

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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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.

Rulemaking 12-06-013
(Filed June 21, 2012)

OPENING BRIEF OF THE OFFICE OF RATEPAYER ADVOCATES

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I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

Pursuant to the November 26 Ruling of Administrative Law Judge Jeanne McKinney, the Office of Ratepayer Advocates (ORA) hereby submits its Opening Brief in the above docketed proceeding. ORA supports the transition to default Time-of-Use (TOU) rates for the three investor-owned utilities (IOUs or Utilities), Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E). The transition from default inclining block rates to an end state of default time of use (TOU) rates can best be achieved by reducing the number of rate tiers from four to two between 2015 and 2018. ORA's comprehensive plan to reasonably move forward to cost-based rates carefully takes into consideration both the affordability and bill impacts of the rate design. Further, ORA's proposal does not set a fixed tier ratio because movement towards such a ratio may or may not be reasonable depending on the bill impacts of prior rate changes. Additionally, the Commission should reject the IOUs' proposals to add a monthly fixed charge to all residential customer bills.

In summary, ORA makes the following recommendations:

- 1) The Commission should order the IOUs to transition the default TOU rates, with a baseline credit, in 2018.
- 2) During this transition period, the IOUs should gradually reduce the number of tiers from four to two in a way that minimizes customer confusion and unacceptable bill impacts.
- 3) After the transition to default TOU, the IOUs should offer customers the ability to opt-out of TOU rates into tiered rates as specified in Public Utilities Code Section 745 (c)(6).
- 4) The Commission should reject the IOUs proposals for a customer charge. Instead, the Commission should require a minimum bill provision

ORA proposes to make steady progress on reducing the differentials between the highest and lowest tiered rates, and then introduce default TOU rates in 2018. The IOUs, in contrast, propose to rush the tier rate changes to get to their preferred two tiered rate structure with a 1.2 to 1 ratio, and a fixed charge of \$10 per month, in 2018. Then, they

want to push the pause button on rate reform. Between now and 2018, the IOUs would offer opt-in TOU rates and to conduct opt-in pilots. They ask the Commission to allow them begin persuading customers to opt-in to TOU rates, but it is difficult to gauge the utilities' commitment to TOU. They do not set enrollment or peak demand reduction targets for any of their TOU proposals.¹ Further, their proposals to conduct additional TOU pilots beginning in 2018 will lead to a substantial delay in full deployment of default TOU rates and should be rejected.

II. BACKGROUND

Prior to this Rulemaking, the Commission had already expressed “a policy of transitioning customers to time variant pricing.”² As noted in the Energy Division White Paper, “the Commission articulated a comprehensive demand response policy in its 2003 Vision Statement.” In 2008 the Commission ordered PG&E to propose a default Time Varying Pricing rate for residential customers.³ PG&E filed an application, but it languished and was superseded by this rulemaking. This rulemaking started over 2 years and 4 months ago, with TOU rates as one of its key areas of focus.

The IOUs propose offering opt-in TOU pilots in 2015 and offering default TOU pilots in 2018. In January 2018, this OIR will be five and a half years old. The IOU proposals move quickly to close tiers but are extremely slow to make

¹ See, for instance, the testimony of PG&E witness Pitcock. Q: Do you have any goals in mind or expectations for the level of enrollment that the opt-in TOU you're proposing would achieve in 2016, 2017? A: No, we do not have that. 13 RT 1497, lines 10-14.

² Energy Division White Paper: “Staff Proposal for Residential Rate Reform in Compliance with R.12-06-013 and Assembly Bill 327” (“Energy Division White Paper”), p. 5.

³ D.08-07-045, p. 4.

any significant moves towards meaningful TOU rates.⁴ There are still three more years until 2018, and much can be learned and done in this time. The IOUs appear to need firm direction from a Commission decision to get them working towards a TOU rate future. The IOUs must start to develop plans for how to best educate their customers about the changes regarding TOU rates and customers' ability to opt-out to tiered rates. The IOUs need to be working on identifying their most vulnerable customers and then reaching out to provide extra assistance to these customers. ORA is sympathetic to the recommendations made by other consumer groups to consider exemptions from default TOU rates for additional groups of vulnerable customers besides those already exempted in P.U. Code Section 745.

ORA proposes that the utilities and other parties use TOU pilots to learn as much as we can between now and 2018. To maximize the benefit of these pilots, the Commission should direct the IOUs to start working on customer education and outreach. To aid in the transition to default TOU, the Commission can start with mild TOU rates in 2018, and allow customers to opt-out to tiered rates. In addition, customers on TOU should have a year of bill protection.

III. IMPACT CONSIDERATIONS OF RATE DESIGN PROPOSALS (PHASE-IN SCHEDULE IMPACTS, CONSERVATION IMPACTS, AFFORDABILITY/BILL IMPACTS/ENERGY BURDENS, IMPACTS TO SOLAR PV CUSTOMERS, ETC.)

See Section VII.⁵

⁴ At the December 4 meeting, the CPUC rejected a settlement delaying for five years the full integration of demand response resources into the wholesale market. The Commission cut the proposed integration deadline by two years. In rejecting the delay Commissioners recognized the urgency of improving demand response in California: "I'm confounded as to why 2020 is acceptable" to the settling parties, said Mike Peevey, California Public Utilities Commission president. "How in hell should it take five years [to fully integrate demand response] when we fought World War II in three-and-a-half years?" See California Current, December 5, 2014, p. 7.

⁵ Please note that the common briefing outline provided by the judges had two duplicate sections because parties could not agree where this section should be located in the brief. ORA chose to address these issues in Section VII.

IV. TIERED RATE REFORMS

A. Proposed Rate Design Changes

ORA proposes to reduce the number of residential rate tiers and to decrease the rate differentials between these tiers, but recommends that the Commission carefully consider customer bill impacts before making rate design changes. Significant rate increases in the lower tiers were introduced in Phase 2 of this proceeding with summer 2014 rates.⁶ Yet the IOUs propose extremely rapid rate design changes through 2018, and if their proposals are adopted, lower usage and CARE customers would experience five straight years of above average bill increases. ORA's proposals streamline the transition and avoid customer discontent and backlash by implementing more gradual rate design changes before 2018.

The three IOUs currently have widely varying rates, but all propose to move to a two-tiered rate structure with a simple 1.2 to 1 ratio between these tiers by 2018. ORA also hopes to be able to move to two tiers of rates by 2018, but it encourages the Commission to be flexible about the magnitude of the tier ratio in 2018.⁷ Flexibility is important in part because several other issues being considered in this rulemaking impact ORA's proposals.

First is the issue of monthly fixed charges. ORA opposes the IOUs' proposals for residential fixed charges.⁸ However, if the Commission does decide to impose fixed charges at the same time as making historic changes to the tiered rate structures, the Commission should follow its long standing policy of adopting a composite tier 1 approach to assure that a meaningful increasing block rate is maintained.⁹ This means that, if monthly fixed charges were adopted, the actual tier 2 to tier 1 ratio in variable

⁶ See D.14-06-029.

⁷ ORA/Khoury, 22 RT 3407-3411.

⁸ ORA's detailed opposition to monthly fixed charges is contained in Section V of this brief.

⁹ See the section on Composite Tier 1 analysis for more discussion on this topic (Section V.F.2 of this brief).

energy rates must be much greater than 1.2 to 1 to produce a meaningful differential on a composite level.

Second, if tiered rather than TOU rates become the effective end state for the next half decade or even more, a 1.2 to 1 ratio is not enough because this ratio is pretty close to a flat rate. ORA's proposed illustrative rates and the level of tier differentials are linked to ORA's proposal to introduce TOU rates in 2018. The IOUs, in contrast, propose nearly flat rates and opt-in TOU rates. This combination of rate options would provide very little incentive for customers to conserve electricity, assuming that most customers would remain on tiered rates. The effectiveness of tiered rates on conservation is a subject of debate, but at a minimum they do provide incentives for some customers to conserve usage. Completely eliminating these incentives without meaningful participation on TOU rates would eliminate most conservation incentives at a time when conservation is especially important. Such a backwards movement in conservation policy would be ill advised.

ORA proposes to move to two tiers of residential rates by 2018 if this can be accomplished with moderate bill impacts. If ORA's proposal for default TOU rates is adopted, ORA is comfortable with the level of tier differential shown in its illustrative rates for the three IOUs. If default TOU rates are not adopted, ORA recommends slowing down tiered rate reform.

ORA made different recommendations for each IOU for 2015 rates. This is because the rates and rate structures for the three IOUs and the expected revenue requirements increases for the next year differ widely. ORA based its analysis on the most current rates and expected revenue requirements increases. For PG&E, ORA proposes to wait to at least until 2016 before transitioning to three rates tiers.¹⁰ Significant revenue requirements increases, of approximately 8% between August 2014 and the summer of 2015, would result in unacceptable bill increases if PG&E's rates move to

¹⁰ Ex. ORA-101, p. 3-2.

three tiers.¹¹ This would be on top of the non-trivial summer 2014 rate and bill increases for low usage customers. For SCE, ORA is optimistic that it will be possible to move to three rate tiers in 2015, and would recommend doing so if average residential rates (“RAR”) increase by 3% or less between August 2014 and August 2015.¹² For SDG&E, ORA proposes to move to three tiers in 2015.¹³ Unlike SCE, where the existing tiers 2 and 3 would be combined, the existing tiers 3 and 4 would be merged for SDG&E. This difference is based on the fact that SDG&E currently only has a 2 cents/kWh per kWh differential between tiers 3 and 4. More details are provided in the next section.

1. Application of Policy to the Three IOUs-PG&E Rates

For PG&E, ORA recommends the following:

1. Maintain the current four-tiered default rate structure for PG&E’s non-CARE residential customers (for summer 2015);
2. The Commission should monitor revenue requirement increases after 2015 to determine when reducing the number of tiers to three and then two is feasible; and
3. For rate changes in 2016 or later, the cumulative change in rates applicable to baseline usage should be limited by the change in the residential class average rate (“RAR”), plus three percent, over a given twelve-month period.¹⁴

a) ORA Recommends Retaining Four Tiers for PG&E’s 2015 Rates

PG&E’s 2014 summer rate increases resulted in more than 10% bill increase for non-CARE customers consuming only in the lower tiers and most CARE customers.¹⁵ ORA was one of the parties that entered into a settlement with PG&E for summer 2014

¹¹ Ex. ORA-101, p. 3-8.

¹² Ex. ORA-101, p. 4-1.

¹³ Ex. ORA-101, p. 5-1.

¹⁴ Ex. ORA-101, p. 3-2. ORA’s discussion of its disagreement with PG&E’s fixed charge and TOU rate are discussed in Sections V and VIII of this brief.

¹⁵ Ex. ORA-111, pp. 7-8.

rates.¹⁶ ORA was willing to support the initial level of the rate increase because ORA is interested in moving forward with rate reform. At the same time, ORA continues to monitor PG&E’s rate changes and wants to make sure that the cumulative bill impacts from August 2014 to August 2015 are not unduly burdensome to baseline usage and CARE customers. Taking these recent rate changes into account, ORA recommends to retain the four-tiered rate structure for PG&E for 2015.

In the last several months, CARE and baseline usage customers have experienced multiple rate increases. The following table illustrated the actual rate changes.

Non-CARE	May-14	2014 Summer Rate Change Aug-14	2014 GRC Phase 1 Rate Change Oct-14	% change between Aug to Oct	% change between May to Oct-14
Tier 1	\$0.136	\$0.147	\$0.153	4%	13%
Tier 2	\$0.155	\$0.170	\$0.176	4%	14%
Tier 3	\$0.320	\$0.259	\$0.264	2%	-18%
Tier 4	\$0.360	\$0.319	\$0.324	2%	-10%
CARE					
Tier 1	\$0.086	\$0.092	\$0.098	7%	14%
Tier 2	\$0.099	\$0.106	\$0.112	6%	13%
Tier 3	\$0.140	\$0.151	\$0.157	4%	12%

In addition, PG&E projects another 6.5% revenue increase before a Phase 1 decision of this proceeding is likely to be adopted.¹⁷ Following the RROIR phase 2 settlement, any revenue increase would be allocated based on equal cents to all the tiers. Therefore, a 6.5% average increase would result in higher than 6.5% increases for CARE and non-CARE baseline and tier 2 usage customers. This means that these same customers would likely be seeing cumulative bill increases of more than 20% for the period of summer 2014 to summer 2015. As a result, further collapsing the tiers would

¹⁶ D.14-06-029 adopted this settlement agreement.

¹⁷ Ex. ORA-114, ResidentialRatesOIR_DR_ORA_017-Q03, response to d. & PGE-115.

result in too severe of a bill impact for these customers. Therefore, it is advisable to retain four tiers in 2014.

