000)	Share of Income Tax Returns	Share of Income Tax Liability	Fixed Charge Weighting by Bracket (B x 77 = C) <small>(Proportion scaled by 77 and rounded to nearest whole number to approximate w/ whole numbers)</small>	Average share of tax liability per return in bracket (B / A = C)	Ratio of fixed charge payment by customer (Dx17=E)
[0,25]	34.5%	0.114%	0	0.00329	0
[25,50]	22.0%	1.269%	1	0.05770	1
[50,80]	15.1%	3.365%	3	0.22240	4
[80,100]	6.3%	2.898%	2	0.46002	8
[100,150]	9.2%	7.504%	6	0.81660	14
[150,200]	4.6%	6.826%	5	1.48160	25
[200+]	8.3%	78.024%	60	9.45211	161
*Franchise Tax Board's report data only shows divisions of 10k after the 40k bracket. To approximate the E3 Tool brackets, a line between brackets was shifted from 75k to 80k, affecting two brackets.					

6
 7 The reason that the highest income bracket's payment ratio is lower than the highest
 8 income bracket in Table 6 is because the share of income tax returns in Table 7 is significantly
 9 higher for the highest income bracket in Table 7. As demonstrated through Table 7, any parties
 10 that use the tier structure in the E3 fixed charge tool, without modifications to the brackets,
 11 should use the weightings shown in Table 7 column C. However, as noted previously, a \$200k
 12 and over bracket is very regressive within the bracket. For that reason, I recommend against the
 13 tier structure in Table 7 regardless of the weightings used in the tool.

14 **Q. What would be an ideal tier structure for the Commission to use for the income-**
 15 **graduated fixed charge?**

16 First, as I noted previously, I recommend 8-10 tiers to reduce regressivity within tiers
 17 compared to a tier structure containing fewer tiers. Second, I recommend setting the tiers to
 18 income bracket amounts that equate to identical shares of California personal income tax
 19 liability. Because the FTB's annual report does not provide granular enough data to determine

1 the income brackets that correspond to 10 equal shares of income tax liability, the brackets in my
 2 example below (Table 8) are the best approximation possible using the FTB annual report data.

3 **Table 8: Approximation of my Assessment Proposal’s tiers and resulting fixed charge**
 4 **weighting that equates to personal income tax liability**

	A	B	C	D	E
Income Bracket (000)	Share of Income Tax Returns	Share of Income Tax Liability	Fixed Charge Weighting by Bracket (B x 200 = C) (Proportion scaled by 200 and rounded to nearest whole number to approximate w/ whole numbers)	Average share of tax liability per return in bracket (B / A = C)	Ratio of fixed charge payment by customer (Dx1.2=E)
[0,100]	77.9%	7.646%	15	0.098087	0
[100,150]	9.2%	7.504%	15	0.817	1
[150,200]	4.6%	6.826%	14	1.482	2
[200,300]	3.9%	9.759%	20	2.496	3
[300,500]	2.4%	11.176%	22	4.608	6
[500,1000]	1.3%	12.409%	25	9.684	12
[1000,2000]	0.4%	9.248%	18	23.155	28
[2000,5000]	0.2%	9.617%	19	58.525	70
[5000+]	0.1%	25.815%	52	348.567	418

*Brackets were set to get as close to 10% increments in tax liability share per bracket using the Franchise Tax Board's report data.

5
 6 As you can see, column C’s weightings vary. With ideal income bracket divisions,
 7 column C would see identical weightings similar to Table 6. With 10 income bracket divisions,
 8 the column B share of income tax liability would equal 10% for each income bracket.²⁶
 9 However, even with the imperfect example brackets in Table 8, you can see that column E shows
 10 a much more progressive ratio of fixed charge payments by customer. This progression shows
 11 that the regressiveness within each brackets present in Table 6 is not inevitable. Table 6 only had

²⁶ Because income taxes vary from year to year, the idealized scenario I describe of divisions of 10% tax liability would only perfectly align with the tax returns of a single year. For this reason, the brackets should be established using a 5-year average and the income brackets should be revised every few years. The FTB tax year data on which this testimony is based is the latest data from the FTB, the 2020 tax year.

