

Docket No.: A.22-07-005  
Exhibit No.: UCAN-01  
Date: June 2, 2023  
Witness: Mark Fulmer

**REBUTTAL TESTIMONY OF MARK FULMER ON BEHALF OF THE UTILITY  
CONSUMERS' ACTION NETWORK CONCERNING THE ESTABLISHMENT OF A  
RESIDENTIAL INCOME-GRADUATED FIXED CHARGE**

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1 **I. INTRODUCTION**

2 **Q: Please state your name and business address.**

3 A: My name is Mark Fulmer. I am a Principal at MRW & Associates, LLC (MRW). My  
4 business address is 1736 Franklin Street, Suite 700, Oakland, California. My professional  
5 and educational qualifications are provided in Attachment A.

6 **Q: Have you previously testified as an expert witness?**

7 A. Yes. I have previously testified before the California Public Utilities Commission  
8 (CPUC) on behalf of numerous clients. I have also submitted testimony in proceedings  
9 before the Federal Energy Regulatory Commission and state utility commissions in  
10 Arizona, Colorado, Hawaii, New Mexico, Nevada, Pennsylvania, Rhode Island, and  
11 Washington. My resumé and a full list of my sworn testimony is provided in Attachment  
12 A.

13 **Q: On whose behalf are you testifying?**

14 A. This testimony is being provided on behalf of the Utility Consumers' Action Network  
15 (UCAN). UCAN is a 501(c)(3) non-profit public benefit corporation dedicated to  
16 protecting and representing the interests of residential and small business customers in  
17 the San Diego Gas & Electric service territory. UCAN has a thirty-nine-year history of  
18 intervening in CPUC proceedings on behalf of SDG&E customers. UCAN remains  
19 concerned about the costs and benefits to ratepayers of the income-graduated fixed  
20 charge (IGFC) proposals.

21 **Q: What is the purpose of your testimony?**

1 A: I have analyzed the proposals offered by parties in their opening testimonies filed. The  
2 purpose of my testimony is to present the results of my analysis and subsequent  
3 recommendations on the IGFC proposals.

4 **Q: Please summarize UCAN's recommendations and conclusions.**

5 A: UCAN's primary focus is on the implementability of the IGFC in general and on fair  
6 income verification in particular.

7 **Q: What is meant by fair and implementable?**

8 A: By fair, I mean that the fixed charge must not be burdensome to any residential customer,  
9 and in particular low- and middle-income customers. Second, and related, implementable  
10 means that each residential ratepayer will be placed automatically, that is, with no action  
11 needed by the ratepayer, into the correct IGFC tier, and that the process is not excessively  
12 costly or burdensome to the utility (and eventually its ratepayers). While setting the  
13 income brackets and fixed charge amounts received more attention in most parties'  
14 proposals, if they cannot be reliably implemented and fairly implemented, the effort will  
15 be unproductive and a waste of utility and stakeholder resources.

16 **Q: What do you recommend?**

17 A: To date, SEIA's recommended rates and implementation process is the only one that  
18 could be implemented and would not harm residential ratepayers. All the other proposals  
19 contain unreliable and very complex income verification protocols, none of which could  
20 be fleshed out and implemented in the timeframe ordered in the instigating legislation.  
21 As such, the commission should implement SEIA's recommended structure on an interim  
22 basis. The Commission should then, using the Joint IOU proposal as a starting point,  
23 revisit the issue of income verification along with the nine criteria presented here.

1 Producing detailed rate and tiering structures now without a way to reliably place  
2 customers in the correct income bracket is putting the cart before the horse.

3 **Q: Why not keep the status quo until a fair and implementable IGFC be implemented?**

4 A: I do not believe that this is an option. The ordering legislation states, “The commission  
5 shall, no later than July 1, 2024, authorize a fixed charge for default residential  
6 rates.”<sup>1</sup> The briefs and reply briefs filed on January 23, 2023 and February 13, 2023  
7 addressing the interpretation of certain details contained in Assembly Bill 205, none  
8 of which suggested that July 1, 2024 is anything but a deadline. Thus, the  
9 Commission must approve an IGFC at its June 2024 voting meeting, at the latest.

10 **II. CRITERIA TO CONSIDER WHEN EVALUATING THE**  
11 **IMPLEMENTABILITY OF INCOME-GRADUATED FIXED CHARGED**  
12 **PROPOSALS**

13 **Q: Please provide some background on the income verification issue.**

14 A: As noted above, UCAN believes that a fair and proactive income verification protocol is  
15 key to an IGFC that achieves the rates’ goals. The Commission and Commission Staff  
16 have rightly included income verification as a major hurdle from the beginning. Per the  
17 November 2 Scoping Memo, the Assigned Commissioner established Tack A, which  
18 included in scope “How should income levels be verified, and how often should  
19 verification occur?”<sup>2</sup> This issue was discussed as part of the November 29, 2022  
20 workshop, as the sole topic of the December 21, 2022 workshop, with follow-up at the  
21 February 1, 2023 workshop.

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<sup>1</sup> AB 205 amended Pub. Util. Code Section 739.9 (e)(1)

<sup>2</sup> Scoping memo at 3.

1           A major challenge discussed at the workshops was how to get the income data  
2 needed to place customers in the correct fixed charge tier and periodically verify that the  
3 customers' assigned tier continues to be correct. The simplest solution identified was to  
4 have the data provided or processed by the California State Franchise Tax Board  
5 ("FTB"). However, parties at the workshops agreed that FTB could not legally disclose,  
6 or even verify, income data without written taxpayer consent, and that the FTB data set  
7 was not complete (i.e., a fraction of low-income residents do not file state income taxes  
8 and thus FTB has no data on them). Utility representatives also identified other  
9 difficulties, such as linking tax records to households and to utility accounts. Other  
10 proposals suggested piggy-backing the income verification on existing low-income  
11 programs such as CARE, FERA, SNAP or Lifeline. The challenge identified with these  
12 programs is that they required customer-reported income and household size along with  
13 verification. Furthermore, they only addressed a fraction of residential ratepayers, still  
14 requiring other data sources for middle and higher income ratepayers.

15 **Q: Do you find that any of the proposals submitted in the opening testimonies**  
16 **overcome these hurdles?**

17 A: Although many parties admirably addressed income verification head-on, as I discuss  
18 below, I do not find that any provided a solution that fully comports with the UCAN  
19 criteria.

20 **Q: Given your conclusion that the income verification proposals cannot be**  
21 **implemented in the period ordered by the legislation, what do you recommend?**

22 A: To prevent harm to ratepayers, especially low-income ones, the Commission should  
23 establish clear criteria for fair implementation against which income verification should

1 be measured before approving any IGFC rates. This would best be done through a  
2 workshop and comment process. Once a set of criteria is established, the Commission  
3 should order a second round of income verification proposals, requiring each proposal  
4 sponsor to demonstrate how their proposal meets, or does not meet, each criterion. At  
5 that point, the Commission could set a schedule to implement a permanent IGFC.