The cumulative bill impacts from May 2014 through the General Rate Case (GRC) Phase 1 decision are shown below:¹⁸

Summary Bill Impacts - Cumulative from May 2014 to post-GRC Phase 1 decision								
Usage (kwh/month)	E-1 (Non-CARE)				EL-1 (CARE)			
	% Cust	# Cust	Ave \$ Impact	% Impact	% Cust	# Cust	Ave \$ Impact	% Impact
Below 25	0.74%	24,723	\$ 0.20	4.11%	0.27%	3,452		0.00%
25 to 50	0.55%	18,298	\$0.94	12.45%	0.35%	4,420	\$0.24	6.57%
50 to 100	2.87%	96,346	\$1.98	17.08%	2.43%	30,842	\$1.72	24.65%
100 to 150	4.69%	157,226	\$3.20	18.28%	2.12%	26,846	\$2.71	24.96%
150 to 200	5.47%	183,494	\$4.41	18.20%	6.08%	77,154	\$3.80	25.07%
200 to 300	10.56%	353,998	\$6.33	17.94%	14.54%	184,311	\$5.38	25.19%
300 to 400	18.08%	606,357	\$7.94	15.03%	16.89%	214,155	\$7.75	24.90%
400 to 500	12.60%	422,385	\$8.22	11.25%	14.32%	181,521	\$9.97	24.59%
500 to 600	10.34%	346,693	\$7.95	8.22%	14.23%	180,411	\$12.91	24.21%
600 to 700	9.20%	308,584	\$5.05	3.91%	8.37%	106,140	\$15.97	23.74%
700 to 800	7.55%	253,279	\$3.97	2.52%	7.09%	89,857	\$17.92	23.98%
800 to 900	5.50%	184,346	\$3.62	1.98%	3.63%	45,973	\$21.09	23.64%
900 to 1000	2.72%	91,152	\$1.92	0.89%	2.27%	28,729	\$23.96	23.69%
1000 to 1200	4.82%	161,687	\$(0.11)	-0.04%	2.59%	32,882	\$27.51	23.52%
1200 to 1400	2.15%	72,069	\$(1.14)	-0.36%	2.03%	25,801	\$33.80	23.23%
1400 to 1600	0.92%	30,900	\$(2.05)	-0.57%	1.44%	18,228	\$36.98	23.60%
Above 1600	1.25%	42,014	\$(24.79)	-3.81%	1.37%	17,309	\$62.06	22.77%
Total	100%	3,353,549			100%	1,268,031		

¹⁸ Ex. ORA-101, p. 3-9, Table 3-3.

b) For Rate Changes in 2016 or Later, the Cumulative Change for Rates Applicable to Baseline Usage Should be Limited by the Change in the Residential Class Average Rate (“RAR”), Plus Three Percent, Over a Given Twelve-Month Period

Given ORA’s experience reviewing the bill impacts of various rate restructuring scenarios, it is critical to continuously monitor each utility’s specific circumstances at the time that the Commission is considering a rate change. It also is reasonable to consider the timing of approved rate restructuring since it may not align with approved requests for incremental cost recovery. This occurred most recently with the Commission’s approval of D.14-06-029, adopting the settlement among PG&E, ORA and TURN for summer 2014 rates, and the Commission’s adoption of PG&E’s GRC Phase 1 application. The timing of these decisions impacted ORA’s recommendation for PG&E’s 2015 non-CARE rate structure.

Specifically, if the summer 2014 rate increase had reflected the adopted revenue requirement increases from PG&E’s 2014 GRC Phase 1 application, it may have been reasonable to allow the non-CARE rates to move to a three-tiered structure in 2015. Instead, the bill impacts from multiple consecutive rate changes from August 2014 until the summer of 2015 lead ORA to recommend maintaining the current four-tiered rate structure for the summer of 2015.

To guard against a similar situation in the future, ORA recommends a general rule that, for rate changes after the summer of 2015, the cumulative change for rates applicable to baseline usage should be limited to the change in the RAR, plus three percent, over the twelve-month period spanning from the summers of 2015 and 2016. One way this recommendation could be implemented would be to:

- 1) Limit residential rate changes to once per twelve-month period with a cap for the tier 1 rate at RAR plus 3%, or
- 2) Allow tiers to move on an equal percent basis but cap the Tier 1 rate at RAR plus 3% relative to May 1 rates each year.

Moving forward, if PG&E's annual revenue requirements change more moderately around 2%, it may be feasible to implement the following rules to eventually bring the rates to two tiers:

- 1) Increase the non-CARE Tier 1 rate by the RAR plus three percent;
- 2) Increase non-CARE Tier 2 rate by the RAR plus five percent; and
- 3) Reduce effective CARE discounts gradually by 1 to 2% each year.

These rules, however, are rough guidelines and should be evaluated based on assessing the bill impacts in the GRC Phase 2 or Rate Design Window (RDW) proceedings when actual rates are set or designed. In those proceedings, other factors would be accounted for properly, such as using a more up to date revenue requirement projection, new marginal costs and cost allocation, new baseline allowances, and TOU period proposal changes if applicable.

**c) The Commission Should Reject PG&E's
Equal Cent Change for all Tiers in between
Rate Cases**

PG&E states that the Commission normally adopts guidelines in GRC Phase II cases for how to perform rate changes between cases. PG&E recommends that the Commission adopt the following two guidelines:¹⁹

- In the case of revenue requirement increases, all rates (non-CARE and CARE, in every tier) would increase on an equal cents per kWh basis in order to collect the incremental revenue amount.
- In the case of revenue requirement decreases, the non-CARE Tier 1 and 2 rates, as well as all CARE rates, would remain at their then-current levels and non-CARE Tier 3 rates would be decreased so as to collect the lower revenue amount.

The Commission should reject the above proposal because the rules are not typical of how rate changes between rate cases are. PG&E's interim rate case proposals add

¹⁹ Ex. PG&E-101, p. 2-69.

more burden to the lower usage and CARE customers by asymmetrically making lower tier(s) and CARE customers absorb all revenue increases while allowing revenue reductions to completely go to non-CARE higher tier rates.

Normally, a symmetric equal percent increase or decrease rules are applied to the average rate changes for all the classes in between GRCs. The following language was from PG&E's last GRC2 (D.11-12-053) settlement adopted by the Commission:

Section VIII.3 of the Settlement Agreement specifically addresses the issue of **rate changes between GRCs**. After rates are implemented pursuant to the decision adopting this Settlement Agreement, the Settling Parties agree that rates will be changed to reflect changes to the revenue requirement in the manner set forth in the Settlement Agreement. Specifically, each customer group will be held responsible for approximately the same percentage contribution to each component of rates. Except as specifically noted in the Settlement Agreement, this will be accomplished by **implementing changes to the revenue requirement for each component by applying to each rate schedule the same percentage changes to rates by component required to collect the revenue requirement for that component**. (Emphasis added)

Similarly, the Commission adopted the settlement agreement reached by parties in the SCE GRC Phase II, which contains the following language about how rate should be changed (by equal percent) between rate cases:²⁰

Future Changes To SCE's Consolidated Revenue Requirement

1. Future Distribution and Generation Revenue Changes

The Settling Parties agree that distribution and generation revenue requirement changes occurring after the Commission has issued a decision in this proceeding and until Phase 2 of SCE's next GRC proceeding is implemented shall be allocated according to the functional character of the revenue requirement change on a **Functional SAPC basis reflecting the functional allocators used in this Agreement. (Emphasis added.)**²¹

²⁰ D.13-03-031, Attachment A, p. 27.

²¹ "SAPC" is system average percent change, which means that rate change for each customer class will be based on system average percent change in between rate cases.

Even though these SAPC rate change rules were adopted for inter-class purposes in the past, they can be properly applied to intra-class rate changes. PG&E notes such rules being applied to non-residential classes:

To handle such changes, the Commission typically adopts a set of guidelines in PG&E’s GRC Phase II cases for how to perform rate changes between cases. One simple guideline that is currently being used for non-residential rate schedules is to increase or decrease all energy and demand rates **by the same identical percentage** required in order to collect an increased or decreased revenue requirement.²²

PG&E’s proposal asymmetrically applies revenue increases to all tiers but decreases only to the upper tiers. It also applies increases on an equal cents rather than equal percentage basis. This means that the lower tiers and CARE customers effectively receive a larger percentage rate increase than do the non-CARE higher tiers. The following table provides an example to illustrate the effect:

	PG&E's 2015 rates (PGE rebuttal, Table 2-1, p.2-4)	Assume an increase of one cent for all tiers in between cases	
NonCARE Tier 1	0.153	0.163	6.5%
NonCARE Tier 2	0.215	0.225	4.7%
NonCARE Tier 3	0.319	0.329	3.1%
CARE Tier 1	0.098	0.108	10.2%
CARE Tier 2	0.123	0.133	8.1%
CARE Tier 3	0.161	0.171	6.2%

During the rate reform transitional period, parties already are making significant steps to bringing the tiers closer together while allowing the IOUs to recover the adopted revenue requirements. The effect of the rate reform would be to increase rates on lower tier usage and CARE customers in order to reduce the higher tier rates. During the 2014 summer rate change phase, in the spirit of making progress toward meaningful rate

²² Ex. PG&E-101, p. 2-68.

reform, ORA supported PG&E’s effort to make more aggressive rate increases for lower tiers and CARE rates, including the equal cents proposal. However, it is ill advised to continue such an aggressive approach for several consecutive years.

In the table below, ORA shows that the lower tier usage customers see cumulative bill impact ranging between 6.9% to 28.1% while the higher tiers see either smaller bill increase or bill reductions based on ORA’s proposed illustrative rates for 2015 through 2018.²³ The same table shows even more pronounced adverse bill impacts for the same lower usage customers based on PG&E’s proposed rates. Adding PG&E’s equal cents per kWh in between GRCs would add further bill impacts on these customers. Therefore, their proposal should be denied.

Summary Bill Impacts - PG&E and ORA Illustrative Rates for 2015-2018 (2.1 Percent RAR Increase) (%)										
Usage (kwh/month)	PG&E					ORA				
	2015	2016	2017	2018	2015- 2018 cumulative	2015	2016	2017	2018	2015- 2018 cumulative
Below 25	100.1	74.5	3.3	3.5	150.7	1.7	1.3	1.4	2.4	6.9
25 to 50	62.9	44.8	5.2	5.6	125.8	4.8	3.6	3.7	6.3	19.7
50 to 100	40.0	30.0	6.3	7.0	99.7	6.5	4.9	4.9	7.8	26.3
100 to 150	26.4	21.4	7.2	8.0	76.5	6.9	5.1	5.1	8.2	27.8
150 to 200	19.1	16.3	7.7	8.5	61.0	6.9	5.0	5.0	8.1	27.5
200 to 300	13.1	12.5	7.8	8.7	48.8	7.1	5.2	5.2	7.9	28.1
300 to 400	7.5	10.6	6.9	8.1	37.2	6.1	5.4	5.5	7.2	26.4
400 to 500	3.0	10.0	5.8	7.1	28.4	4.0	5.6	5.6	6.4	23.4
500 to 600	-0.2	9.1	4.9	6.1	21.2	2.3	5.3	5.4	5.6	19.9
600 to 700	-3.5	7.6	3.3	4.0	11.6	0.1	4.2	4.3	4.0	13.1
700 to 800	-4.4	6.2	2.4	2.7	6.9	-0.2	3.4	3.5	3.0	9.9
800 to 900	-4.3	4.8	1.7	1.6	3.7	0.3	2.5	2.6	2.1	7.7
900 to 1000	-4.5	3.5	0.8	0.1	-0.3	0.5	1.6	1.6	0.9	4.6
1000 to 1200	-4.5	2.1	-0.1	-1.5	-4.1	0.8	0.6	0.6	-0.3	1.7
1200 to 1400	-4.4	1.0	-0.7	-2.5	-6.4	1.2	0.0	-0.1	-1.0	0.1
1400 to 1600	-4.6	0.8	-0.9	-2.7	-7.4	1.2	-0.1	-0.2	-1.2	-0.3
Above 1600	-3.4	-4.2	-4.7	-9.8	-20.5	2.7	-4.0	-4.6	-6.6	-12.1

²³ Ex. ORA-101, p. 3-15, Table 3-5. PG&E’s tier 1 usage is roughly 300 kWh/Month.