1 three income brackets. I will use the Table 8 income brackets when I discuss how to use the
2 assessed values of residential properties as a proxy for income.

3 **IV. The Commission should use the best available proxy for income to establish the tiers**
4 **for the income-graduated fixed charge.**

5 **Q. Is there a data set that includes the income of each IOU customer in California?**

6 No. I am not aware of any data set that includes that information.

7 **Q. Does the state of California have access to multiple data sets that when combined would**
8 **allow the Commission to derive the exact dollar amount of income of each IOU customer in**
9 **California?**

10 No. To my knowledge, no overlapping data sets could be combined to determine the
11 income of each IOU customer in California.

12 **Q. Does the Commission have access to a data source containing proxies of customers'**
13 **incomes?**

14 Yes, there are a variety of data sources that the Commission can use as income proxies.
15 The key word is proxy. Because there are no data sources for IOUs' customers' incomes, any
16 data source on income is a proxy for actual income.

17 **Q. Is there a good income proxy for to use for low-income customers?**

18 Yes. CARE or FERA program participation is a good income proxy. The Commission
19 should assume that customers that are in either for CARE or FERA are low-income customers
20 and that these customers should be placed in the lowest income tier for the income-graduated
21 fixed charge. However, the Commission should not be satisfied that the CARE and FERA
22 programs include all low-income customers. Through other income-proxy data, the Commission
23 should attempt to find the rest of the low-income customers that for one reason or another have
24 not signed up for the CARE or FERA. Identifying low-income customers and assigning these
25 customers to the correct income tier is important because low-income customers should not be
26 assigned an upper tier fixed charge, a charge that would increase their energy burden.²⁷

27
28 //

²⁷ SC and CEJA Opening Brief, pp. 10-11, (See for additional income proxies for low-income customers).

1 **Q. Please describe some other income proxies and the issues associated with those proxies.**

2 Three of the most likely income-proxy data sources to be recommended by parties would,
3 at best, reveal an incomplete and inaccurate accounting of customers' income. These data
4 sources are credit bureau data, FTB data, and customer self-certification of income.

5 Credit bureaus can provide a lender with the lender's customer's income by completing
6 an income verification process for the lender. However, this process starts with authorization by
7 the lender's customer for financial entities to release the customer's financial information to the
8 credit bureau. While it is not difficult for a lender to receive this authorization from a customer
9 who is requesting lending services from the lender, it will be much more difficult for IOUs to
10 receive the same authorization from their customers. Additionally, credit bureaus sell
11 information and services. Even if the credit bureaus were able to obtain customers' incomes for
12 the IOUs, the cost to the IOUs and ultimately to ratepayer would be unacceptable. For example,
13 Equifax advertises the cost of an employment and income verification process at \$60.45 per
14 report.²⁸ While bulk pricing of reports may be much lower, the ongoing costs of, even annual,
15 verification should not be borne by ratepayers.

16 The FTB represents another possible point of verification, but also poses numerous
17 difficulties connected to this verification process. The FTB cannot release tax return information
18 without the authorization of the taxpayer(s) that files the return.²⁹ Thus, the FTB data is
19 available, but difficult to access. The administrative burden for collecting utility customer
20 information from the FTB would be significant. However, even if the Commission selected FTB
21 data as the verification source of income and an administrative process were streamlined, the
22 data available to the FTB does not show all customer income. Californians only report the
23 income to the FTB that is taxable under California law. Many IOU customers do not file taxes.
24 Some IOU customers are not Californians. The FTB would not have tax information for those
25 customers. Non-California-resident-IOU customers with out-of-state income, but no California
26 income would not file or pay California taxes. Thus, an IOU customer without-of-state income
27 but little or no California income would be incorrectly assigned to a low- or no-fixed charge
28 income bracket. Further, taxes themselves depend on the honest reporting of income. If the

²⁸ Equifax, The Work Number, available at <https://theworknumber.com/verification-sign-up> [last accessed April 5, 2023].