6 In the meantime, given that the Commission must by legislative order approve an  
7 IGFC by July 1, 2024, an IGFC that (1) does not have steeply graduated fixed charges  
8 and (2) relies upon existing program tiers—CARE and FERA—to set the income  
9 brackets is the most implementable and fair solution. The only proposal so far that meets  
10 these two criteria is that of SEIA.

11 **Q: What criteria should the Commission use to determine if an IGFC is**  
12 **implementable?**

13 A: UCAN overarching criterion is that any method to assign residential ratepayers to income  
14 brackets must place at least 99.9% (999 or out 1,000) of the accounts into the correct tier  
15 without customer action. Of the 0.1% that are not placed in the correct tier, the error  
16 should be skewed towards preventing lower income customers from being placed in a  
17 higher income bracket. Based on the most recent Quarterly Customer Data Report, there  
18 are about 10 million residential accounts between the three investor-owned utilities  
19 (IOUs) with over 4.5 million in SCE, 4.6 million in PG&E, and 580,000 in SDG&E  
20 service territory.<sup>3,4,5</sup> Assuming the income bracket placement error of 0.1% would still  
21 result in placing over 50,000 customers into the wrong income bracket.

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<sup>3</sup> Quarterly Customer Data Reports <https://www.sce.com/regulatory/energy-data---reports-and-compliances>

<sup>4</sup> PG&E Energy Data Request - Public Datasets [https://pge-energydatarequest.com/public\\_datasets](https://pge-energydatarequest.com/public_datasets)

<sup>5</sup> Energy Data Request Program <https://energydata.sdge.com/>

1 To meet this criterion, UCAN specifically recommends the following considerations,  
2 many of which have been noted and discussed at workshops and in parties' opening  
3 testimonies.

- 4 1) The IGFC tier assignment should not require customer action or explicit consent.
- 5 2) The IGFC tier assignment process must protect customer's personal information.
- 6 3) The IGFC tier assignment must account for household size in addition to income.
- 7 4) The IGFC tier assignment process must accurately account for ratepayers who do  
8 not pay state income taxes.
- 9 5) The IGFC tier assignment process must accurately account for master metered  
10 accounts.
- 11 6) The IGFC tier assignment process must accurately place new accounts into the  
12 correct income bracket and routinely verify income and household data to ensure  
13 accurate ongoing tier assignment.
- 14 7) The IGFC tier assignment process must account for non-wage income so that  
15 customers with income from other sources such as investments are not  
16 erroneously placed in low tiers.
- 17 8) There must be an understandable and timely process for customers to appeal  
18 their tier assignment.
- 19 9) The implementation cost cannot be prohibitive.

20 **Q: The Joint IOUs also recommended a set of income verification objectives and**  
21 **considerations. How does it compare to yours?**

22 A: The Joint IOUs primary objective is to assign customers to the correct Income Bracket,  
23 and secondarily to provide a process to allow any customers to appeal their initial income  
24 bracket assignment.<sup>6</sup> The Joint IOU considerations to be "carefully balanced" are: "(1)  
25 customer impact and acceptance, (2) accuracy, (3) cost to implement, (4) complexity, (5)

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<sup>6</sup> Joint IOUs at 55.



1 implementation timing, and (6) an accessible and understandable appeals process if a  
2 customer seeks a reassessment of their household income bracket assignment.”<sup>7</sup>

3 **Q: How do these income verification objectives and considerations compare to yours?**

4 A: The Joint IOUs primary objective, to assign customers to the correct income bracket, is  
5 consistent with UCAN’s recommendation that at least 99.9% of the accounts be placed  
6 into the correct income bracket without customer action, although it is not as specific nor  
7 stringent. The Joint IOUs evaluation criteria are also similar, although they reflect more  
8 the perspective of an entity having to implement the proposal rather than the ratepayers’  
9 perceptive. Even so, UCAN appreciates the Joint IOUs’ explicitly calling out customer  
10 privacy, accuracy, minimization of the mis-categorization of low-income customers, the  
11 simplicity of the appeals process, and the minimization of implementation costs.

12 **Q: Returning to UCAN’s recommendations, please explain the first consideration, “The  
13 IGFC tier assignment should not require customer action or explicit consent.”**

14 A: Most of the options mentioned in opening testimonies for income verification would  
15 require affirmative customer opt-in. UCAN believes that requiring customers to  
16 affirmatively provide income data to their utility or a third-party would be unduly  
17 burdensome on both the ratepayers and on the implementing entity, be it the IOU or a  
18 third party. First, it will be challenging to get residential ratepayers attention – many, if  
19 not most, customers pay little attention to their electric bills, bill inserts, or mailers sent  
20 by their utility or CCA.<sup>8</sup> For example, many customers say that they do not know what a  
21 Community Choice Aggregator is, let alone that they are being served by one.<sup>9</sup> The

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<sup>7</sup> Joint IOUs at 56.

<sup>8</sup> <https://www.jdpower.com/business/press-releases/2022-electric-utility-residential-customer-satisfaction-study>

<sup>9</sup> NREL, *Community Choice Aggregation: Challenges, Opportunities, and Impacts on Renewable Energy Markets*, 2019 <https://www.nrel.gov/docs/fy19osti/72195.pdf> at 26

1 Commission cannot assume all, or even most, residential customers will take an action,  
2 particularly an action as intrusive as providing personal income and household makeup  
3 data, even if that action financially benefits the customer.

4 The problem is further illustrated by the fact that low-income ratepayers are not  
5 responsive when requested to verify income for the CARE/FERA program. As noted by  
6 the Joint IOUs, “Each year, the Joint IOUs require approximately 6%-8% of their  
7 CARE/FERA participants to verify their stated information or else they will be removed  
8 from the program. Of the verification group, only about 28% respond and complete the  
9 verification process; the remaining 72% who do not reply are removed from the opt-in  
10 CARE/FERA programs.”<sup>10</sup> CARE/FERA eligibility in place of a third party highlights  
11 the lack of reliability of the CARE/FERA program verification process. The application  
12 is an open enrollment process that does not initially require proof of income or proof of  
13 Public Assistance program eligibility (SNAP, Medi-Cal, TANF, etc.). The IOUs would  
14 also need to tackle the high rate of customer -non responsiveness in the post-enrollment  
15 period for this process to be reliable.<sup>11</sup>

16 **Q: Please explain the second consideration, “The IGFC tier assignment process must**  
17 **protect customer’s personal information.”**

18 A: Ratepayers’ income information should be accorded the utmost protection. Income data  
19 collected for IGFC tier placement could be used for target marketing, for debt collections  
20 or for one of any number of other purposes.

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<sup>10</sup> Joint IOUs at 69

<sup>11</sup> Joint IOUs at 62.