2. SCE Rates

a) SCE Should Transition to Three Tiers of Residential Rates in 2015 as Long as SCE's RAR Increases by 3% or Less

ORA proposes that SCE be allowed to combine its current tier 2 and tier 3 rates to create a three tier rate design as long as SCE's RAR increases by 3% or less between August 2014 and August 2015.²⁴ ORA makes this recommendation balancing the goals of making progress on rate reform with a concern for customer bill impacts. Both SCE and ORA propose ultimately to move to two tiers of residential rates. SCE's proposals would accomplish this quicker and with a smaller tier differential between tiers 1 and 2, but ORA's proposals would make steady progress with reduced bill impacts.

b) Rate Changes from 2016 to 2018

ORA's and SCE's rate reform proposals for 2016 to 2018, and the number of rate tiers, are similar. But SCE's proposals would result in larger bill impacts for lower usage and CARE customers.²⁵ ORA's opening testimony shows the cumulative difference in bill that would result from SCE's and ORA's proposals over the period July 2014 to 2018.²⁶ ORA's Exhibit 120 also shows cumulative bill impacts from November 2013 to 2018. ORA's opening testimony compares SCE's ORA's illustrative non-CARE rates for 2015 - 2018.

As shown in Table 4-3 of ORA's opening testimony, reproduced below, the SCE cumulative impacts, including the summer 2014 bill increases, are unreasonable for many customers. As shown in Exhibit ORA-120, some low usage customers under SCE's proposals would see average bill increases of \$30 per month between 2013 and 2018.²⁷ This is excessive and potentially could lead to customer discontent. ORA's proposals

²⁴ Ex. ORA-101, p. 4-1.

²⁵ ORA and SCE however disagree on the issue of residential customer charges.

²⁶ Ex. ORA-101, Table 4-3 on page 4- 14

²⁷ Ex. ORA-120. The first page of this exhibit shows non-CARE bill impact analysis comparing November 2013 rates to SCE's proposed 2018 rates with an annual 2.1 percent RAR increase. Several monthly usage groups have rate increases between \$20 and \$30.

result in milder bill impacts. ORA's bill impact tables (contained in its Opening Testimony, Appendix B) also show that monthly bill increases are worse in the summer period, and in the hot inland climate zones. SCE's proposals would result in even larger bill increases for these customers.

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SCE's Proposals Compared to ORA's Summary Bill Impacts (as percentage and dollar increase) SCE and ORA Illustrative Non-CARE Rates for 2015-2018 (2.1 Percent RAR Increase)²⁸						
Usage (kwh/month)	SCE		ORA		Difference Between SCE's and ORA's Proposals	
	2015-2018 ²⁹ cumulative	Avg Cum \$ ³⁰ Increase	2015-2018 cumulative	Avg Cum \$ Increase	2015-2018 cumulative	Avg Cum \$ Increase
Below 50	260.2%	\$9.64	16.6%	\$0.63	243.60%	9.01
50 to 100	99.1%	\$12.69	20.4%	\$2.61	78.70%	10.08
100 to 150	75.1%	\$14.74	21.0%	\$4.11	54.10%	10.63
150 to 200	62.2%	\$16.94	21.3%	\$5.80	40.90%	11.14
200 to 250	54.5%	\$19.06	21.5%	\$7.51	33.00%	11.55
250 to 300	49.5%	\$21.17	22.0%	\$9.42	27.50%	11.75
300 to 350	43.1%	\$22.46	22.0%	\$11.46	21.10%	11.00
350 to 400	37.6%	\$23.51	22.2%	\$13.87	15.40%	9.64
400 to 450	32.9%	\$23.85	21.3%	\$15.41	11.60%	8.44
450 to 500	26.0%	\$22.35	18.6%	\$16.01	7.40%	6.34
500 to 550	23.2%	\$22.32	18.0%	\$17.28	5.20%	5.04
550 to 600	18.8%	\$20.67	16.3%	\$17.93	2.50%	2.74
600 to 650	14.4%	\$17.87	14.1%	\$17.49	0.30%	0.38
650 to 700	9.6%	\$13.53	11.2%	\$15.71	-1.60%	-2.18
700 to 750	7.8%	\$11.96	10.3%	\$15.83	-2.50%	-3.87
750 to 800	5.7%	\$9.53	9.0%	\$15.04	-3.30%	-5.51
800 to 850	2.7%	\$4.90	7.1%	\$13.09	-4.40%	-8.19
850 to 900	0.3%	\$0.53	5.6%	\$11.12	-5.30%	-10.59
900 to 950	1.5%	\$3.10	6.5%	\$13.45	-5.00%	-10.35
950 to 1000	-2.8%	-\$6.47	3.6%	\$8.28	-6.40%	-14.75
1000 to 1100	-3.5%	-\$8.66	3.2%	\$7.92	-6.70%	-16.58
1100 to 1200	-6.5%	-\$18.48	1.3%	\$3.54	-7.80%	-22.02
1200 to 1300	-7.9%	-\$24.63	0.3%	\$1.06	-8.20%	-25.69
1300 to 1400	-10.0%	-\$34.43	-1.1%	-\$3.94	-8.90%	-30.49
1400 to 1500	-10.5%	-\$38.70	-1.3%	-\$4.92	-9.20%	-33.78
1500 to 2000	-13.7%	-\$61.95	-3.5%	-\$15.96	-10.20%	-45.99
2000 to 2500	-17.5%	-\$106.01	-6.2%	-\$37.70	-11.30%	-68.31
> 2500	-22.8%	-\$354.84	-9.8%	-\$152.17	-13.00%	-202.67
Totals	8.5%	\$10.64	8.5%	\$10.62	0.00%	0.02

²⁸ Ex. ORA-101, p.4-14, Table 4-3.

²⁹ ORA calculated bills based on July 2014 rates and proposed 2018 rates. This column shows the percentage increase in bills between these periods for different usage range.

³⁰ This column shows the average monthly dollar change in bills between summer 2014 and proposed 2018 bills.

SCE’s rebuttal testimony implies that customers would be willing to accept the level of bill increases it proposes over this multi-year period because there was not a big backlash for the increased bills starting in the summer of 2014.³¹ The potential for a backlash, however, would increase if the Commission were to adopt the same level of bill increases for four years in a row. ORA notes that many people attended the public participation hearings and expressed their concern about bill increases. ORA’s proposals also make rate reform progress, but with smaller bill increases.

3. SDG&E Rates

ORA supports gradually collapsing SDG&E’s current four-tiered rate structure, while offering optional TOU rates during the years leading up to 2018.³² ORA supports a three-tier rate for SDG&E in 2015, followed by a transition to a two-tiered rate. ORA’s proposal is to combine the current Tiers 3 and 4 in 2015, but to wait until at least 2016 to combine tiers 1 and 2.

Roadmap for ORA’s Rate Changes with 2.1% Revenue Increase per Year

2015	<ul style="list-style-type: none"> • Combine Tiers 3 & 4, increase Tier 1 by RAR + 5% • Equalize summer and winter tiered rates • CARE Discount 38%
2016	<ul style="list-style-type: none"> • Combine Tiers 1 & 2 by increasing Tier 1 by RAR + 5% • Set baseline at 65% along with the two-tiered rate design • CARE Discount 38%
2017	<ul style="list-style-type: none"> • Bring (newly-created) two tiers closer together, reduce baseline quantities to 62.5% • CARE Discount 36%
2018	<ul style="list-style-type: none"> • Continue to bring two tiers closer depending on RAR increases and bill impacts • Reduce baseline quantities to 60% • Introduce default TOU rate with baseline credit equivalent to that of the tiered rate • CARE Discount 34%

³¹ Ex. SCE-106, pp. 92-93.

³² Ex. ORA-101, p. 5-1.

a) ORA’s Proposed 2015 Rates Provide More Reasonable Bill Impacts than SDG&E’s

Under the SDG&E proposal, 55 percent of SDG&E’s non-CARE customers would have summer bill increases over \$10 per month.³³ Further, half of SDG&E’s non-CARE customers will receive bill increases of over 20 percent from August 2014 to 2015.³⁴ These bill impacts are severe and unacceptable. In contrast, ORA has presented a much more moderate rate transition to a two-tier structure. ORA’s proposed 2015 rates result in a smaller increase to the tier 1 rates and are more reasonable. This table shows a comparison of ORA’s and SDG&E’s proposed 2015 rates.³⁵

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³³ Ex. SDG&E-109, Attachment E.1. This comes from adding up “Average monthly usage” groups from 150 kWh to 250 kWh through 450 kWh to 500 kWh (7%, 8%, 9%, 9%, 8%, 7%, 7%).

³⁴ Id. This comes from adding up “Average monthly usage” groups from 0 to 25 kWh through 300 to 350 kWh.

³⁵ Ex. ORA-101, Table 5-1.

SDG&E and ORA proposals for 2015

SDG&E Default Tiered Rates	August 2014 AL 2632	SDG&E Proposal 2015	% Change	ORA Proposal 2015	% Change
Res Ave Rate	0.21420	0.21901	2.2%	0.21901	2.2%
Non-CARE Summer					
Tier 1 0-100%	0.16474	0.19752	19.9%	0.17668	7.2%
Tier 2 100-130%	0.18856	0.19752	4.8%	0.20599	9.2%
Tier 3 130-200%	0.36896	0.29381	-20.4%	0.32099	-13.0%
Tier 4 >200%	0.38896	0.29381	-24.5%	0.32099	-17.5%
Non-CARE Winter					
Tier 1 0-100%	0.16474	0.17333	5.2%	0.17668	7.2%
Tier 2 100-130%	0.18856	0.17333	-8.1%	0.20599	9.2%
Tier 3 130-200%	0.33371	0.25782	-22.7%	0.32099	-3.8%
Tier 4 >200%	0.35371	0.25782	-27.1%	0.32099	-9.3%
Customer Charge	0	\$5.00	\$5.00	0	0
CARE Summer					
Tier 1 0-100%	0.10499	0.12293	17.1%	0.11196	6.6%
Tier 2 100-130%	0.12292	0.12293	0.0%	0.13206	7.4%
Tier 3 130-200%	0.18673	0.18718	0.2%	0.18673	0.0%
Tier 4 >200%	0.18673	0.18718	0.2%	0.18673	0.0%
CARE Winter					
Tier 1 0-100%	0.10499	0.10678	1.7%	0.11196	6.6%
Tier 2 100-130%	0.12292	0.10678	-13.1%	0.13206	7.4%
Tier 3 130-200%	0.17445	0.16316	-6.5%	0.18673	7.0%
Tier 4 >200%	0.17445	0.16316	-6.5%	0.18673	7.0%
Customer Charge	0	\$2.50	\$2.50	0	0

ORA recommends setting rates using rules similar to those in the 2014 OIR Phase II settlement.³⁶ The rule would limit the cumulative increase to the lowest tier to 5% above the RAR increase compared to the same August 2014 levels. ORA stresses that, although SDG&E proposes to maintain Phase II summer settlement rules for Tier 2, its proposal to increase the Tier 1 rate up to their proposed increased Tier 2 level, while also introducing a monthly service fee (MSF), will drastically increase bills to lower-tier users in the summer of 2015. Moreover, if SDG&E's proposal is adopted before July 2015,

³⁶ See D.14-06-029 adopting the settlement agreement in Phase 2 of this proceeding.

then under a 2.1% revenue increase scenario, Non-CARE customers' Tier 1 rate would increase by 29% compared to July of the previous year. Regardless of whether a customer charge is adopted, this increase is far too high to be considered reasonable. ORA's proposal shows that substantial progress can be made in reducing tier rate differentials by 2018 without annual rate increases of the magnitude proposed by SDG&E.

b) SDG&E's Proposed 2015 Rates are Vague and Difficult to Understand

In addition to excessively increasing lower-usage customers' bills, SDG&E's proposals for 2015 tiered rates would require additional explanation before the Commission could even consider implementing them. It is unclear what lower-tier rates would be, under SDG&E's proposal, if the revenue requirement increases by more than 2.1%. SDG&E's opening testimony presented, in Table CF-1, a roadmap of upper-tier to lower-tier rate ratios from 2015 to 2018. The ratio for 2015 is shown as 1.55.³⁷ This is approximately the ratio resulting from SDG&E's proposals for both 0% and 2.1% revenue increases at the time of the February 2014 filing.

In SDG&E's rebuttal testimony, SDG&E updated its proposal to reflect August 2014 as the starting point. Here, the proposed ratio between upper and lower-tier rates in 2015 was 1.56 assuming no revenue increase, and 1.48 assuming a 2.1% revenue increase.³⁸ SDG&E did not provide an explanation of the method that it used to arrive at these rate ratios for 2015, nor why SDG&E recommends a ratio that is less than 1.48 for revenue requirements increases greater than 2.1%.

In hearings, Ms. Fang attempts to clarify SDG&E's method when being cross-examined by The Center for Accessible Technology was incomplete and vague:

We would actually go forward keeping the summer settlement rules in place for Tier 2 for 2015, which is different than what's stated in my direct. But we would move

³⁷ Ex. SDG&E-107, p. CF-26.