²⁹ Rev. & Tax. Code section 19542.

1 Commission wanted to depend on the honest reporting of income as the source data for
2 assignment to an income bracket and ultimately for assignment to a fixed charge level, then it
3 would be much simpler to for the Commission to use a self-certification process.

4 Self-certification requires IOUs to solicit income information from each customer. I
5 prefer self-certification to the other possible forms of income verification. While there is a
6 possibility that customers will not provide the IOUs any income information. Self-certification
7 provides a low-cost way to obtain some customer income information.

8 **Q. Are there other income verification issues that the Commission will need to address**
9 **when considering the data source of income?**

10 Yes. The Commission must consider the ongoing data collection requirements related to
11 the frequency of customers' income changes. The U.S. Bureau of Labor Statistics (BLS) reports
12 that the median tenure of an employee with the employee's current employer is 4.1 years.³⁰
13 However, people employed in the occupation category of "food preparation and serving related
14 occupations" only have a median employment duration of 1.6 years.³¹ When people change jobs,
15 their income changes as well. Using the median employment length of 4.1 years and no other
16 assumptions about income changes, approximately a quarter of the income data will be outdated
17 for the employed population after 1 year. However, there are numerous other factors to consider
18 with income. For example, even workers who do not change jobs are unlikely to have the same
19 income from year to year. The BLS reports that in 2022, average worker compensation costs
20 increased 5.1% from the previous year.

21 The above statistics apply to individuals. The average utility customer household size in
22 California is 2.92 people.³² California's median house income is more than twice the per capita
23 income and the labor force is 63% of the population.³³ Extrapolating from the household size and
24 labor force participation, 1.8 persons per household hold jobs. That fact increases the variance in
25 household income by an equivalent amount. Thus, for the Commission to maintain an income-

³⁰ U.S. Bureau of Labor Statistics, Table 6. Median years of tenure with current employer for employed wage and salary workers by occupation, selected years, 2012-2022 (September 22, 2022), available at <https://www.bls.gov/news.release/tenure.t06.htm>.

³¹ *Ibid.*

³² U.S. Census Bureau, Quick Facts - California, Persons per Household, 2017-2021, available at <https://www.census.gov/quickfacts/fact/table/CA/HSD310221>, [last accessed April 5, 2023].

³³ *Ibid.*

1 graduated fixed charge based on current household income, it must establish a system of income
2 verification updated frequently.

3 For the reasons above, the Commission should not create a system that attempts to track
4 household income in real time – frequent tracking would be administratively unrealistic. Instead,
5 the Commission should require the IOUs to make regular updates to income that logically align
6 with type and frequency of income data available for the income proxy that the Commission
7 selects. With any system, the income data updates should be no less frequent than every three
8 years. This balances the need to maintain updated income data with keeping the administrative
9 burden held to an acceptable level.

10 **Q. What secondary form of income verification should the Commission use for customers**
11 **that either do not volunteer income data or mis-report income?**

12 After self-certification, the Commission should require the IOUs to conduct an income
13 verification process on all customers that did not submit a self-certification, with the use of
14 publicly available data. As I have pointed out in answers to earlier questions, there is no
15 accurate, reliable source of income data for all California IOU customers. Because no source of
16 income data is complete, reliable, and accurate, all income source data functions only as a proxy
17 of customer income. The income proxy I recommend for the secondary verification of customer
18 income is the assessed value of a customer’s service address.³⁴

19 Residential properties’ assessed values provide many benefits. First, all residential
20 properties’ assessed values are publicly available. The IOUs do not have to receive customers’
21 authorizations to access the data. Second, the data is updated frequently. I checked with the two
22 counties in California with the largest populations, Los Angeles County and San Diego County.
23 Both counties’ assessor’s offices update the assessment database weekly. Thus, the income proxy
24 is reliably current. Third, the values of the properties more accurately represent long-term
25 income instead of short-term income because residential properties require years of household
26 income to make years of mortgage payments or rent payment. Fourth, because mortgage or rent
27 payments frequently reflect household income, assessed value correlates with household income
28 of IOU customers instead of just the person listed on the bill. Fifth, because of Proposition 13,

³⁴ SC and CEJA Opening Brief, p. 11, (“A ‘customer’ is the person who pays the monthly electricity bill on behalf of a household. In the context of electricity bills, customer and household are and should be interchangeable.” California Revenue and Taxation Code section 20504 defines household income as “all income received by all persons of a household while members of such household.”).