1           Additionally, the customer’s assigned income bracket should also be protected.  
2           For example, a landlord, knowing that a tenant is in the lowest tier, could see the tenant  
3           as a higher risk and take steps, be they legal or otherwise, to encourage the tenant to  
4           move so that they could be replaced by a tenant with a higher income, which presumably  
5           could be charged more or be less likely to miss rent. Or if the landlord sees that a tenant  
6           is on a higher-income bracket, could impose a larger rent increase because of the  
7           perception that the tenant is more financially able, despite not knowing anything else  
8           about the tenant’s actual ability to pay.

9           In making this point, I fully believe that no party in this docket wants income data  
10          to be publicly available or easily disclosed or even easily inferred by a third party. I  
11          simply want to ensure that data privacy is explicitly addressed in any income verification  
12          protocol.

13 **Q: Please explain the third consideration, “The IGFC tier assignment must account for**  
14 **household size in addition to income.”**

15 A: As a number of parties noted, simple household income is not sufficient to show the  
16 household’s ability to absorb fixed charges. This includes the Joint IOUs, who offer  
17 verification protocols based on a fraction of the federal poverty line (FPL) rather than  
18 simple income.<sup>12</sup> I fully acknowledge that adding household size complicates the  
19 “income” verification process, but this is a case where the added complexity is fully  
20 justified. The financial impact of higher electric bills on a household of two with an  
21 income of \$30,000 is very different than a household of four or more at that same income

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<sup>12</sup> Joint IOUs at 43.

1 level. Like with the CARE and FERA programs, this differing level of need should be  
2 accounted for when setting the income brackets.

3 **Q: Please explain the fourth consideration, “The IGFC tier assignment process must**  
4 **accurately account for ratepayers who do not pay state income taxes.”**

5 A: The Joint IOUs estimate that the FTB does not have income information for up to 20% of  
6 California households who do not file any state income tax return.<sup>13</sup> They further note  
7 that the “pool of customers who do not file state tax returns are likely to predominantly  
8 be part of lower-income households.”<sup>14</sup> If these assertions are even close to correct, then  
9 alternative methods of placing these customers into the correct tiers would be needed.

10 **Q: Please explain the fifth consideration, “The IGFC tier assignment process must**  
11 **accurately account for master metered accounts.”**

12 A: All three IOUs serve master-metered customers that pay residential rates. SDG&E  
13 maintains Schedule DM for master-metered housing and maintains Schedules DS, DT,  
14 and DT-RV for master-metered housing with submetering. Bills for master-metered  
15 accounts are not paid by households but by businesses or organizations that operate the  
16 master-metered property. Therefore, it is not clear how any tier assignment process  
17 would place such properties into an income bracket. For large buildings with a single  
18 account, the amount of the fixed charge would be a small part of the bill, but if there are  
19 master-metered properties with fewer units with low-income tenants, an equitable tier  
20 assignment could be problematic.

21 The situation is even more complicated for master-metered properties with  
22 submetering. Submetered tenants are not billed by the IOUs, but by the operator of the

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<sup>13</sup> Joint IOUs at 76.

<sup>14</sup> *Ibid.* at 77.

1 master-metered property. Per California Public Utilities Code Section 739.5(a),  
2 submetered residents pay for electric service at the “applicable” rate charged by the IOU  
3 which would otherwise serve those residents. Once that rate has an IGFC, the master-  
4 metered property operator would presumably have the responsibility to place the  
5 submetered tenants in the correct income bracket. Whatever IGFC rate structure is  
6 ultimately adopted, it must be feasible for master-metered properties with submetering to  
7 place submetered tenants into the correct tier. At a minimum, if a third-party verification  
8 service is used to place households into income brackets, the master-metered properties  
9 require access to this verification service along with the IOUs.

10 **Q: Please explain the sixth consideration, “The IGFC tier assignment process must**  
11 **accurately place new accounts into the correct income bracket and routinely verify**  
12 **income and household data to ensure ongoing tier assignment.”**

13 A: Assigning ratepayers to the proper income bracket during the initial implementation of  
14 the IGFC will be a challenge. However, income verification and tier assignment must  
15 also function properly for new accounts and routine account turnover. That is, residential  
16 ratepayers establishing new accounts must be automatically placed in the proper tier.  
17 Furthermore, incomes and household sizes change. As noted by the Joint IOUs, year over  
18 year income variation reached 25 percent or more for a quarter of households between  
19 2004 and 2005.<sup>15</sup>

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<sup>15</sup> Joint IOUs at 63, footnote 91, citing Congressional Budget Office, Recent Trends in the Variability of Individual Earnings and Household Income (June 2008), available at <https://www.cbo.gov/publication/41714?index=9507>

1 **Q: Please explain the seventh consideration, “The IGFC tier assignment process must**  
2 **accurately account for non-wage income so that customers with income from other**  
3 **sources such as investments are not incorrectly placed in low tiers.”**

4 A: Whatever source is used for determining income, it must be able to account for all  
5 household income, not simply wages. Per the Joint IOU Testimony, “Based on IRS data  
6 for federal tax returns, about 20% of individuals residing in California who filed a federal  
7 tax return had no income from salary or wages which suggests that the individuals in this  
8 20% of California’s population may not show up in payroll data.”<sup>16</sup> This could cause an  
9 undercounting of household income and result in high income households receiving a  
10 low-income tier assignment.

11 **Q: Please explain the eighth consideration, “There must be an understandable and**  
12 **timely process for customers to appeal their tier assignment.”**

13 A: As noted above, UCAN could consider a verification process that automatically places  
14 999 out of 1,000 customers into the correct income bracket to be reasonable. However,  
15 that would still mean that about 50,000 customers statewide would initially be placed on  
16 the incorrect tier and thousands annually would be mis-assigned on an ongoing basis.  
17 Ratepayers will have to be able to easily find out what the process is to appeal an income  
18 bracket assignment, follow that process, and have a timely (i.e., within two billing cycles)  
19 resolution of the appeal. Furthermore, a process should be in place for a secondary  
20 appeal to the Commission if the ratepayers still believe that they are incorrectly assigned  
21 to a (presumably) higher income bracket.

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<sup>16</sup> Joint IOUs at 67-68.

1 **Q: Please explain the ninth consideration, “The implementation cost cannot be**  
2 **prohibitive or require excessive effort by the implementor.”**

3 A: First, UCAN notes that excessive effort necessarily implies excessive costs. UCAN also  
4 notes that the Joint IOUs pointed to the costs to verify program participant income and  
5 eligibility of two existing low-income programs. The Joint IOUs note that the LifeLine  
6 program costs on average \$11.80 per customer-year,<sup>17</sup> while the 2022 cost to verify  
7 incomes for CARE and FERA participants is about \$9 per customer verified.<sup>18</sup> Thus,  
8 even assuming economies of scale drop the costs by 50%, about \$5 per account per year,  
9 it would still cost over \$50 million per year to perform the ongoing customer  
10 verifications. If all the other eight considerations can be met, this might be justifiable.  
11 But if not, UCAN questions the wisdom of fully implementing such a program.