³⁸ Ex. SDG&E-109, p. CF-47.

forward with 2015 such that our Tier 2 rate would move with our summer settlement rules.³⁹

To ORA's knowledge, nothing in the record clearly explains SDG&E's proposed method. Nor does ORA understand, even given the above explanation, how SDG&E would set rates without the introduction of a monthly service fee, or how winter rates are to be set under various scenarios. SDG&E's proposal cannot be adopted based on the information it submitted into the record. Regardless, ORA proposes alternatives to mitigate increases to lower-usage customers' bills in 2015, as explained above.

c) ORA's 2016-2018 Rate Change Proposal for SDG&E

ORA's proposal is a more gradual transition than SDG&E's for rate changes between 2016-2018. As shown below, ORA's illustrated rates get to two tiers in 2018, rather than in 2015 as proposed by SDG&E. The ORA proposal has more moderate bill impacts. Waiting to combine the lower tiers for one more year will help ease the transition to flatter rates and limits increases to low-usage customers.

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³⁹ SDG&E/Fang, 15 RT 1877, lines 22-28.

ORA Proposed Tiered Rates for 2015-2018 with 2.1% Increase per Year

ORA Illustrative Roadmap 2014-2018	August 2014 AL 2632	ORA 2015	ORA 2016	ORA 2017	ORA 2018
Res Ave Rate (RAR)	0.21420	0.21901	0.22392	0.22893	0.23405
RAR Increase		2.25%	2.24%	2.24%	2.24%
Non-CARE					
Tier 1 0-100%	0.16474	0.17668	0.18947	0.20318	0.21789
Tier 2 100-130%	0.18856	0.20599	0.18947	0.20318	0.21789
Tier 3 130-200%	0.36896	0.32099	0.30699	0.29461	0.28156
Tier 4 >200%	0.38896	0.32099	0.30699	0.29461	0.28156
Customer Charge	-	0.00	0.00	0.00	0.00
% from previous yr					
Tier 1 0-100%	-	7.2%	7.2%	7.2%	7.2%
Tier 2 100-130%	-	9.2%	-8.0%	7.2%	7.2%
Tier 3 130-200%	-	-13.0%	-4.4%	-4.0%	-4.4%
Tier 4 >200%	-	-17.5%	-4.4%	-4.0%	-4.4%
CARE					
Tier 1 0-100%	0.10499	0.11196	0.11733	0.12754	0.13928
Tier 2 100-130%	0.12292	0.13206	0.11733	0.12754	0.13928
Tier 3 130-200%	0.18673	0.18673	0.18673	0.19046	0.19427
Tier 4 >200%	0.18673	0.18673	0.18673	0.19046	0.19427
Customer Charge	-	0.00	0.00	0.00	0.00
% from previous yr					
Tier 1 0-100%	-	6.6%	4.8%	8.7%	9.2%
Tier 2 100-130%	-	7.4%	-11.2%	8.7%	9.2%
Tier 3 130-200%	-	0.0%	0.0%	2.0%	2.0%
Tier 4 >200%	-	0.0%	0.0%	2.0%	2.0%
Eff. CARE Discount	41%	38%	38%	36%	34%

d) The Commission Should Reject SDG&E’s Proposal to Increase the Difference Between its Summer and Winter Tiered Rates

SDG&E’s proposal to increase summer Tiers 1 and 2 rates while decreasing winter Tiers 1 and 2 rates in the default tiered rate design is not necessary at this time. SDG&E attempted to justify this proposal in its rebuttal by stating that customers are familiar with the concept of differentiated seasonal tiered rates. However, Ms. Fang acknowledged in

hearings that “About 40 percent of [customers] never get outside of Tier 1, Tier 2.”⁴⁰ Given that many customers currently do not pay different summer and winter rates, SDG&E may confuse customers by introducing a difference in the lower tier summer and winter rates. While generation costs tend to be higher in the summer than in the winter, this cost difference can be more efficiently reflected by TOU rates. Further, reducing tier differentials in order to transition to TOU rates is complicated by introducing summer and winter differences to the lower tier rates. If it is seen as necessary for SDG&E to differentiate its summer and winter tiered rates significantly, then ORA continues to recommend that increases to the lowest tier rate be limited as described above for summer rates. As noted in ORA’s opening testimony, this limitation leads to a greater difference between lower and upper tier rates than when offering equal summer and winter rates.

B. Baseline Quantities

Before the energy crisis there were two tiers of residential rates, and there was little controversy regarding the level of the baseline allowance.⁴¹ It was routinely set at 55 percent or the mid-point of the allowable range for SCE and SDG&E, and was at the upper end of the range for PG&E. During the Baseline OIR, the Commission moved the baseline allowances for PG&E, SCE, and SDG&E to the maximum level of the allowable range or 60 percent. This was maintained for several years, and then the IOUs gradually attempted to lower these allowances. As parts of various settlements, SCE’s baseline allowance was first reduced to 55 percent, and then later to the present 53 percent. For PG&E, it went first to 55 percent, and then recently to 52.5 percent. For SDG&E it gradually shifted to its current level of 52 to 55 percent.⁴² ORA’s preferred position is to set the baseline allowance again at 55 percent of average residential consumption – in the middle of the allowable range. Because ORA also wants to minimize the number of rate

⁴⁰ SDG&E/FANG, 14 RT 1895, lines 5-6.

⁴¹ Ex. ORA-101, pp. 4-11 through 4-12.

⁴² The allowance in kWh was not reset as average usage changed each year.

design changes during the present rate reform process, ORA recommends simply maintaining the current baseline allowances for PG&E and SCE.

As a practical matter, baseline allowances are updated every three years, or sometimes longer. If average residential consumption in one or more baseline zones were to increase by even a fraction of a percentage point during this time interval, baseline allowances set initially at 50% of average consumption would become too low and thus out of compliance if the baseline allowances were not reset. Baseline allowances set at 53% or above of average consumption would likely remain in compliance for a longer period of time.

As discussed in Section IV of this brief, ORA proposes to move to a two tier residential rate structure, starting with transitioning to three tiers in 2015. Once a two-tiered rate structure is reached, the level of the baseline allowance is no longer an important tool for lowering the tier 2 rate. At that point, the tier 2 rate will be substantially lower than the current upper tier rates, and both the tier 2 rate and the differential between the tier 1 and tier 2 rates can be determined simultaneously in rate design proceedings.

1. PG&E Baseline Allowances

Though PG&E did not explicitly request modifications to its baseline allowances in this proceeding,⁴³ ORA expects PG&E to seek such changes in subsequent GRC and RDW proceedings. Doing so would increase the bill impacts for lower usage customers when combined with the rate restructuring proposals in this proceeding. The cumulative bill impacts should be evaluated in the GRC and RDW proceedings. Moderating the transition to a two-tiered rate structure should be considered if the bill impacts are too high.

⁴³ When PG&E first filed its testimony on February 28, 2014, it assumed a 50% baseline allowance. During the 2014 summer rate reform, PG&E reached a settlement with ORA and TURN, which adopted a 52.5% baseline allowance.

2. SCE Baseline Allowance

SCE's current baseline allowance is calculated as 53 percent of the average residential consumption per climate zone. This is on lower end of the allowable range of 50 percent to 60 percent. SCE proposes to reduce its baseline allowance to 50 percent in 2016, which is the lowest amount allowed by statute. ORA opposes SCE's recommendation and instead proposes to maintain the current allowance of 53 percent for four primary reasons:⁴⁴

1. It would be better to limit the total number of rate design changes coming from this rulemaking given that this is yet another change that will lead to bill increases for some low usage customers;
2. This change is unnecessary when a two-tiered residential rate design is achieved;
3. Before the energy crisis, when a two-tiered rate design existed, most IOUs had a baseline allowance in the middle of the range at 55 percent; and
4. Setting the baseline at the bottom of the range could result in baseline allowances becoming out of compliance if the baseline calculation is not updated annually.

It makes sense to prioritize which rate design changes are most important going forward, and to make only the most important changes at this time. Lowering the baseline allowance to 53 percent of average usage per climate zone will increase bills for some lower usage customers, and thus should not be adopted at this time.

3. SDG&E Baseline Allowance

SDG&E proposes to merge the current Tiers 1 and 2 in 2015, while ORA proposes to do so in 2016. Currently, usage at the top of the first tier represents each customer's baseline allowance, while the second tier covers usage up to 130% of that allowance. The level of these allowances varies from 52% to 55% of the average usage in each of

⁴⁴ Ex. ORA-101, pp. 4-10 through 4-12.

SDG&E's four climate zones.⁴⁵ By offering the same rate for the first two tiers, SDG&E would effectively be increasing the level of each climate zone's baseline allowance by 30%. Thus, ORA supports SDG&E's proposal to lower the baseline quantities down to 50%, only if it does so concurrently with combining Tiers 1 and 2.⁴⁶ In this scenario, a lower rate would be provided for usage up to 65% (50% * 1.3) of the average usage in each climate zone. Since PU Code Section 739(a)(1) defines the baseline quantity as 50 to 60 percent of average usage, ORA recommends a reduction to 62.5% the year following the combination of Tiers 1 and 2, and then down to 60% in the next year.

However, an important difference between ORA and SDG&E's proposals, as noted above, is that SDG&E intends to collapse its lower tiers in 2015 by raising Tier 1 up to the Tier 2 level, which it also proposes to increase. ORA proposes to combine the two tiers in 2016 by raising the first tier by the level of the residential average rate change, plus 5%, while bringing the Tier 2 rate down to the same level as Tier 1.⁴⁷ Lower-usage customers will see no benefit from the effective increase in their baseline allowances if the increase to the rate paid for the lowest usage tier is as drastic as SDG&E proposes.

V. FIXED CHARGE OR MINIMUM BILL

The Commission should reject the IOUs' proposals for fixed charges. In spite of the utilities efforts in their cross-examination to explain in great detail the existence of fixed costs,⁴⁸ no intervenor in this proceeding denies that the utilities have fixed costs. The real debate is not about the existence of fixed customer-related costs. Rather, it is about how to recover them. ORA recommends that they be recovered through a minimum bill provision.

⁴⁵ Ex. SDG&E-105, p. CF-4.

⁴⁶ This discussion focuses on basic service customers. ORA also supports SDG&E's proposal to reduce baseline quantities for all-electric customers over time, if in conjunction with combining Tiers 1 and 2 as well, but proposes to begin the process in the year that the combination occurs, which under ORA's proposal would be 2016. And, as for basic service customers, the end-state baseline quantity would be the top of the range defined in PU Code Section 739(a)(1), which is 70% for all-electric.

⁴⁷ Ex. ORA-101, pp. 5-4 through 5-5.

⁴⁸ E.g., PG&E/Keane, 11 RT 1170-1175.

Contrary to SCE's assertion, the intent of PU code Section 739.9 (a) is not to *require* that fixed costs be recovered through fixed charges.⁴⁹ Statute *allows* fixed charges, but it also permits the use of a minimum bill provision as an *alternative* to fixed charges.⁵⁰ ORA recommends that the actual size of the minimum bill be determined in subsequent GRCs or rate design proceedings. ORA interprets the \$5 (CARE) and \$10 (non-CARE) caps on fixed charges implemented by AB 327 to also apply to minimum bill provisions since they were seen by the legislature as a substitute for fixed charges.⁵¹

A. Recovering Fixed Costs in Volumetric Rates Best Fulfills Many of this Proceedings' Rate Design Principles

The utilities largely have premised their requests for fixed charges on cost of service and equity grounds. Rate Design Principle #3, which states that rates must be based on cost-causation concepts, and Principle #7, that cross-subsidies should be avoided, pertain to these considerations. However, both principles must be interpreted in the light of Principle #2, which states that rates must be based on marginal costs. Thus, when discussing costs that ratepayers are causing or are being unfairly subsidized by other ratepayers, we must limit the scope of that discussion to marginal costs⁵² Both marginal and embedded cost ratemaking are based on cost causation, but they differ as to the time frame in which those costs were incurred. Embedded costs largely were incurred in the past while marginal costs are forward-looking.⁵³

ORA finds that customer hookup costs, which are a prime candidate for fixed charges, are not marginal for all existing customers. The reasons why are explained in

⁴⁹ Ex. SCE-106, p. 44.

⁵⁰ PU Code Section 739.9 (h), quoted in Ex.SCE-106, p. 58.

⁵¹ Ex. ORA-101, pp. 2-20 to 2-21. SCE states, on page 42 of its Opening Testimony (Ex. SCE-101), that a minimum bill level should not be impacted by the limits specified Public Utilities Code Section 739.9(a) because the trigger for a minimum bill is the customer's usage. ORA would counter that, though the trigger may be based on usage, the size of the minimum bill theoretically should be based on costs that are fixed and thus not variable with usage. The latter should take precedence in interpreting the statute.

⁵² ORA/Danforth. RT 3210, lines 7-11.

⁵³ SDG&E/Fang, RT 1750, lines 4-15; ORA/Danforth, 9 RT 320, lines 9-20.