1 the assessed value reflects the value of home that a customer can or could afford even though the
2 current market value may reflect a value far above an affordable level for the household.³⁵ That
3 means the assessed value better reflects the long-term income of the household than market value
4 does. Sixth, the assessed value provides an excellent secondary check on a self-certified income
5 (during a spot-check) because an IOU customer that claims low-income status but is living in a
6 home with an assessed value of, for example, \$6 million show the Commission a clear
7 disconnect between claimed income and the customer's spending level. In that scenario the
8 Commission can comfortably make the determination that despite the self-verified income, the
9 customer should not receive the benefits of a low- or no-fixed charge utility bill. Ratepayers
10 should not be responsible for subsidizing the utility costs of a multi-millionaire.

11 **Q. How can the IOUs use assessed value as a proxy for income?**

12 The Commission can direct the IOUs to take each property assessment value in the state
13 and arrange them in order of lowest to highest. Using the ordered assessed value list, each
14 assessed value can be assigned a percentage according to where it falls in the overall range. That
15 percentage can then be assigned to an income bracket by using column A of Table 8. For
16 example, the bottom 77.9% percent of assessed property values would be assigned the income
17 bracket \$0-100k and assigned the corresponding fixed charge. Table 9 below shows percentage
18 ranges of properties' assessed values that correspond to the income brackets in Table 8.

19

³⁵ [This needs a footnote citing to or Prop 13 or a CA state summary of Prop 13] proposed citation
<https://assessor.lacounty.gov/real-estate-toolkit/proposition-13>

1 **Table 9: Corresponding income bracket to properties' % within range of assessed values**

Extraction from Table 8		Assessed value range corresponding to income brackets	
	A		
Income Bracket (000)	Share of Income Tax Returns	Bracket bottom: Assessed value percentage of range	Bracket Top: Assessed value percentage of range
[0,100]	77.9%	0	77.9%
[100,150]	9.2%	77.9%	87.1%
[150,200]	4.6%	87.1%	91.7%
[200,300]	3.9%	91.7%	95.7%
[300,500]	2.4%	95.7%	98.1%
[500,1000]	1.3%	98.1%	99.4%
[1000,2000]	0.4%	99.4%	99.8%
[2000,5000]	0.2%	99.8%	99.9%
[5000+]	0.1%	99.9%	100.0%

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Using the assessed values as a proxy for income is a proxy just like all proxies. Some customers will live at residences where the properties' assessment value is lower than would correlate to the customer's income bracket when using the method described above. The reverse is also true. However, all of the strengths of using that property assessment value as a proxy for income outweigh the weaknesses and use of the Assessment Proposal is a strong income proxy candidate for the Commission to consider.

Q. To give an understanding of assessment value, what is the range of assessment values that correspond to the top 1% of property values?

I extracted the sales data from Redfin for most of the counties in SCE's service territory and reviewed the top 1% of residential property sales for the group of properties that included homes, townhouses, condos, and mobile homes. The assessed values of the properties are the sales value in the first year after the sale. Then Prop 13 caps the assessment value escalation to no more than 2% each year. Thus, the following table, that shows the data corresponding to the prior year's

1 sales from the date of March 25, 2023, is likely to represent several of the highest assessment
 2 values in the SCE service territory.