12 **Q: These considerations are expansive. Must an income verification protocol for tier**  
13 **assignment fully meet all of these before it should be implemented?**

14 A: Realistically, there will always be tradeoffs. However, these tradeoffs must be made  
15 consciously with full knowledge of the implications of the tradeoffs. For example, is it  
16 acceptable for a protocol to place 99% of the ratepayers in the proper tier but misplace  
17 1% of ratepayers, including low income customers, into the highest tier? Or if a protocol  
18 properly assigns the same fraction 99% of the time but the remaining 1% are higher-  
19 income households placed in the lowest tier? Or if a process can be developed that is  
20 reliable and fair but costs tens of dollars per year per account?

21 Moving forward with a partially baked process for income verification assuming  
22 that the details will be worked out later is a recipe for disaster. UCAN strongly urges the

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<sup>17</sup> Joint IOUs at 69.

<sup>18</sup> Joint IOUs at 69.

1 Commission vet to the fullest extent possible any income verification and tier assignment  
2 process before implementation, so as to minimize unintended consequences and  
3 consciously and rationally weigh the tradeoffs before implementation.

4 **III. PARTIES PROPOSALS FOR PLACING RATEPAYERS IN INCOME**  
5 **BRACKETS**

6 **Q: Please summarize the parties' recommendations concerning placing residential**  
7 **ratepayers into income brackets.**

8 A: Table 1, below, summarizes the testimonies concerning income verification, along with  
9 the major data sources each party suggests be used. Table 2 shows how the proposals (but  
10 for the small and multijurisdictional utilities) compare to UCAN's recommended  
11 evaluation criteria.

12



1 *Table 1. Summary of Parties Proposals for Income Verification*

Party	CARE/ FERA	State Social Services	Credit Agencies	FTB	Explanation
Joint IOUs	X	X		X	3rd Party supervised by CPUC using FTB data. Fill in low income using CalFresh. Remaining gaps via customer verified income or census data. Requires legislation. <sup>19</sup>
Cal Advocates	X		X		Default all non-CARE/FERA into highest tier, allow customers who believe they belong in a lower tier to allow IOU to access Equifax to access reported income. <sup>20</sup> Use FTB data when available.
NRDC/TURN	X		X	X	3 <sup>rd</sup> Party administrator. Default all non-CARE/FERA into highest tier. Administrator uses “income estimation service” to move some to middle and lower tiers. Can opt into verification to move to lower tier. Eventually use FTB data. <sup>21</sup>
CEJA	X				Default CARE/FERA into lowest tier; all others self-certify income, which would be “spot-checked” against assessed value of service address or median income of census tract for renters. If not self-certified or fail self-certification, then tier based on assessed value of service address or median income of census tract for renters. <sup>22</sup>
Sierra Club					Held for reply testimony.
SEIA	X				Use CARE, FERA and everyone else at the three income brackets <sup>23</sup>
Pacificorp	X				Self-attestation <sup>24</sup>
Liberty	X			X	State agencies process income verification applications and remit information directly to Liberty. Or self-attestation, with non-attesters placed in highest tier. <sup>25</sup>
BVES		X		X	3 <sup>rd</sup> party <sup>26</sup>

<sup>19</sup> Joint IOUs at 76-77.

<sup>20</sup> Cal Advocates Exhibit -02C

<sup>21</sup> NRDC-TURN-01 at 34-39.

<sup>22</sup> CEJA-01 at 2-3.

<sup>23</sup> SEIA at i.

<sup>24</sup> PAC/100 at 21-22

<sup>25</sup> Liberty-01 at 5.

<sup>26</sup> BVES-1 at 11

1 **Table 2. Parties Proposals versus UCAN Recommended Evaluation Criteria**

	Does not require ratepayer action or consent	Protects ratepayer personal information	Accounts for household size	Accounts for ratepayers who do not pay taxes	Accounts for metered accounts	Accounts for new accounts and Regular updates	Accounts for non-wage income	Clear and timely Appeal process	No Cost prohibitive
Joint IOUs	Part.	Yes	Yes	Yes	No	Part.		Yes	TBD
Cal Advocates	No		No	Yes	No	Yes	No		TBD
TURN & NRDC	No		No	Yes	No	Yes	No		TBD
CEJA	No		No	Yes	No	Yes		No	TBD
SEIA	Part.		Yes	Yes	No	Part.	Yes	Yes	No

2

3

4 **Q: Any there any common features across the recommendations?**

5 A: Yes. Setting aside the small and multi-jurisdictional utilities, all parties recommend using  
 6 the existing CARE and FERA customer groups as income classes but differ significantly  
 7 beyond that.

8 **Q: Please describe Cal Advocates’ and NRDC/TURN’s proposals.**

9 A: Cal Advocates and NRDC/TURN each recommend using credit agency information to  
 10 verify non-CARE and FERA customer incomes in the near term, but eventually, when  
 11 the legal issues are resolved, use FTB data. NRDC/TURN income brackets divide  
 12 customers into three income levels divided by CARE/FERA customers, non-

1 CARE/FERA customers with household incomes above or below \$150,000.<sup>27</sup> In the  
2 near-term, customers enrolled in CARE and FERA would be automatically enrolled into  
3 the lowest income charge tier and all other customers assigned to the highest tier (income  
4 over \$150,000). A third-party administrator would contract with a third-party income  
5 estimation service (e.g., Experian’s Consumer View and Equifax’s Income 360) to  
6 identify low-incomer customers that are misclassified into the highest tier. Customers  
7 would then be informed of their income bracket assignment and would be prompted to  
8 opt-in for self-attestation income verification. Customers would be granted a period for  
9 appeals and then the third-party administrator would finally share the customer tier  
10 assignments with the IOUs.<sup>28</sup> In the long run, NRDC/TURN would use databases  
11 (California Franchise Tax Board) to provide the 3<sup>rd</sup> Party Administrator all the data it  
12 would need for income bracket assignment.<sup>29</sup>

13 Cal Advocates’ proposal is similar. Like NRCD/TURN, Cal Advocates would  
14 place CARE and FERA customers in the lowest income bracket and all others in the  
15 highest income bracket.<sup>30</sup> Customers would have an opportunity to move to a lower  
16 income bracket by authorizing their utility to use the Equifax Work Number service to  
17 verify that they are eligible for the lower tier.<sup>31</sup>

18 **Q: How does this proposal comport with the seven criteria above?**

19 **A:** First, both proposals require action from non-CARE/FERA customers who wish to be  
20 placed into a lower bracket. As discussed above, this is not reasonable and is punitive

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<sup>27</sup> NDRC - TURN at 10.