Section D below. Thus ORA opposes recovering hookup costs in a fixed charge. An argument could be made, on cost of service grounds, for recovering in fixed charges the ongoing variable costs of customer services such as billing, maintenance, and customer inquiries. However, ORA recommends not doing so because most competitive markets do not recover such costs using unavoidable fixed charges. The Commission has adopted marginal cost pricing partly to mimic what is done in competitive markets.⁵⁴ Pricing in competitive markets is explained in Section B below.

Marginal cost pricing also has been adopted because it promotes rate efficiency, which is the goal of Rate Design Principle #9. But a significant problem with fixed charges is that there is no meaningful way for customers to respond to a fixed charge other than by terminating utility service. As NRDC stated, a rate to which customers cannot respond does not make utility operations more efficient.⁵⁵ In contrast, customers can respond to variable energy rates by reducing consumption, and thus it is in such rates that fixed costs should be recovered. As discussed in Section VII, the presence of fixed charges in PG&E's and SCE's proposed rate designs *increased* consumption in two of the three methods that Dr. Faruqui used to estimate changes in energy consumption. We can conclude that rate designs with no fixed charges would better fulfill Rate Design Principle #4, which states that rates should encourage energy conservation.

Finally, ORA is open to offering tariffs to customers that include fixed charges if such tariffs are optional.⁵⁶ A settlement in SCE's recent rate design window proceeding does so.⁵⁷ The essence of competitive markets is that they provide choice, and providing customer choice is at the heart of Rate Design Principle #6. The SCE settlement is discussed in the next section.

⁵⁴ D.96-04-050, p. 17.

⁵⁵ NRDC/Chernick, 17 RT 2337, lines 3-11.

⁵⁶ ORA/Danforth, 21 RT 3199, lines 6-11.

⁵⁷ See D.14-12-048, Section 3.2, in A.13-12-015.

B. Fixed Charges are more the Exception than the Rule in Competitive Industries

1. How Competitive Markets Work

Most competitive markets do not recover fixed costs using fixed charges. They generally mark up the volumetric prices they charge to cover fixed overhead, which is analogous to what the Equal Percent of Marginal Costs (“EPMC”) markup does in the case of distribution costs. PG&E reports that the EPMC markup results in a final rate about double the marginal cost.⁵⁸ Many retail stores probably have markups on their wholesale costs of that size or larger.⁵⁹

The one notable exception that does rely on fixed annual charges that received much attention in testimony and hearings is Costco. The utilities frequently proclaim the virtues and popularity of Costco.⁶⁰ ORA acknowledges the existence and popularity of Costco. The critical point, however, is that, in none of the retail sectors in which Costco operates, is the fixed charge model the *only* pricing structure available. The essence of competitive markets is that they provide choice. If utilities genuinely wanted to mimic a competitive market, they’d offer both tariffs that include fixed charges and tariffs that impose minimum bill provisions instead. But, when asked whether it would favor such a pricing structure, PG&E said it would not because it isn’t fair for customers to escape paying for fixed costs.⁶¹ Again, whether or not it is fair depends on whether these costs are marginal.

SCE, in contrast, appears to express some openness to customer choice by indicating that the type of choice provided in its recent rate design window settlement is a good thing.⁶² In that settlement, there is an optional schedule with a \$16 per month fixed

⁵⁸ PG&E/Keane, 10 RT 1136, line 7.

⁵⁹ ORA/Danforth, 21 RT 3259, lines 4 -10.

⁶⁰ Ex. PG&E-101, p. 1-28; Ex. SCE-106, p. 54.

⁶¹ PG&E/Keane, 10 RT 1021, lines 13-19.

⁶² SCE/Garwacki, 18 RT 2478, lines 8-26.

charge, while the default rate still relies mainly on a minimum bill provision.⁶³ ORA is a signatory to that settlement because it believes that optional schedules⁶⁴ with fixed charges can be appropriate as long as the fixed charges are not too large. ORA does draw the line when it comes to the \$80 per month optional fixed charge that SDG&E proposed since this fee also includes distribution demand costs, which ORA believes are better recovered through volumetric rates.⁶⁵ ORA and SCE probably differ in that SCE likely would prefer that the default rather than an optional rate have the fixed charge. Nevertheless, ORA recommends that an *optional* rate have the fixed charge because (1) Most businesses do not have fixed charges and Costco is an exception, and (2) The marginal cost principles described in the next section suggest significantly limiting what costs belong in a fixed charge.

Aside from providing choices, the other notable feature of most pricing strategies in unregulated competitive markets is that businesses usually do not unbundle their costs into variable and fixed charges.⁶⁶ They generally load all their costs into a single price based on whatever they are selling. For example, theaters, amusement parks, and sporting events all base their pricing on the number visits.⁶⁷ What electric utilities primarily sell is electricity. Thus, the pricing model that best fits this free market paradigm is for electric utilities to recover their fixed costs through the amount of electricity they sell.

Unbundling access into a separate charge is non-standard.

The one example, which SCE gives in its rebuttal testimony, of an industry that seems to base its pricing entirely on monthly fixed charges is apartment rentals.⁶⁸ In fact, the apartment industry is the basis for the so-called “rental” method that is used to

⁶³ Note that the settlement caps participation on such optional schedules in the interim to avoid creating revenue shortfalls while the utilities are transitioning to smaller tier differentials.

⁶⁴ Ex. ORA-101, p. 4-2.

⁶⁵ Ex. ORA-101, pp. 2-9 to 2-10; also see pp. 5-14 to 5-15.

⁶⁶ ORA/Danforth, RT 3515:3.

⁶⁷ ORA/Danforth RT 3514-15.

⁶⁸ Ex. SCE-106, p. 54.

calculate marginal customer costs.⁶⁹ This method is discussed in detail in Section D. It is important, however, that apartment rentals generally do not unbundle their costs into different charges associated with providing access to an apartment unit.

It also is important that the apartment industry is highly capital intensive, and charging on the basis of monthly access may be the most convenient pricing scheme.⁷⁰ In contrast, utilities have significant variable fuel and purchased power costs and a capital structure that more resembles airlines than apartments. Thus utilities are more able to recover their costs through their variable electricity rates, as airlines recover their costs based on the number of trips that vary in price by distance.⁷¹ SCE attempts to recast access to an apartment unit into a volumetric concept since it's for a variable number of months.⁷² While one might look at a fixed charge this way, again apartments usually do not unbundle their costs into various fees where some are more variable than others.

In its opening testimony, ORA based its arguments about how competitive industries work on a paper written by the Regulatory Assistance Project (“RAP”). In its opening testimony, ORA quoted the RAP as stating:

... [being] highly capital intensive, the airline industry covers its costs through usage, per trip, prices. While ticket prices vary widely by duration, time of week and year, routing, cabin section, and even time of purchase, no airline requires its potential passengers to pay a fixed periodic charge simply for the opportunity to later purchase travel services. The idea, of course, is ludicrous. As it would be for automobiles, gasoline, shoes, package delivery, and the thousands of other goods and services that households and business purchase every day.⁷³

⁶⁹ SCE/Garwacki, RT 2473:1-10.

⁷⁰ ORA/Danforth, 21 RT 3220, lines 10-16.

⁷¹ ORA/Danforth, 21 RT 3254:24; 3514-15.

⁷² Ex. SCE-106, p. 56.

⁷³ Ex. ORA-101, p. 2-3, citing *Charging For Distribution Utility Services: Issues in Rate Design*, December 2000, The Regulatory Assistance Project (Frederick Weston) p. 20-20.

The RAP adds:

In competition, a consumer who does not consume a product or service does not nevertheless pay for the mere *ability* to consume it. Thus, as a general matter, prices should be structured so that, if a consumer chooses not to purchase a good or service, he or she has no *residual obligation* to pay for some portion of the costs to provide that good or service.⁷⁴

The RAP paper concludes that competitive markets are very hostile to the imposition of unavailable fixed charges. In fact, such charges are only possible when the firm can exercise some degree of market power.

The utilities generally dismissed this paper as outdated. Their response is highly ironic given that they quote Commission decisions that predate the paper.⁷⁵ Moreover, the marginal cost methodologies on which the Commission relies were developed at least two decades before this paper was written. SDG&E states that the article was written before the utilities became subject to competitive pressures from distributed energy resources such as solar generation.⁷⁶ This criticism makes little sense when the article is about pricing in competitive markets to begin with. Moreover, the RAP article does talk about distributed energy resources and suggests standby charges as a reasonable alternative to customer charges.⁷⁷ SDG&E's witness acknowledges that she did not read the whole RAP study.⁷⁸

PG&E argues that utilities are different because they do not have the luxury of going after high profit margin customers. They have an obligation to serve all customers.⁷⁹ Again, this is no excuse for utility pricing not mimicking competitive markets because the utilities also have decoupling mechanisms to deal with fluctuations in

⁷⁴ Ex. ORA-101, p. 2-4, citing *Ibid.*, p. 7.

⁷⁵ See Ex. SCE-106, p. 47, which cites D.96-04-050.

⁷⁶ Ex. SDG&E-107, p. CF-70.

⁷⁷ ORA/Danforth, 21 RT 3261, line 16.

⁷⁸ SDG&E/Fang, 14 RT 1751.

⁷⁹ Ex. PG&E-101, p. 1-28.

profits, which PG&E acknowledges that competitive industries do not.⁸⁰ SCE states that the comparison with competitive markets is not appropriate because competition would not produce inclining block rates.⁸¹ This too is no excuse because such rates are mandated by law. But this statutory constraint does not mean that utility ratemaking cannot mimic markets in other ways.

2. Examples of Fixed Charges in Other Industries

In defense of the notion of fixed charges, the utilities filled with their rebuttal with examples of industries that impose fixed charges. The fact that these examples exist is not terribly significant given that anyone you meet can recite a greater number of firms that do not rely on fixed charges. Moreover, it's important to clarify that ORA did not say that unregulated competitive industries *never* rely on fixed charges. Rather, it stated that they do not do so as the *only* pricing option.

SCE presents the example of mobile telephone providers, and SDG&E goes so far as to present a survey of pricing plans of mobile telephone providers in its area.⁸² Conspicuously absent are the pre-paid plans that do not have monthly charges but instead charge by the minute.⁸³ SDG&E acknowledged that the example rate plans for mobile telephones that it presented are not comprehensive.⁸⁴

SDG&E provided similar information for cable television providers.⁸⁵ Given that the RAP study states that fixed charges are more common in non-competitive industries, SDG&E's witness was asked whether the cable providers that she listed have market power. The witness did not know but acknowledged that, in her neighborhood, only one of the cable providers is available.⁸⁶ Nor does she know how the cost structure in the

⁸⁰ PG&E/Keane, 10 RT 1020, ORA/Danforth, 21 RT 3225-3226, lines 7-28, lines 1-11.

⁸¹ Ex. SCE-106, p. 54.

⁸² Ex. SDG&E-109, Table CF-2.

⁸³ Exhibits ORA-115 and ORA-116.

⁸⁴ SDG&E/Fang 14 RT 1761-1762, lines 24-28, lines 1-10.

⁸⁵ Ex. SDG&E-109, Table CF-1.

⁸⁶ SDG&E/Fang, 14 RT 1759, lines 21-28.

cable industry compares with the electric utility industry, nor is she aware of the cost structure of the mobile telephone industry.⁸⁷ It's possible that these industries are more capital intensive than electric utilities and thus lend themselves to fixed charges. In any event, there are clearly alternatives in the general entertainment business that do not involve fixed charges: television by antenna, movie theaters, concerts, plays, books, etc. Further, unlike electricity, cable television is not a necessary service. Customers who do not wish to pay the monthly fees to cable television providers clearly have ways of avoiding them.

In addition to cable and mobile phone providers, SDG&E presented surveys of numerous water and electricity utilities that employ fixed charges.⁸⁸ That many utilities employ fixed charges is well known. But, what is most critical is whether they employ marginal or embedded cost ratemaking. This is important because marginal costs generally are variable and forward looking, whereas embedded costs include sunk costs that are fixed.⁸⁹ Water utilities in California all employ embedded cost rate designs.⁹⁰ Also important is whether these companies employ decoupling since utilities without the protection of decoupling have a higher need for the revenue stability provided by fixed charges. ORA conducted research on the utilities that PG&E was using as examples in its opening testimony, and found that nearly none employ marginal cost pricing and most do not have decoupling mechanisms.⁹¹

SDG&E's witness was unable to provide any of information about whether the examples she cited in rebuttal employ marginal cost pricing or decoupling.⁹² Similarly, PG&E's witness does not know whether water utilities employ marginal or embedded cost

⁸⁷ SDG&E/Fang, 14 RT 1757-58, 1760, 15 RT 1932.

⁸⁸ Ex. SDG&E-107, Tables CF 3, CF-4, and CF-5.

⁸⁹ Ex. ORA-101, p. 2-5.