3 **Table 10: Range of top 1% of one year of sales values for**
 4 **selected counties in SCE’s service territory**

County	Inyo	Kern	LA County (City removed)	Mono	Orange	Riverside	San Bernardino	Santa Barbara	Tulare	Ventura
# sold incl. (house, townhouse, condo, mobile)	175	10,240	34,782	99	4,268	6,263	4,091	3,203	790	7,508
1% of homes sold	2	102	348	1	43	63	41	32	8	75
Least expensive home in top 1%	\$ 910,000	\$ 970,000	\$ 6,999,900	\$ 3,000,000	\$ 6,400,000	\$ 2,600,000	\$ 1,475,000	\$ 12,100,000	\$ 836,000	\$ 3,695,000
Most expensive home in top 1%	\$ 990,000	\$ 2,950,000	\$ 225,000,000	\$ 3,000,000	\$ 30,600,000	\$ 9,350,000	\$ 5,700,000	\$ 36,000,000	\$ 2,529,080	\$ 24,700,000
0.1% of homes sold	\$ 0	\$ 10	\$ 35	\$ 0	\$ 4	\$ 6	\$ 4	\$ 3	\$ 1	\$ 8
Least expensive home in top 0.1%		\$ 1,700,000	\$ 32,500,000		\$ 17,100,000	\$ 5,950,000	\$ 3,900,000	\$ 28,250,000	\$ 2,529,080	\$ 7,977,837
Most expensive home in top 0.1%		\$ 2,950,000	\$ 225,000,000		\$ 30,600,000	\$ 9,350,000	\$ 5,700,000	\$ 36,000,000	\$ 2,529,080	\$ 24,700,000

5
 6 Table 10 shows the wide range of sales values from coastal counties to inland counties. It
 7 also shows the types of peak sales prices of residential properties that exist in California. In the
 8 last year in LA County the most expensive home sold for \$225 million. This example
 9 demonstrates why the Commission should create several income categories out of the \$200k and
 10 over income bracket that represents that highest income bracket in the E3 fixed charge tool. The
 11 IOU customer at the address of the property that sold for \$225 million should not pay the same
 12 monthly fixed charge as a customer with an income of \$200k.

13 To better understand assessment values, I requested the assessed values for all residential
 14 properties in San Diego County. These assessed values include almost all of SDG&E’s
 15 customers. However, to complete an analysis of the assessed values as would be needed for the
 16 Assessment Proposal, the IOUs would need to use the assessment data for all of the properties in
 17 the state. Table 11 below shows the assessed values corresponding to the income brackets in
 18 Table 9.

19

1 **Table 11: San Diego residential property assessed values as a proxy for income bracket**

2 [actual assessment as income proxy to use all California residential property values]

Income Bracket (000)	top % of bracket	top value of bracket
[0,100]	77.9%	\$ 587,421
[100,150]	87.1%	\$ 761,137
[150,200]	91.7%	\$ 911,343
[200,300]	95.7%	\$ 1,206,437
[300,500]	98.1%	\$ 1,718,055
[500,1000]	99.4%	\$ 2,725,000
[1000,2000]	99.8%	\$ 3,934,183
[2000,5000]	99.9%	\$ 5,900,400
[5000+]	Highest Assessment	\$ 44,314,389

3
4 I believe that this property assessment breakdown may be similar to the values one would
5 find when inserting the assessment values corresponding to all counties in California because the
6 incomes within San Diego County are not on the high end or the low end of the counties in the
7 state. Further research and analysis would be needed to confirm that assumption and before the
8 Commission should adopt this income proxy. While all assessment data is public, there is a
9 processing and distribution charge to receive the data. It was not practical to purchase all the data
10 for all counties to run the more extensive review of assessed values for my proposal. The San
11 Diego County data was sufficient for a proposal level analysis.

12 **Q. If the Commission uses the CEJA self-certification and assessment value approach to**
13 **determine income, does the Commission need a dispute resolution process?**

14 Yes. There should always be a dispute resolution process for new processes that will
15 affect customers' bills. The Commission should anticipate unexpected edge cases to arise. Those
16 edge cases will need to be evaluated and income levels revised if needed.