<sup>28</sup> NDRC - TURN at 35.

<sup>29</sup> NDRC - TURN at 34

<sup>30</sup> Cal Advocates at 2-2.

<sup>31</sup> Cal Advocates at 2-6.

1 against middle-income customers who, despite the utility's best educational efforts, will  
2 remain ignorant of the income-tiered rates or reticent to provide personal financial data to  
3 the utility or its proxy. And while the first stage defaulting of CARE/FERA customers  
4 into the lowest income bracket would not require these customers' explicit consent or  
5 direct customer action, the third stage involving customer appeals would require these  
6 customers to provide income documentation during the appeal period. Additionally, I  
7 suspect that many non-CARE/FERA customers, including subtenants and customers with  
8 non-wage income are also likely to be misclassified under an income estimation service  
9 (e.g., Equifax Income 360). These third-party income estimate services are not based on  
10 income data records but instead often use predictive modeling to estimate household  
11 income based on address and household name.<sup>32</sup> As noted earlier, the amount of  
12 customer misclassification that could result from the combination of CARE/FERA  
13 enrollment and income estimation services would require significant levels of customer  
14 responsiveness, customer outreach, and administrative costs to ensure that misclassified  
15 customers can provide proof of income.

16 **Q: Please describe CEJA's proposal to place residential ratepayers into income**  
17 **brackets.**

18 A: The CEJA proposal focuses on allocating a fixed charge among income classes in a way  
19 that represents the same energy costs as a total percentage of total income within its  
20 seven proposed income brackets.<sup>33</sup> To verify customer income, CEJA proposes a  
21 complex process that begins with self-attestation. All self-certificated homeowners or  
22 renters of single family homes would be checked against the assessed value of the

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<sup>32</sup> NDRC - TURN Joint Opening Testimony 22-07-005 p. 36.

<sup>33</sup> CEJA Testimony at 17.

1 customers address or zip code as a proxy for income.<sup>34</sup> Any mismatches between the  
2 property value proxy and self-certification would require a customer to send additional  
3 documentation such as W-2 income, non-wage income, or proof of public assistance. For  
4 renters, rather than relying upon assessed property value the self-attestation would be  
5 checked against at the assigned the median income of the census tract, unless the  
6 multiunit dwelling is in a disadvantaged community in which case the customer will be  
7 placed in the lowest income (CARE/FERA) bracket. Those not self-attesting would be  
8 placed on the tier corresponding to their proxy income based on the property value or the  
9 census tract median income.<sup>35</sup>

10 **Q: How does this proposal comport with your nine criteria above?**

11 A: My primary concerns with CEJA's is that it lacks accuracy and requires significant  
12 customer action (e.g., providing income verification materials to their utility) to place  
13 non-CARE/FERA customers into the correct income bracket. I believe that CEJA's use  
14 of zip codes, census tract, or household value data as a proxy for income would result in  
15 significant mis-identification actual incomes. The potentially high degree of error and the  
16 added complexity of CEJA's seven-plus income brackets would most likely result an in  
17 enormous number of customer appeals. The inaccuracy from predictive modeling of  
18 income brackets could also destabilize IOU revenue collection and resulting rates.<sup>36</sup> It is  
19 important for the process of placing customers into income brackets to be fair and  
20 accurate as well as predictable. Using a complex data model would not yield accurate  
21 results and would result in customer appeals far beyond administrative capacity.

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<sup>34</sup> CEJA Testimony at 24.

<sup>35</sup> CEJA Testimony at 27.

<sup>36</sup> Joint IOUs-01 at 74.

1           Beyond this, the greatest problem that I see is with respect to this proposal is  
2 using assessed property values as a proxy for income. In California, residential property  
3 values are assessed at the purchase price when the house sells. After that, the assessed  
4 value increases with an inflation rate. Thus, homes that were purchased 20 or 30 years  
5 ago will have a vastly different assessed value than an identical home purchased this past  
6 year. As such, assessed property value is a poor proxy for income.

7 **Q: Please summarize how the Joint-IOUs would place residential ratepayers into**  
8 **income brackets.**

9 A: First, I note that the Joint IOUs provided much-needed background on the various income  
10 verification options, which was appreciated. The Joint IOU’s ultimate proposal would  
11 have a single, state-wide 3<sup>rd</sup> party agent, funded by the State and supervised by the  
12 CPUC, assign each customer to an income bracket.<sup>37</sup> Although details were not included  
13 in the testimony, the proposal would have the 3<sup>rd</sup> party verifier “use a data model that has  
14 access to Franchise Tax Board (FTB), Department of Social Services (DSS), and census  
15 block data to place customer households in the correct Income Bracket”<sup>38</sup> Each customer  
16 would be assigned to an Income Bracket based on available FTB data specific to their  
17 household, and then be given an opportunity to appeal.<sup>39</sup> However, since roughly 20% of  
18 state residents do not file state income tax returns, the Joint IOUs suggest that  
19 “additional data from the California DSS CalFresh program should also be included as  
20 part of the verification process, to provide additional income data for lower-income  
21 customers who may not be included in the FTB data set.”<sup>40</sup> The Joint IOUs acknowledge

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<sup>37</sup> Joint IOUs-01 at 55.

<sup>38</sup> *Ibid.* at 55.

<sup>39</sup> *Ibid.* at 76.

<sup>40</sup> *Ibid.* at 77.

1 that “An amendment to the existing California Revenue & Taxation Code would appear  
2 necessary to allow the FTB to accomplish mass provision of individuals’ income data to  
3 any outside entity administering the IGFC categorization and appeals process,”<sup>41</sup> and that  
4 accessing the additional data needed to place non-tax filers in the correct income bracket  
5 would require direct customer consent.<sup>42</sup>

6 **Q: How does this proposal comport with the nine criteria above?**

7 A: The Joint IOU proposal makes efforts to address many of the criteria, particularly  
8 minimizing the need for direct customer action. I also appreciate the fact that the  
9 proposal does not rely fully on ratepayer funding. However, the proposal does not  
10 address master-metered accounts and cannot be fully fleshed out in time for a July 1,  
11 2024 Commission decision. Additionally, I am skeptical of the practicality of linking  
12 household income, household size and utility account sufficiently smoothly and  
13 accurately so that the amount of IGFC rate tier assignment appeals will not be  
14 prohibitively large.

#### 15 **IV. RECOMMENDATIONS**

16 **Q: Given your evaluation criteria and the proposals made in opening testimonies, what  
17 do you recommend?**

18 A: In order to meet the statutory deadline, the commission should adopt an IGFC with three  
19 tiers based on existing customer groups (CARE, FERA, other) with the fixed charges  
20 being low with only a very modest increase from one fixed charge tier to the next.

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<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*

1 SEIA's is the only proposal presented that can meet this. In parallel, the Commission  
2 should take the Joint IOU income verification process, but not necessarily its income  
3 brackets or tiered fixed charges, as a starting point and work with the IOUs, interested  
4 parties and necessary state actors, including the legislature, to come up with a long-term  
5 IGFC that can meet UCAN's criteria.