⁹⁰ ORA/Danforth, RT 3194, lines 27-28.

⁹¹ Ex. ORA-101, pp. 2-4 to 2-6.

⁹² SDG&E/Fang, 14 RT 1764-65.

ratemaking.⁹³ Yet it is the utility that seeks to change the status quo and thus bears the burden of proof.

In hearings, SDG&E attempted to expand the discussion beyond cable television, the internet, water, and out-of-state electric utilities. It asked ORA's witness whether movie theaters, amusement parks, sporting events, computer software available by annual license fees, and magazines and newspapers available by subscription charge something akin to fixed charges. In some sense, maybe they do, but the important thing is that for most of those there is no *residual obligation* if a customer does not partake of those goods and services. For example, though movie theaters, amusement parks, and sporting events levy a fixed charge per visit, they do not levy some kind of annual charge like Costco that one must pay just in case one wants to do business with them. Newspapers and magazines also are offered in newsstands on a per copy basis and an annual subscription is not required to obtain them.⁹⁴

C. Customers Generally Do Not Like Fixed Charges

ORA also opposes fixed charges because customers do not like them. This is why they are unsustainable as the sole option in competitive industries.⁹⁵ There is little dispute about whether or not customer charges are favored by customers. That customers dislike fixed charges is obvious from the ample testimony given in the public participation hearings ("PPH's). Perhaps one of the more colorful statements was made at the Fontana PPH: "\$120 a year to pay Edison for the pleasure of doing business with a monopoly ... It doesn't sound fair to me or a lot of people."⁹⁶ Many customers who spoke at the PPHs appeared to be the low-usage customers who would be negatively impacted by the imposition of customer charges.

⁹³ PG&E/Keane, 10 RT 1022.

⁹⁴ ORA/Danforth, 23 RT 3516, lines 10-21.

⁹⁵ Ex. ORA-101, p. 2-4.

⁹⁶ RT 594:7-9.

The Utilities acknowledge that public sentiment at the PPHs was largely against customer charges.⁹⁷ SCE, however, states that many customers who attended the PPHs did not appear to understand that their variable energy rates would decrease as the fixed charge is increased.⁹⁸ What better way to educate customers about how these two rate elements interact than to offer rate schedules with and without fixed charges! That way they can readily see how, when one goes up, the other goes down. As stated before, providing such a choice is a core element of the recent settlement in the recent SCE RDW. Again, offering choices is the hallmark of a competitive industry and at the heart of Rate Design Principle #6.

In addition to the PPHs, the utilities' own survey showed that customers do not like customer charges.⁹⁹ PG&E and SCE quote a J.D. Powers study showing that customers like SMUD's pricing, but the survey does not ask specifically about fixed charges.¹⁰⁰ The utility witnesses acknowledge that the high scores could be a result of SMUD having lower rates than the IOUs.¹⁰¹

Finally, the IOUs argue that customer charges are prevalent in other states. However, with the exception of a two-sentence PacifiCorp response to an SCE data request,¹⁰² the utilities provide no analysis showing that customers in those jurisdictions prefer customer charges to strictly volumetric rates.

D. Many Fixed Costs Are Not Marginal Costs

PG&E states, in regard to those who oppose a fixed charge, that "... tellingly, no parties argue against it on cost of service grounds." It is unclear why PG&E would say this when ORA devoted almost a fifth of its opening testimony on fixed charges (Section

⁹⁷ PG&E/Pitcock, 12 RT 1459, lines 6-8; SCE/Ramirez, 20 RT 2875-2876

⁹⁸ Ex. SCE-106, pp. 56-57 and footnote 140.

⁹⁹ Ex. TASC-102, slides 18 and 19.

¹⁰⁰ PG&E/Keane, 10 RT 1019-20 ; SCE/ Garwacki, 18 RT 2483.

¹⁰¹ PG&E/Keane, 10 RT 1019, lines 16-25; SCE/Garwacki, 18 RT 2483, lines 14-20.

¹⁰² Ex. SCE-106, Appendix D.

C) to discussing marginal costs. This comment also is surprising coming from PG&E, the utility that invented and endorses the so-called “New Customer Only (“NCO”) method of calculating marginal customer hookup costs.¹⁰³ As explained below, that method treats the costs of existing customers’ hookups as non-marginal sunk costs.

PG&E adds that it “... indisputably has fixed costs that, under a cost-based rate design, should be collected via a monthly service fee.”¹⁰⁴ Moreover, it states that it is an inequity for large customers to disproportionately pay for fixed costs.¹⁰⁵ SCE states that the reality is that there are fixed costs.¹⁰⁶ It further adds that ORA “ignores the fundamental ratemaking principle that fixed costs should be recovered from fixed charges.”¹⁰⁷ This “fundamental ratemaking principle” to which SCE refers is not one of the ten ratemaking principles developed in this proceeding. Moreover, if it is so fundamental, then the pricing that emerges from unregulated competitive markets is wrong.

Presumably, in SCE’s mind, this fundamental ratemaking principle relates to the notions of fairness and alleged cross-subsidies that can exist in the absence of fixed charges. However, these arguments only make sense if the fixed costs that the utilities have in mind are marginal costs. The two categories of marginal customer costs that arguably could be recovered in fixed charges are customer hookups and customer service costs. As stated above, the NCO method treats existing hookups as non-marginal. Fixed charges, if adopted, could include certain customer service costs. But ORA opposes establishing fixed charges to recover such costs based on the arguments in the previous sections above.¹⁰⁸ Though the NCO versus “rental” method debate is not in the scope of this proceeding, properly understanding them is critical to understanding why ORA

¹⁰³ Ex. ORA-101, p. 2-11.

¹⁰⁴ Ex. PG&E-109, p. 1-27.

¹⁰⁵ Ex. PG&E-109, p. 1-42.

¹⁰⁶ Ex. SCE-106, p. 44, line 8.

¹⁰⁷ Ex. SCE-106, p. 46, lines 1-3.

¹⁰⁸ Also see ORA Opening Testimony, Ex. ORA-101, p. 2-21.

opposes the recovery of hookup costs in fixed charges on cost of service grounds. These two competing methods are discussed in the next section.

1. NCO is the Preferred Methodology for Calculating Marginal Customer Costs at This Time.

The five most recent decisions which have been litigated have adopted the NCO method.¹⁰⁹ Once introduced by PG&E in 1992, the NCO method had a certain appeal which led to it being adopted in most of the subsequent decisions where marginal costs were litigated.¹¹⁰ SCE's witness indicated that Commissioner Florio has an interest in looking at the NCO versus "rental" method debate again, and indicated that the issue is "ripe for review."¹¹¹ However, he does not believe that it is appropriate to re-litigate this issue in this proceeding. ORA agrees. Nevertheless, if it is going to be re-litigated, then it is not possible for the Commission to adopt a fixed charge that includes customer hookup cost in this proceeding.¹¹² The fundamental cost of service basis for the charge must be addressed first.

The main difference between the NCO and "rental" method is that the NCO method treats the cost of existing hookups as non-marginal fixed sunk costs, whereas the "rental" method does not.¹¹³ Basically, the NCO method distinguishes between the hookups installed to serve existing customers, and those newly installed to serve new customers. The rental method does not make this distinction but rather charges all customers the same "rent" regardless of the vintage of their hookups. This distinction is critical because some 98% of customers are existing customers since the customer growth rate is only on the order of 2% per year.

¹⁰⁹ See D.92-12-057, D.95-12-053, D.96.04-050, D.97-03-017, and D.97-04-082.

¹¹⁰ ORA/Danforth, 23 RT 3503, lines 5-11.

¹¹¹ SCE/Garwacki, 18 RT 2474, lines 23-24

¹¹² ORA/Danforth, 21 RT 3248:18.

¹¹³ ORA/Danforth, 21 RT 3203-3204, lines 25-8, lines 1-2.

Mechanically, the NCO method reflects the entire cost of new hookups in the year they are incurred because they become sunk costs in subsequent years.¹¹⁴ Whereas, the “rental” method applies an annualization factor called the “real economic carrying charge” (“RECC”) to reflect an ongoing value that hookups allegedly have in that they can be “rented.” As D.96-04-050 explains, the concept of an ongoing value is appropriate for generation facilities that are shared by all ratepayers. But the idea does not make sense for customer hookups. With generation, when one customer reduces demand, it creates excess capacity to serve other customers. Thus the addition of new generation capacity can be deferred through customers reducing their demand, and this is why UCAN’s witness regularly referred to the “rental” method as the “deferral” method.¹¹⁵ But nothing is deferred when a customer decides to no longer take service from a given utility.¹¹⁶ As D.96-04-050 states on page 66:

... a customer’s decision to terminate access to Edison’s system does not have similar [deferral] value. As Edison acknowledges, equipment attached to building does not have opportunity value on its own separate from the building in which the equipment is installed... Moreover, customer hookup equipment has negligible salvage value.

If the rental method is to be reinstated, there is one fundamental problem that must be addressed. And that is that the RECC formula, on which this method is based, assumes that the underlying asset being rented appreciates in value. This is the case with apartments, but it is not the case with utility equipment which depreciates with age.¹¹⁷

ORA has no problem with incorporating marginal costs based on the NCO method in revenue allocation. Indeed, it has endorsed this approach in every GRC in the last two decades. But it is important to note that marginal customer costs were excluded from

¹¹⁴ ORA/Danforth, 23 RT 3510, lines 16-26.

¹¹⁵ E.g., SDG&E/Croyle, 19 RT 2748.

¹¹⁶ ORA/Danforth, 23 RT 3510:12-15.

¹¹⁷ ORA/Danforth, RT 3509:26ff.

revenue allocation prior to 1986 because of questions concerning whether they are really marginal.¹¹⁸

ORA agrees with including NCO-based marginal customer costs in revenue allocation because the whole customer class (to which revenues are allocated) includes *both* existing and new customers, and thus it makes sense to include hookup costs in the allocation. But, given that 98% of the customers in the class are not responsible for causing costs associated with new hookups, embedding this cost in a charge that all customers will pay sends a meaningless price signal. It is meaningless because there is nothing existing customer can do to impact those costs since they are sunk.¹¹⁹ It is meaningless also because the magnitude of this cost is impacted by the number of new customers in a given year, which existing customers have no control over.¹²⁰ SDG&E might complain that a minimum charge sends no price signal.¹²¹ Neither does a customer charge that includes hookup costs.

2. Line Extension Allowances

The utilities have premised their arguments on fairness. But, the fairest process would be for the new customers pay for their own hookups rather than allocating the cost to everyone in the class.¹²² This is because the hookup cost is only marginal when the developer builds a home and seeks to hook it up to the utility distribution system. But current line extension rules provide significant subsidies to developers that go into the rate base and are paid for by all existing customers. ORA views line extension allowances as an anachronism from the 1950s that should have been abolished years ago, and both ORA and TURN tried to do so about 10 years ago but were unsuccessful. Commissioner Florio

¹¹⁸ Ex. ORA-101, p. 2-11; also see D.85-12-108.

¹¹⁹ ORA/Danforth, 21 RT 3228, lines 13-27.

¹²⁰ ORA/Danforth, 21 RT 3232-33.

¹²¹ Ex. SDG&E-109, p. 46.

¹²² D.85-12-108, p. 40.

has indicated, in his concurrence to D.11-07-029, that he wishes to look at rules 15 and 16 that govern line extension allowances again.¹²³

The only way to properly remedy the fixed cost fairness problem is to abolish line extension allowances. ORA acknowledged that this issue is outside of the scope of this proceeding, as is the NCO versus “rental” method debate. But imposing fixed charges to recover costs that have been improperly allocated to begin with is not the solution. Two wrongs do not make a right. ORA accepts the use of NCO-based marginal customer costs in revenue allocation because their inclusion reflects the current practice of existing customers subsidizing new ones through line extension allowances. But it does not support compounding the problem by embedding such marginal costs in monthly fixed charges.

There may be some appeal to the idea of existing customers paying for new hookups because their own hookups similarly were subsidized often years ago, and this may be one reason why line extension allowances have been perpetuated. On that basis, one could see the NCO-based customer cost as a proxy for the hookup cost of each customer, whether existing or new. However, saying this ignores the plain fact that the hookup costs of existing customers are sunk costs. If one is to design rates based on marginal costs, this proxy argument is not a valid way to justify monthly fixed charges.