17 **V. The Commission should include most revenue requirement cost components into the**
18 **fixed charge with the exception of transmission, distribution, and generation costs.**

19 **Q. Did you use the E3 income-graduated fixed charge tool to calculate the fixed charge**
20 **based on the revenue requirement components that represent the fixed costs of the IOUs?**

1 Yes. The printable results are included as Attachment 2 to my testimony. The specific
2 inputs I selected are available in the attachment, but in general I included most of the cost
3 components in the fixed charge except for cost components related to transmission, distribution,
4 or generation costs. I selected cost components to align with CEJA’s position in its statutory
5 interpretation brief.³⁶

6 **Q. The E3 tool’s income brackets do not align with the income brackets that you propose.
7 Please explain the additional calculations needed to split the E3 tool outputs into the
8 proposal you designed for CEJA brackets.**

9 The outputs from the E3 tool showing the fixed charge for the \$200k+ income bracket
10 would need to be redistributed using the weighting for the 6 income brackets in my proposal.
11 The weightings to use are the ones in Table 8, column E, the column labeled “ratio of fixed
12 charge payment by customer.”

13 **VI. The Commission should incentivize electrification with a fixed charge discount
14 applied to customers’ bills that have disconnected from the gas system.**

15 **Q. What are the conservation energy efficiency, beneficial electrification, and greenhouse
16 gas emissions reduction requirements of AB 205?**

17 As noted earlier in my testimony, AB 205 requires that the fixed charged “[n]ot
18 unreasonably impair incentives for conservation, energy efficiency, and beneficial electrification
19 and greenhouse gas emissions reduction.”³⁷

20 **Q. How does the CEJA proposal meet the conservation and energy efficiency
21 requirements?**

22 Unless the Commission chooses to significantly reduce the IOUs’ approved revenue
23 requirements, Californians will continue to pay some of the highest electricity rates in the state
24 (Figure 1), the highest electricity rate in the Western U.S. (Figure 2), and some of the highest
25 electricity rates in the county. While the fixed charge proposal will lead to a small reduction in
26 the cost of electricity for low-income customers, low-income customers’ bills will not be
27 lowered enough to disincentivize efficiency or conservation. The fixed charge added to the bills
28 of non-low-income customers will increase the already high bills that Californians pay. These

³⁶ SC and CEJA Opening Brief, pp. 5-6.

³⁷ Public Utilities Code, Section 739.9(d)(2).

1 increases in electricity costs will further incentivize customers to pay close attention to their
2 energy bills, focusing on conservation and efficiency. However, since the fixed charge will
3 reduce volumetric electricity rates, customers who wish to save on their electricity bills may feel
4 stymied by fixed charges.

5 **Q. How does this proposal resolve the fixed charge/electrification conundrum and meet the**
6 **electrification and greenhouse gas (GHG) requirements?**

7 Increasing electrification reduces GHG emissions. Proposals that increase electrification
8 decrease GHG in line with the requirements in AB 205. To address this requirement, I propose a
9 discount to the income-graduated fixed charge for customers who fully electrify their homes and
10 disconnect from the gas system. I will refer to these customers as electric-only customers.

11 **Q. What data show the percentage of electric-only homes in the IOUs' service territories?**

12 The EIA's 2020 EIA Residential Energy Consumption Survey (EIA RECS) surveyed
13 homeowners in across the U.S. about their energy use. RECS data include the number and
14 percentage of homes in California that use natural gas and the homes that are electric-only. The
15 relevant EIA data are in Table 12 below.

16 **Table 12: 2020 EIA RECS Data - Fuels used in U.S. homes³⁸**

Number (million) and percentage of housing units					
	Total	Home is all-electric		Natural gas	
All homes	123.53	32.25	26%	74.65	60%
California	13.18	1.11	8%	11.54	88%

17
18 The survey found that 88% of homes in California receive natural gas service. This is the
19 second highest percentage in the U.S. according to the EIA RECS data. There are 48 other states
20 that have a smaller percentage of homes receiving gas service. The EIA data conflicts with the
21 data responses received from the IOUs regarding electric-only customer counts. The following

³⁸ EIA, Residential Energy Consumption Survey (2020), available at <https://www.eia.gov/consumption/residential/data/2020/>, (The survey also asked homeowners to report if the home used other fuels like propane, wood, fuel oil, or kerosene which is why the all-electric category percentage and the natural gas percentage do not total 100%).