6 **Q: Does this conclude your testimony?**

7 **A: Yes.**



**ATTACHMENT A: WITNESS QUALIFICATIONS**

# MARK E. FULMER

## PROFESSIONAL EXPERIENCE

### **Principal** **MRW & Associates, LLC** **(1999 - Present)**

Conduct economic and technical studies in support of clients involved in regulatory and legislative proceedings and power project development. Advise clients on the economic issues associated with taking electricity and natural gas service from non-utility sources or self-generating power. Work includes expert testimony on rate matters; economic analysis of end-use energy-efficiency projects, retail rate and wholesale price forecasting, and pro forma analysis of cogeneration and distributed generation facilities.

### **Project Engineer** **Daniel, Mann, Johnson & Mendenhall** **(1996 - 1999)**

Acted as project manager and technical advisor on energy efficiency projects. Work included management of PG&E program to promote innovative energy efficient technologies for large electricity users. Coordinated the implementation of an intranet-based energy efficiency library. Directed technical and market analyses of small commercial and residential emerging technologies.

### **Associate** **Tellus Institute** **(1990-1996)**

Advised public utility commissions in five states on electric and gas industry deregulation issues. Submitted testimony on the rate design of a natural gas utility to the Pennsylvania Public Utilities Commission. Testified before the Hawaii PUC on Behalf of a gas distribution utility concerning a competing electric utility's demand-side management plan. Analyzed national energy policies for a set of non-governmental agencies, including critiquing the DOE's national energy forecasting model. Developed model to track transportation energy use and emissions and used the model to evaluate state-level transportation policies. Developed model to track greenhouse gas emission reductions resulting from state-level carbon taxes.

### **Research Assistant** **Center for Energy and Environmental Studies, Princeton University** **(1988-1990)**

Researched the technical and economic viability of gas turbine cogeneration using biomass in the cane sugar and alcohol industries. First researcher to apply "pinch" analysis and a mixed-integer linear programming model to minimize energy use in cane sugar refineries and alcohol distilleries.

## EDUCATION

M.S.E., Mechanical and Aerospace Engineering, Princeton University, 1991  
B.S., Mechanical Engineering, University of California, Irvine, 1986

## Selected Publications

1. A Technical and Economic Assessment of the Co-Production of Electricity and Alcohol from Sugar Cane. Presented at the *International Engineering Conference on Energy Conversion (IECEC-90)*. American Institute of Chemical Engineers. New York, NY. August 1990. Principal author and presenter.
2. Cogeneration Applications of Biomass Gasifier/Gas Turbine Technologies in the Cane Sugar and Alcohol Industries. Proceedings, *Energy and Environment in the 21st Century*, MIT Press. Cambridge, Massachusetts. 1991. Co-author.
3. The Environmental Impacts of Demand-Side Management. Electric Power Research Institute report TR-101673. 1992. Co-author.
4. The Role of Gas Heat Pumps in Electric DSM. Presented at the 6th National Demand-Side Management Conference. Miami Beach, Florida. March 1993. Principal author and presenter.
5. Applying an Integrated Energy/Environmental Framework to the Analysis of Alternative Transportation Fuels. Invited paper at the European Council for an Energy Efficient Economy (ECEEE) 1993 Summer Study. Principal author.
6. Mistakes, Misconceptions, and Misnomers in DSM Cost-Effectiveness Analysis. Peer reviewed paper at the ACEEE 1994 Summer Study. Principal author and presenter.
7. A Social Cost Analysis of Alternative Fuels for Light Vehicles. *Energy Strategies for a Sustainable Transportation System*, ACEEE. Washington, DC. 1995.
8. Strategies for Reducing Energy Consumption in the Texas Transportation Sector. Project for the Texas Sustainable Energy Development Council. Austin, Texas. June 1995. Co-author.
9. Evaluation of Food Processing Effluent Treatment Alternatives. Paper presented at the American Chemical Society meeting, Las Vegas, Nevada. December 1997. Co-Author.
10. Market Transformation Effect Indicators for Government, Utilities, Retailers and Manufacturers. Invited panelist in a roundtable discussion at the American Council for an Energy Efficient Economy (ACEEE) 1998 Summer Study.
11. California: Crisis Over? Project Finance NewsWire, Chadbourne & Parke. October 2001. Co-author.
12. California: Back to Basics or Déjà Vu? *Natural Gas & Electricity*, Volume 20, Number 12. July 2004. Co-author.
13. Nuclear Fuel Reprocessing: Issues and Future Prospects. Report for the California Energy Commission. (Final Draft). March 2006. Co-author.
14. AB 1632 Assessment of California's Operating Nuclear Plants. California Energy Commission, CEC-100-2008-005-F. October 2008. Co-author.

15. Framework for Evaluating Greenhouse Gas Implications of Natural Gas-fired Power Plants in California. California Energy Commission, CEC-700-2009-009-F. May 2009. Co-author.
16. California's March to 50% Renewables. Project Finance NewsWire, Chadbourne & Parke. November 2015. Co-author.

### **Prepared Testimony**

1. Rhode Island Public Utilities Commission No. 2025  
Prepared Testimony on Behalf of Rhode Island Department of Public Utilities and Carriers (Commission Staff). Testimony addressed the costs, savings, and cost-effectiveness of the proposed demand-side management programs of Providence Gas Company. April 1993.
2. Pennsylvania Public Utility Commission R-943029  
Prepared Testimony on Behalf of the Pennsylvania Office of Consumer Advocate. Testimony reviewed 1307(f) filing of Columbia Gas of Pennsylvania, particularly the impact of the proposed gas cost recovery mechanism on residential customers. May 1994.
3. Public Utilities Commission of the State of Hawaii No. 94-0206  
Prepared Testimony on Behalf of the Gas Company of Hawaii (Gasco). Testimony identification of Gasco's concerns regarding HECO's proposed DSM programs for competitive energy end-use markets. December 1994.
4. Arizona Corporation Commission No. E-00000A-02-0051, E-01345A-01-0822, E-00000A-01-0630. E01933A-02-0069, E-01933A-98-0471  
Rebuttal Testimony on Behalf of Constellation NewEnergy, Inc. and Strategic Energy, L.L.C. Testimony addressed the future of the Arizona Independent System Administrator. July 28, 2002.
5. FERC Docket Nos. EL00-95-075 and EL00-98-063  
Affidavit on Behalf of Duke Energy Trading and Marketing LLC. March 20, 2003.
6. CPUC Rulemaking 01-10-024  
Prepared Testimony on Behalf of the Alliance for Retail Energy Markets. Testimony addressed the utility procurement plans with respect to resource adequacy. June 23, 2003.
7. CPUC Rulemaking 01-10-024  
Rebuttal Testimony on Behalf of the Alliance for Retail Energy Markets. July 14, 2003.
8. Arizona Corporation Commission No. E-00000A-02-0051  
Reply Testimony on Behalf of Constellation NewEnergy, Inc. and Strategic Energy L.L.C. August 29, 2003.
9. Arizona Corporation Commission No. E-01345A-03-0437  
Direct Testimony on Behalf of Constellation NewEnergy and Strategic Energy, Inc. February 3, 2004.