3. UCAN’s Proposal to Address Marginal Customer Costs Is Impractical and Should not be Adopted

Besides the NCO versus “rental” issue, there is another thorny issue that is associated with calculating marginal customer costs. And that is the difficulty of teasing out which costs of the distribution system are caused by changes in demand and which are caused by changes in the number of customers. As ORA explained in oral testimony, this is a classic joint products problem. Free markets generally allocate the costs of different two functions of a factory or farm based on the relative price the market will assign to

¹²³ ORA/Danforth, RT 3233, lines 3-28; 3515, lines 12-18.

each product. This cannot be done with utility distribution equipment because there effectively is no competitor for hookup equipment.¹²⁴

UCAN has advanced a proposal where the marginal customer costs are based on the rental method, but a technique called the “zero intercept method” (“ZIM”) is employed to isolate which costs of the distribution system are customer-related. During hearings, ORA indicated that the Commission attempted to use ZIM in the 1980s and abandoned it because different applications of the approach yielded different results, making the approach very controversial. The Commission finally decided to make it simple by deeming the final line transformer, service line, and meter (“TSM”) as customer-related, and everything else as demand-related.¹²⁵

ORA is reluctant to open this can of worms again and to try to make the zero intercept method work because it does not think it can be successfully employed. Moreover, UCAN’s approach is premised on the “rental” method, which ORA does not support.¹²⁶ It is somewhat curious that UCAN would propose a method predicated on the rental approach since it argued in several proceedings in the 1980s for something it called the “incremental-decremental” approach.¹²⁷ ORA sees the NCO method as an implementation of the incremental-decremental approach where the decremental costs, that is the salvage cost when a customer terminates electric service, as are regarded as zero.

ORA fully appreciates the intractable nature of this joint products problem, but it sees it as yet another reason not to adopt a customer charge that includes the cost of the TSM equipment, whether the NCO or rental method is applied to that equipment. If the Commission were to reject ORA’s recommendation and adopt customer charges, ORA proposed in its opening testimony addressing the joint products problem by simply

¹²⁴ ORA/Danforth, 23 RT 3506-7.

¹²⁵ ORA/Danforth, 21 RT 3252, lines 20-28; 23 RT 3507, line 28-3508, lines 1-10.

¹²⁶ ORA/Danforth, 23 RT 3508, lines 26-28, 3509, lines 1-2.

¹²⁷ Ex. ORA-101, p. 2-11 to 2-13.

omitting the cost of the transformer and service line since their costs vary by both changes in demand and changes in the number of customers.¹²⁸

E. The Solar Problem Does not Require Fixed Charges

A subset of the cost of service and fairness problems, on which the utilities focus, is net energy metering (“NEM”). Though utilities place most of their emphasis in opening testimony on general cost of service issues that affect all ratepayers, it is clear from the rebuttal and from hearings that they are very concerned about NEM customers.

SDG&E’s statement that the RAP study is outdated because it does not consider competition from distributed energy resources makes clear its concern.¹²⁹ SDG&E also questioned ORA about energy storage and distributed automated demand response.¹³⁰

ORA believes that a minimum bill provision is adequate for now to address problems associated with NEM customers. Both PG&E and SDG&E acknowledge that, for customers who have reduced their usage to near zero using NEM, a \$10 fixed charge and a \$10 minimum bill will recover the same revenues.¹³¹ Clearly such customers should be the largest concern in terms of not paying their fixed costs. Granted, ORA has argued that a minimum bill should be subject to the \$5 (CARE) and \$10 (non-CARE) caps regardless of whatever stranded costs NEM produce.¹³² But customer charges would be subject to the same caps, so they have no clear advantage over a minimum bill provision.

As for other solutions, several have been teed up in R.14-07-002, the NEM rulemaking. ORA’s own testimony suggests placing such customers on a separate tariff, sometimes called an “NEM subclass.”¹³³ The utilities have proposed changing the NEM structure so that all net generation is compensated at a generation rate rather than at the

¹²⁸ Ex. ORA-101, p. 2-21.

¹²⁹ Ex. SDG&E-109, p. CF-7.

¹³⁰ ORA/Danforth, 21 RT 3221, lines 12-28.

¹³¹ PG&E/Keane, 10 RT 1133, lines 23-28; SDG&E/Fang 14 RT 1755.

¹³² Ex. ORA-101, p. 2-21.

¹³³ Ex. ORA-101, p. 2-16 to 2-17.

full retail rate (RT 3231:1-11 Danforth). The latter would go a long way to resolving the NEM fixed cost recovery issue because it is the ability of NEM customers to cancel out a significant portion of their distribution bills that has caused the NEM fixed cost recovery problem to begin with. The RAP study itself proposed the use of standby charges to address the fixed cost recovery problem from distributed generation.¹³⁴ ORA has not proposed this solution in R14-07-002 because, currently, NEM customers use the grid on a fairly regular basis. Whereas, standby customers only use it intermittently. As battery storage becomes more viable, standby rates for NEM customers may become more relevant.

Until R.14-07-002 plays out, ORA would oppose adopting fixed charges to address any problems associated with NEM. If the Commission has an inclination to adopt fixed charges because of the NEM issues, it should wait until these other solutions to these fixed cost recovery problems are litigated in R.14-07-002. It is true that the solutions being proposed will only work for the NEM successor tariff, sometimes called NEM 2.0, and not for the current NEM customers. But participation on the latter is capped at 5% of the load¹³⁵ Imposing a fixed charge on 95% of the customers to address a problem is being caused by only 5% of them is a serious case of the “tail wagging the dog.”

F. A Minimum Bill Provision Would Be a Preferable Alternative to Fixed Charges

ORA is committed to rate design principle #2, that rates be based on marginal costs. But it also realizes that, in some limited cases, a rate design based entirely on variable energy rates may under-recover the utilities’ fixed costs. The best way to recover fixed costs that are not recovered in marginal cost pricing is through a minimum bill provision. That provision would operate independently of the marginal cost based rates.

¹³⁴ ORA/Danforth, 21 RT 326, line 16.

¹³⁵ Ex. ORA-101, p. 2-9.

Thus it would not “pollute” the marginal cost price signal for the vast majority of customers.¹³⁶

1. Pros and Cons of the Minimum Bill Approach

While it is true that a minimum bill provision would bring in far less revenues than would a fixed charge, the problem it is designed to address is only being caused by a very small number of customers. PG&E has argued that a minimum bill is inequitable because, within the small population of customers that would be impacted by a minimum bill provision, it charges different customers consuming different amounts of electricity the same amount. Yet the marginal cost to serve them clearly varies with usage.¹³⁷ ORA hopes to minimize this problem by limiting the minimum bill provision to distribution rates rather than total rates and by keeping the minimum bill requirement small.¹³⁸

Offsetting these objections, a minimum bill provisions has an advantage over customer charges in that they are less disruptive to the baseline concept than are fixed charges. As shown in ORA’s Opening Testimony, the effects of the minimum bill provision disappear at a usage level that is significantly smaller than the standard baseline allowance. In the example given, the effect of a minimum bill provisions disappears at a usage level almost one half that of PG&E’s lowest baseline allowance.¹³⁹

These problems with a customer charge can be partially mitigated, for customers consuming at the top of their baseline allowances, by increasing the difference between tiers 1 and 2. But the utilities aim for a tier differential of about 20%, and the intervenors have shown that this small discount is almost entirely offset by a \$10 customer charge. ORA set a goal in developing its exemplary rates of aiming for a 6-cent differential between the two tiers. Clearly, if the Commission adopts a \$10 customer charge, the 6 cents would have to be added on top of a composite Tier 1 rate. In the composite Tier 1

¹³⁶ Ex. ORA-101, p. 2-17.

¹³⁷ Ex. PG&E-109, p. 1-41.

¹³⁸ Ex. ORA-101, pp. 2-18 to 2-19.

¹³⁹ Ex. ORA-101, p. 2-19, lines 7-20.

approach, any customer charge revenues are divided by tier 1 sales to produce a kWh rate component. This in turn is added to the tier 1 rate to result in the composite Tier 1 rate. This composite Tier 1 rate is then compared to the Tier 2 rate or the other upper tier rates to ensure that there is an increasingly block rate.

2. Commission Policy on Composite Tier Differentials

The Commission has consistently adopted a composite Tier 1 approach for evaluating whether PU Code Section 739 is satisfied by the proposed rate design. PU Code 739 (d) (1) requires that there be an increasing block rate to protect customers and also provide incentives to conserve. “The baseline rates shall apply to the first or lowest block of an increasing block rate structure which shall be the baseline quantity.”(one sentence of this Code Section) Section 739.7 states: “In establishing residential rates, the commission shall retain an appropriate inverted rate structure.”

In the composite Tier 1 approach, any customer charge revenues are divided by tier 1 sales to produce a kWh rate component that is added to the tier 1 rate to result in the composite tier 1 rate. This composite tier 1 rate is then compared to the tier 2 rate or the other upper tier rates to ensure that there is an increasingly block rate. It is further used to measure the tier differentials between the tier 1 and tier 2 rates.

ORA’s testimony and TURN’s testimony cite a number of Commission decisions going back to the 80s that adopt the Composite approach. SCE and PG&E cite a decision on a PG&E GRC from 1993, D.93-06-087 in which the Commission did not adopt the composite approach.¹⁴⁰ In this case, the Commission ruled that in the case of an IOU having a minimum bill and no customer charge, that it was too complicated to use the composite approach. This decision was followed in fairly short order by the 1995 SCE GRC, in which the Commission fully examined this issue and adopted the composite approach:

¹⁴⁰ Ex. SCE-106, pp.21-24; Ex. PG&E-109, pp. 1-17 through 1-19.

In PG&E's test year 1993 GRC, we adopted PG&E's proposal to use a simple tier differential in conjunction with its current minimum charge because we agreed that it was easier to implement than the composite approach. However, we stated that there may be technical problems with that approach when it is applied with a customer charge. Moreover, we noted that the issue of including a customer charge in a composite tier 1 rate was not well developed in that case. In contrast, this issue was fully explored on the record in this proceeding.¹⁴¹

The Commission has continually adopted the composite tier 1 approach when evaluating if increasing block rates exist and the level of tier differentials for any IOUs that have a customer charge.

In rebuttal testimony, the IOUs have made erroneous assertions that the Commission has overturned decades of precedents in PG&E's 2010 GRC and by the deletion of an old PU Code Section 739.9(b) that was deleted by AB327.¹⁴² PG&E's and SCE's interpretation of D.11-05-047 is flawed and taken out of context. In this decision, the Commission was examining a much narrower proposal made by TURN that the tier differential on a composite basis between tier 1 and tier 2 rates had to be at least 10% to result in a meaningful conservation incentive. The Commission rejected TURN's proposal but continued to affirm the composite approach, but looked at it from a slightly different vantage point. PG&E had four tiers of residential rates, and the Commission determined that the legal requirement of increasing block rates could be satisfied if the weighted combination of the tier 2, 3, and 4 rates was greater than the composite tier 1 rate. It did not adopt TURN's proposal, but did continue to endorse the composite tier 1 approach.

The Commission ruled:

We disagree, however, with TURN's interpretation that the differential between PG&E's proposed Tier 1 and 2 rates, including

¹⁴¹ *Southern California Edison Company*, Decision 96-04-050, 1996 Cal. PUC LEXIS 270, at *170 (1996).

¹⁴² Ex. SCE-106, pp. 21-24; Ex. PG&E-109, pp. 1-17 through 1-19.

any customer charge in Tier 1, must be at least 10 percent in order to comply with Sec. 739.7. We interpret Sec. 739.7 merely as requiring that an inverted rate structure be maintained. TURN relies largely on D.93-06-087 as the basis for its focus on a 10 percent tier differential. In that decision, the Commission concluded that a 10 percent differential between baseline and non-baseline rates was inadequate to provide a meaningful inverted rate structure and conservation signal. Yet, D.93-06-087 applied to a different rate structure than exists today. We agree with SCE that compliance with the inverted rate structure requirement of Sec. 739.7 is a comparison of the baseline rate (Tier 1) to the average of all non-baseline rates. Based on this comparison, the differential between PG&E's baseline and non-baseline rates, both current and proposed, significantly exceeds the 10 percent differential cited in D.93-06-087.¹⁴³

In this decision, the Commission clearly continued to support the composite approach: "Thus, we conclude that the Commission's longstanding definition of baseline rates is implicit in Sec. 739.9(a). There is no reasonable basis to conclude that the statutory references to 'rates' in Sec. 739(b)(2) and 739.9(a) were intended to contradict the Commission's longstanding recognition that customer charges are an integral component of baseline rates."¹⁴⁴

Parties also have attempted to argue against the composite approach on the basis that an earlier section 739.9 (b) of the P.U. Code was deleted by the passage of AB327. The code section deleted bore a superficial resemblance to the composite approach, but in fact had nothing to do with the composite approach.

Here are the old PU Code Sections:

739.9 (a) The commission may, subject to the limitation in subdivision (b), increase the rates charged residential customers for electricity usage up to 130 percent of the baseline quantities, as defined in Section 739, by the annual percentage change in the Consumer Price Index from the prior year plus 1 percent, but not less than 3 percent and not more than 5 percent per year. For purposes of

¹⁴³ *Pacific Gas and Electric Company*, D.11-05-047, 2011 Cal. PUC LEXIS 301, *47-48

¹⁴⁴ *Id.*, *44.

this subdivision, the annual percent change in the Consumer Price Index shall be calculated using the same formula that was used to determine the annual Social Security Cost of Living Adjustment on January 1, 2008. This subdivision shall become inoperative on January 1, 2019, unless a later enacted statute deletes or extends that date.