1 are CEJA’s calculated percentages of electric-only residential service in each IOU territory using
2 the IOUs’ customer counts in responses to CEJA’s data requests.

- 3 • SCE electric-only: 11.0%
- 4 • PG&E electric-only: 29.0%
- 5 • SDG&E electric-only: 34.0%

6 Only SCE’s data aligns with the EIA data. CEJA has requested both PG&E and SDG&E to
7 verify their customer counts using CEJA’s electric-only definition.³⁹ Even if electric-only rates
8 are higher than the 12% reported by EIA RECS, the fixed charge revenue collection will still be
9 significant.

10 **Q. What is the structure of the proposal’s electric-only discount to the fixed charge?**

11 Because California is starting from such a small percentage of electric-only homes in the
12 IOUs’ service territories, a significant discount to the fixed charge is reasonable and will not
13 substantially impact the fixed charge revenue unless the percentage of electric-only homes grows
14 by a large amount. Thus, my fixed charge proposal includes the following discounts for
15 disconnecting from the gas system:

- 16 • Income brackets \$500k and below: 100% discount
- 17 • Income brackets \$500k and above: 50% discount

18 As more homes are electrified, the electrification discount should decrease and eventually be
19 phased out. The California Air Resources Board (CARB) recently adopted its 2022 State
20 Strategy for the State Implementation Plan that includes its development of “zero-emission
21 standards for space and water heaters sold in California.”⁴⁰ The new standard will require all
22 new space and water heaters to be zero emissions starting in 2030.⁴¹ Because customers will be
23 forced to electrify their space and water heating starting in 2030, customers should no longer
24 receive a discounted fixed charge for transitioning to electric-only energy service. For that

³⁹ SDG&E provided supplemental information regarding electric-only customers. It stated that 9% of its electric customers reside in SoCalGas gas distribution territory. Thus, the SDG&E electric only percentage could be as low as 25%.

⁴⁰ California Air Resources Board (CARB), 2022 State Strategy for the State Implementation Plan (September 9, 2022), pp. 102-103, available at https://ww2.arb.ca.gov/sites/default/files/2022-08/2022_State_SIP_Strategy.pdf.

⁴¹ *Id.*

1 reason, as of 2030, the fixed charge discount should rapidly phase out. My proposal would phase
2 out the electric-only discount on the schedule shown in Table 13 below.

3 **Table 13: Fixed Charge Discount for Disconnection from the Gas System**

Year	Discount on fixed charge <500k income brackets	Discount on fixed charge >500k income brackets
2030	100%	50%
2031	80%	40%
2032	60%	30%
2033	40%	20%
2034	20%	10%
2035	0%	0%

4
5 The electric only discount to the fixed charge will be reduced by 20% each year until 2035 when
6 the discount will be eliminated entirely.⁴²

7 **VII. The Commission should require the IOUs to complete a thorough communication**
8 **and outreach process to ensure that the self-certification process is accessible and**
9 **understandable.**

10 **Q. Should the IOUs conduct education and outreach to their customers regarding the**
11 **income-graduated fixed charge?**

12 Yes. The IOUs should conduct education and outreach to their customers regarding the
13 income-graduated fixed charge. Specifically, the IOUs should attempt to communicate the
14 importance of responding to the income self-certification questionnaire. The IOUs should
15 explain in the communication, the process and reason why the IOUs are asking for the
16 customer’s income. The education document or documents should be distributed in the most
17 spoken languages for each county to overcome language barriers.

18 While communication is important, the secondary check on income verification, the
19 assessed value of the residential property, should move all low-income customers into the lowest

⁴² With a myriad of federal, state, and local programs incentivizing and promoting electrification, it is challenging to estimate with greater certainty the rate at which electrification will grow in California. Post-implementation reassessments would be important to ensure that fixed charge discounts track state electrification needs and promote affordable just rates for customers.

1 income tier with a \$0 fixed charge. Even with this process in place, education remains important
2 so that customers have an opportunity to understand the fixed charge process.

3 **Q: Does this conclude your opening testimony?**

4 It does.