10. Arizona Corporation Commission No. E-01345A-03-0437  
Cross Rebuttal Testimony of Mark E. Fulmer on Behalf of Constellation NewEnergy and Strategic Energy, Inc. March 30, 2004.
11. CPUC Rulemaking 03-10-003  
Direct Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Community Choice Aggregation Transaction Costs. April 15, 2004.
12. CPUC Rulemaking 03-10-003  
Reply Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Cost Responsibility Surcharge for Community Choice Aggregation. May 7, 2004.
13. CPUC Rulemaking 03-10-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Cost Responsibility Surcharge for Community Choice Aggregation. May 20, 2004.
14. CPUC Rulemaking 04-04-003  
Testimony of Mark Fulmer on Behalf of Strategic Energy LLC and Constellation NewEnergy concerning the Long Term Procurement Plans of PG&E, SCE and SDG&E. August 6, 2004.
15. CPUC Rulemaking 04-04-003  
Rebuttal Testimony of Mark Fulmer on Behalf of Strategic Energy LLC and Constellation NewEnergy concerning the Long Term Procurement Plans of PG&E, SCE and SDG&E. August 20, 2004.
16. CPUC Rulemaking 03-10-003  
Opening Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco on Allocation of Costs for Community Choice Aggregation Phase 2. April 28, 2005.
17. CPUC Rulemaking 04-12-014  
Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning SCE's Test Year 2006 General Rate Case Application. May 6, 2005.
18. CPUC Rulemaking 03-10-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco on Allocation of Costs for Community Choice Aggregation Phase 2. May 16, 2005.
19. CPUC Rulemaking 04-12-014  
Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning SCE's Test Year 2006 General Rate Case Application. May 25, 2005.
20. CPUC Application 06-03-005  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of the PG&E's 2007 General Rate Case Marginal Cost, Revenue Allocation and Rate Design. October 27, 2006.

21. CPUC Application 07-01-045  
Testimony of Mark E. Fulmer on Behalf of The Alliance for Retail Energy Markets and The California Manufacturers and Technology Association Concerning SCE's Application to Update its Direct Access and Other Service Fees. June 22, 2007.
22. CPUC Rulemaking 08-03-002  
Testimony of Mark Fulmer Behalf of Debenham Energy, LLC. Concerning Tariffs Supportive of Green Distributed Generation. October 31, 2008.
23. CPUC Application 09-02-022  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition Concerning PG&E's 2009 Rate Design Window Application. July 31, 2009.
24. CPUC Application 09-02-019  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning the Cost Recovery Proposed By PG&E in its Application to Implement a Photovoltaic Program. August 14, 2009.
25. Superior Court of San Francisco  
Deposition of Mark E. Fulmer on Behalf of the City and County of San Francisco in PG&E v. CCSF. (Verbal deposition only.) September 2, 2009.
26. California Superior Court of San Francisco Court Case No. CGC-07-470086 Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco in PG&E v. City and County of San Francisco. (Trial exhibits only in electronic file.) September 25, 2009.
27. CPUC Application 09-12-020  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition Concerning Phase 1 of PG&E's Test Year 2011 General Rate Case. May 19, 2010.
28. CPUC Application 10-03-014  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of PG&E's Test Year 2011 General Rate Case Application. October 6, 2010.
29. CPUC Rulemaking 07-05-025  
Testimony of John P. Dalessi, Mark E. Fulmer, Margaret A. Meal on Behalf of the Joint Parties on a Fair and Reasonable Methodology to Determine the Power Charge Indifference Adjustment (PCIA) and the Competition Transition Charge (CTC). January 31, 2011.
30. CPUC Rulemaking 07-05-025  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Parties Concerning the Transitional Bundled Service Rate, Direct Access Switching Rules, Minimum Stay Provisions, and Energy Service Provider Financial Security Requirements. January 31, 2011.
31. CPUC Rulemaking 07-05-025  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The Direct Access Parties Concerning the Transitional Bundled Service Rate, Direct Access Switching Rules, Minimum Stay Provisions, and Energy Service Provider Financial Security Requirements. February 25, 2011.

32. CPUC Rulemaking 07-05-025  
Rebuttal Testimony of John P. Dalessi, Mark E. Fulmer, Margaret A. Meal on Behalf of The Joint Parties on a Fair and Reasonable Methodology to Determine the Power Charge Indifference Adjustment (PCIA) and the Competition Transition Charge (CTC). February 25, 2011.
33. CPUC Application A.11-03-001, 11-03-002, 11-03-003  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition and The Alliance for Retail Energy Markets Concerning Competitive Issues in the 2012-2014 Demand Response Program Proposals. June 15, 2011.
34. CPUC Application 11-03-001, 11-03-002, 11-03-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition and The Alliance for Retail Energy Markets Concerning Competitive Issues in the 2012-2014 Demand Response Program Proposals. July 11, 2011.
35. CPUC Application 11-06-004  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition and the Alliance for Retail Energy Markets concerning PG&E's 2012 Energy Resource Recovery Account (ERRA) and 2012 Generation Non-bypassable Charges Forecast. August 26, 2011.
36. CPUC Application 11-05-023  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition, the Alliance for Retail Energy Markets and the Western Power Trading Forum concerning the Application of SDG&E for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center, and Quail Brush Power. September 22, 2011.
37. CPUC Application 11-06-007  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of SCE's Test Year 2012 General Rate Case Application. February 6, 2012.
38. CPUC Application 11-12-009  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition, the Alliance for Retail Energy Markets and the City and County of San Francisco Concerning PG&E's Application to Revise Direct Access and Community Choice Aggregation Service Fees. May 14, 2012.
39. CPUC Rulemaking 12-03-014  
Testimony on Behalf of the Alliance for Retail Markets, Direct Access Customer Coalition, and Marin Energy Authority. With Sue Mara. June 25, 2012.
40. CPUC Rulemaking 12-03-014  
Reply Testimony on Behalf of the Alliance for Retail Energy Markets, Direct Access Customer Coalition, and Marin Energy Authority. With Sue Mara. July 23, 2012.
41. CPUC Application 12-03-001  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning PG&E Company's Application to Implement Economic Development Rates for 2013-2017. August 24, 2012.

42. CPUC Application 12-02-001  
Rebuttal Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning PG&E's Application to Implement Economic Development Rates for 2013-2017. October 19, 2012.
43. CPUC Application 12-04-020  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and 3 Phases Renewables Regarding PG&E's Application to Establish a Green Option Tariff. October 19, 2012.
44. CPUC Application 12-04-020  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and 3 Phases Renewables Regarding PG&E's Application to Establish a Green Option Tariff. November 9, 2012.
45. CPUC Application 11-11-002  
Testimony of Mark Fulmer on Behalf of the City of Long Beach. November 16, 2012.
46. CPUC Application 11-11-002  
Rebuttal Testimony of Mark Fulmer on Behalf of the City of Long Beach. December 14, 2012.
47. CPUC Investigation 12-10-013  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the Rate Treatment of the San Onofre Nuclear Generating Station. September 10, 2013.
48. CPUC Application 13-06-015  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding SDG&E's Application for Approval of an Amended Power Purchase Tolling Agreement with Pio Pico Energy Center. September 20, 2013.
49. CPUC Investigation 12-10-013  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the Rate Treatment of the San Onofre Nuclear Generating Station. September 23, 2013.
50. CPUC Application 13-06-015  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding SDG&E's Application for Approval of an Amended Power Purchase Tolling Agreement with Pio Pico Energy Center. October 4, 2013.
51. CPUC Application 13-08-004  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the SCE's 2014 "ERRA" Forecast. November 20, 2013.
52. CPUC Application 13-06-011  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning PG&E's Core Gas Capacity Planning Range. November 20, 2013.



53. CPUC Application 13-04-012  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of PG&E's Test Year 2014 General Rate Case Application. December 13, 2013.
54. CPUC Application 13-06-011  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning PG&E's Core Gas Capacity Planning Range. December 18, 2013.
55. CPUC Application 13-12-012/Investigation 14-06-016  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning Core Transport Issues in PG&E's Gas Transmission and Storage Rate Case and Consolidated Order Instituting Investigation. August 11, 2014.
56. New Mexico Public Regulation Commission Case No. 13-00390-UT  
Direct Testimony of Mark E. Fulmer on Behalf of Renewable Energy Industries Association of New Mexico. August 29, 2014.
57. CPUC Application 14-05-024  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition. September 2, 2014.
58. CPUC Application 13-12-012  
Rebuttal Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning Core Transport Issues In PG&E's Gas Transmission and Storage Rate Case. September 15, 2014.
59. CPUC Rulemaking 12-06-013  
Direct Testimony of Mark Fulmer on Behalf of the Interstate Renewable Energy Council, Inc. Concerning Residential Electric Rate Design Reform. September 15, 2014.
60. CPUC Application 14-06-011  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and the Public Agency Coalition. October 3, 2014.
61. Washington Utilities & Transportation Commission Docket UE-140762 ET AL.  
Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. October 10, 2014.
62. CPUC Rulemaking 12-06-013  
Rebuttal Testimony of Mark Fulmer on Behalf of the Interstate Renewable Energy Council, Inc. Concerning Residential Electric Rate Design Reform. October 17, 2014.
63. Washington Utilities & Transportation Commission Docket UE-140762 ET AL.  
Cross-Answering Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. November 14, 2014.
64. CPUC Application 14-06-014  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of SCE's Test Year 2015 General Rate Case Application. March 13, 2015.

65. CPUC Application 14-06-014  
Testimony of Mark E. Fulmer on SCE's Application to Establish Marginal Costs, Allocate Revenues, Design Rates, and Implement Additional Dynamic Pricing Rates. March 13, 2015.
66. CPUC Application 13-12-013  
Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. May 8, 2015.
67. CPUC Application 14-11-003  
Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on Behalf of the Utility Consumers' Action Network Concerning Sempra's Revenue Requirement Proposals for SDG&E and SoCal Gas. May 15, 2015.
68. CPUC Application 13-12-013  
Rebuttal Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. June 12, 2015.
69. CPUC Application 14-12-017  
Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. June 22, 2015.
70. CPUC Application 14-12-007  
Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers' Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. July 15, 2015.
71. Federal Energy Regulatory Commission Docket Nos. EL02-60-007, EL02-62-006  
(Consolidated)  
Answering Testimony of Mark Fulmer on Behalf of Shell Energy North America (US), L.P. July 21, 2015.
72. CPUC Application 14-12-007  
Rebuttal Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers' Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. August 3, 2015.
73. CPUC Rulemaking 14-07-002  
Joint Solar Parties Net Energy Metering Successor Tariff Rebuttal Testimony of R. Thomas Beach, Mark Fulmer and Jose Luis Contreras. September 30, 2015.
74. Arizona Corporation Commission No. E-04204A-15-0142  
Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. November 6, 2015.
75. Arizona Corporation Commission No. E-04204A-15-0142  
Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. December 9, 2015.
76. Arizona Corporation Commission No. E-04204A-15-0142  
Surrebuttal Testimony of Mark Fulmer on Behalf the Alliance for Solar Choice. February 23, 2016.

77. CPUC Application 15-07-014  
Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. March 11, 2016.
78. Arizona Corporation Commission No. E-01575A-15-0312  
Direct Testimony of Mark Fulmer on Behalf the Energy Freedom Coalition of America. April 1, 2016.
79. CPUC Application 15-07-014  
Rebuttal Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. April 11, 2016.
80. Public Utilities Commission of the State of Colorado Proceeding No. 16AL-0048E  
Confidential Answer Testimony of Mark E. Fulmer on Behalf of the Energy Freedom Coalition of America. June 6, 2016.
81. CPUC Application 16-08-006  
Joint Intervenor Opening Testimony. January 27, 2017.
82. CPUC Application 16-06-0136  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of Pacific Gas & Electric Company's Test Year 2017 General Rate Case Application. March 15, 2017.
83. CPUC Application 17-01-019  
Testimony of Mark Fulmer and Brandon Charles on Behalf of The Utility Consumers' Action Network Concerning San Diego Gas & Electric Company's Proposed Demand Response Portfolio. May 11, 2017.
84. CPUC Rulemaking 03-10-003  
Testimony of Mark Fulmer on Behalf of CalCCA Concerning Community Choice Aggregation Financial Security Requirements as Required by California Public Utilities Code Section 394.25(e). July 28, 2017.
85. CPUC Rulemaking 03-10-003  
Rebuttal Testimony of Mark Fulmer, Jeremy Waen, and Charles Perl on Behalf of CalCCA Concerning Community Choice Aggregation Financial Security Requirements as Required by California Public Utilities Code Section 394.25(e). August 25, 2017.
86. CPUC Application 17-06-030  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase Concerning Phase 2 of Southern California Edison's Test Year 2019 General Rate Case Application. March 23, 2018.
87. CPUC Rulemaking 17-06-026  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition. April 2, 2018.

88. CPUC Rulemaking 17-06-026  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition. April 23, 2018.
89. CPUC Application 17-10-007/17-10-008  
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90. CPUC Application 17-11-009  
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