739.9(b) The rates charged residential customers for electricity usage up to the baseline quantities, including any customer charge revenues, shall not exceed 90 percent of the system average rate prior to January 1, 2019, and may not exceed 92.5 percent after that date. For purposes of this subdivision, the system average rate shall be determined by dividing the electrical corporation's total revenue requirements for bundled service customers by the adopted forecast of total bundled service sales.

Code section 739.9 (b) was a secondary cap on the allowable level of rate increases for non-CARE tier 1 and tier 2 rates that was adopted with SB 695 in 2009. SB695 lifted the rate freeze on rates for usage up to 130% of baseline usage that existed when AB 1X was in force. SB695 allowed limited increases for non-CARE tier 1 and tier 2 of 3% to 5% based on the formula in section 739.9 (a). Section 739.9 (b) was a further cap or secondary cap on allowable rate increases.

In fact in one year, SCE could not proceed with a 3% increase for tier 1 rates because of this secondary cap, and needed to file a Petition for Modification in order to increase its customer charge and volumetric rate.¹⁴⁵ As stated in the Commission Decision adopting SCE's Petition,

The effect of D.11-05-047 is to include any customer charge together with the Tier 1 volumetric rate in what is known as the composite baseline rate. Because in D.11-05-047, we concluded that a customer charge must be inferred to be part of the baseline rate percentage increase limits of Section 739.9(a), SCE now argues that it should be allowed to request increases to both its existing non-CARE customer charge and its non-CARE Tier 1 volumetric rate annually by the same percentage, with the composite baseline rate

¹⁴⁵ *Southern California Edison Company*, D.11-12-037.

remaining subject to the further limit imposed by Section 739.9(b).¹⁴⁶

Section 739.9 (b) was a secondary cap on allowable rate increases, and had nothing to do with the composite approach for examining whether an increasing block rate exists. The deletion of Sections 739.9 (a) and 739.9 (b) eliminated the limits on allowable rate increases for tier 1 and tier 2 rates, which gives the Commission more discretion in pursuing rate reform in this proceeding. However, the deletion of this section has nothing to do with the composite tier method, and it does not eliminate the Commission precedents for this approach.

G. Conclusion

In summary, ORA opposes fixed charges based on common pricing strategies in unregulated competitive industries and on what the NCO method assumes about what costs are fixed and what costs are variable. Moreover, there are other ways to address the utilities' alleged fairness and cross-subsidy issues, through minimum bill provisions and various solutions specific to NEM facilities being addressed in R.14-07-002.

Nevertheless, if the Commission is inclined to adopt some kind of fixed charge, it must take into consideration that a significant reduction in the tier rate differentials will likely occur in the same time frame. It would be better to defer the institution of any fixed charges until tier reduction is well underway. It also would be better to institute default TOU pricing before fixed charges are considered because there is a much stronger marginal cost basis for TOU rates than there is for fixed charges. The Commission needs to be careful to not impose on ratepayers multiple changes at once that, cumulatively, will result in unacceptable bill impacts.

¹⁴⁶ D.11-12-037, pp. 4-5.

VI. CARE, FERA AND MEDICAL BASELINE

A. CARE Proposals

ORA's proposed changes to CARE rates are dependent upon changes to non-CARE rate structures. ORA's proposed changes to non-CARE rate structures are discussed in Section IV above and in ORA's testimony for each utilities' rate designs. If the Commission adopts ORA's proposed non-CARE rate structure, the Commission should adopt corresponding CARE rate structures between now and 2018.

ORA's calculation of the CARE discount does not include the climate dividend. ORA fully supports the Commission's policy to not include the climate dividend¹⁴⁷ because the twice yearly climate credits provide money to ratepayers to compensate for the higher prices they are paying for goods and services. The providers of these goods and services pass on the costs of carbon credits to their customers, and the climate credits are designed to partially offset these higher costs. The climate credits could have been returned to ratepayers directly by check, but it was easier administratively and cheaper to pass them on to customers as credits on their bills. Because the climate credits have no relationship to standard IOU rates, they cannot be properly considered as part of a discount to CARE rates. The Commission's current policy on this issue is logical and should be continued.

1. PG&E CARE Rates

ORA supports bringing PG&E's effective CARE discount to within 30 and 35 percent of the non-CARE rates on a reasonable glide path. PG&E proposes to do so by 2018,¹⁴⁸ but this would result in unfair bill shock to CARE customers, as shown below many PG&E CARE customers see large bill impacts for 2015-2018.¹⁴⁹

¹⁴⁷ This policy was adopted by the Commission in phase 2 of this OIR for summer 2014 rates.

¹⁴⁸ Ex. PG&E-102, p. B-2-1.

¹⁴⁹ Ex. ORA-110, attachment to PG&E's response to Q.3c.

Impact Range from Prior Year	Percentage of CARE Customers in Range			
	2015	2016	2017	2018
Bill Decrease >\$10	0.0%	0.0%	0.0%	0.5%
Bill Decrease From >\$5 to \$10	0.0%	0.0%	0.0%	0.1%
Bill Decrease From >\$0 to \$5	0.1%	0.0%	0.0%	0.8%
Bill Increase From \$0 to \$5	9.4%	57.5%	64.4%	60.6%
Bill Increase From >\$5 to <\$10	69.1%	41.8%	32.9%	34.1%
Bill Increase From \$10 to <\$15	14.7%	0.7%	2.7%	3.3%
Bill Increase >= \$15	6.7%	0.0%	0.1%	0.6%

The table shows that a large percentage of CARE customers would see bill increases of more than \$5, which means that they are likely to see bill increases by more than ten percent per year. This can be validated by reviewing PG&E’s detailed bill impact table, which shows that almost one third of CARE customers see 13 – 36% bill increases¹⁵⁰ between 2014 through 2015, another 13% to 54%¹⁵¹ between 2015 through 2016. Furthermore, these detailed bill impact results were based on a very mild (2.1%) annual revenue requirement increase assumption. ORA proposes that the CARE rates transition be more reasonable by reducing the CARE discount by one to two percent per year subject to bill impact evaluations in the rate design proceedings.

2. SCE CARE Rates

Currently SCE has an average CARE discount of approximately 32.5%.¹⁵² This is the middle of the range of 30 to 35 percent specified in PU Code §739.1 (c) (1). ORA has attempted to maintain the CARE discount at the current level of 32.5 percent. ORA’s proposed rates would result in a 32.5% CARE discount without including the climate credit, and would be 34.5% if the climate credit were included. Both of these results comply with the requirement that average CARE discounts be between 30 and 35 percent.

¹⁵⁰ Ex. PG&E-106, p. A4-2.

¹⁵¹ Ex. PG&E-106, p. A4-10.

¹⁵² Ex. ORA-101, p. 4-10.

3. SDG&E CARE Rates

SDG&E's current Tier 3 CARE rate reflects a higher discount compared to the equivalent non-CARE rate than do the discounts for the other two CARE tiers. SDG&E proposes to apply the same line item discount to each CARE rate tier in order to provide the target level of effective CARE discount. As discussed before, SDG&E proposes to rapidly decrease the higher Non-CARE tiered rates. In fact, the decrease is rapid enough that the higher tier CARE rate can remain near its current level throughout the transition period and remain in compliance with AB 327.

ORA is open to the concept of applying the same discount to each CARE tiered rate in the future, but this could not be done during the transition period between 2014 and 2018 with ORA's Non-CARE rates. Because ORA's non-CARE upper tier rates decrease more slowly than do SDG&E's, applying a uniform discount to each tier in ORA's rates would require increasing the CARE Tier 3 initially, and then decreasing it as the Non-CARE tier rate differential is decreased. In order to prevent "yo-yoing" the rate, ORA has chosen to hold the upper tier CARE rate at its current level through 2016.

ORA also proposes to delay a further reduction in the effective CARE discount from 38% to 36% until 2017. This is because CARE customers, along with Non-CARE customers, will see significant changes to their rate design in both 2015 and 2016.

B. FERA Proposals

ORA recommends that the Commission adopt a standard 20% discount off the entire electric bill for the Family Electric Rate Assistance program (FERA).¹⁵³ FERA provides an option for low-income families who do not meet the more stringent eligibility requirements for CARE. It allows eligible customers to pay Tier 2 prices for Tier 3 usage. Thus it favors customers whose maximum usage is 131% to 200% of the baseline levels.

SCE and SDG&E propose having 10 percent effective FERA discounts, while PG&E proposes a 12.5 percent discounts. Initially SDG&E did not propose a uniform percentage deduction for all FERA customers, but simply noted that under its proposal,

¹⁵³ Ex. ORA-101, p. 6-3.

FERA customers will continue to be billed Tier 2 rates for Tier 3 usage.¹⁵⁴ However, in reviewing the other IOU's testimony and proposals, SDG&E adopted the uniform 10 percent discount for FERA.¹⁵⁵

PG&E and SCE arrived at their proposed FERA discounts by calculating five-year averages of the effective FERA discounts for all participants in their programs. SDG&E adopted the same from SCE. Since only participants with Tier 3 usage currently receive FERA discounts, the overall effective discounts for all participants will be far less than the actual FERA discounts for Tier 3 usage. For instance, PG&E's Tier 3 discount for FERA customers is 53% while its five-year average effective discount for all tiers is only 12.5%.¹⁵⁶

Thus, the utilities use of a five-year average and uniform discount is neither neutral nor fair to those customers who currently benefit the most from the FERA program. The utilities provide no reason why they chose a five-year average instead of a three-year average or what why they feel FERA participants deserve an effective discount rate that is three times less than the legislative mandate required for CARE customers.

The utilities' proposals would create an illogical difference in the discounts for the two programs going forward. The CARE discount has grown substantially since 2001. Rather than reduce the discount to the pre-2001 level of 20%, AB 327 recognized the need to consider how the CARE discount had grown and to reset the discount at 30% to 35% on average. To keep the CARE and FERA program on a reasonably comparable basis, the FERA discount must increase as well.

The only reason the utilities seem to have for setting the effective FERA discount rate at 10 percent to 12.5 percent is to reduce the discount FERA customers get relative to other low-income customers. This logic was most evident in the fact that SDG&E did not even make the recommendation for a uniform discount for all of its FERA customers until

¹⁵⁴ Ex. SDG&E-107, p. CF-36.

¹⁵⁵ SDG&E/Fang, 14 RT, 1781, lines 6-24.

¹⁵⁶ Ex. ORA-101, p. 6-13.

it saw what PG&E and SCE had proposed.¹⁵⁷ Therefore the Commission should adopt ORA's recommendation for FERA participants to make the discounts they receive more comparable with discounts of others in the similarly situated customers.

C. Medical Baseline

The Utilities propose maintaining the Medical Baseline program essentially as it currently exists, except that SDG&E proposes to transition Non-CARE medical baseline customers out of receiving CARE rate benefits as they currently do in SDG&E's service territory. With respect to CARE Medical Baseline programs, ORA supports the continuation of the Medical Baseline discounts at their current discount level. Commission should not change the review, audit and reporting protocols for Medical Baseline customers. SCE recommends that some medical devices be ineligible for a Medical Baseline coverage.

VII. IMPACT CONSIDERATIONS OF RATE DESIGN PROPOSALS (PHASE-IN SCHEDULE IMPACTS, CONSERVATION IMPACTS, AFFORDABILITY/BILL IMPACTS/ENERGY BURDENS, IMPACTS TO SOLAR PV CUSTOMERS, ETC.)

A. Phase-In Schedule Impacts

ORA discusses phase-in schedule impacts for each of the IOUs in Section IV of this brief.

B. Conservation Impacts

In his rebuttal testimony, IOU-contracted witness Ahmad Faruqui introduces three new methods to estimate the energy conservation impacts of PG&E and SCE's rate design proposals.¹⁵⁸ He reports on similar estimates made by SDG&E's own witness. Dr. Faruqui's three methods generally indicate that the introduction or increase of a monthly fixed charge for PG&E and SCE would result in an increase in energy consumption. Thus, Dr. Faruqui's analysis supports ORA's concerns that a fixed charge

¹⁵⁷ Ex. SDG&E- 107, p. CF - 37.

¹⁵⁸ Ex. PG&E-111.

conflicts with this rulemaking's Rate Design Principle #4, which states that rates should encourage conservation and energy efficiency.

Dr. Faruqui recommended that all three approaches should carry roughly equal weight in an analysis of the impact of rate design on conservation.¹⁵⁹ However, one of the methods proposed by Dr. Faruqui, the Average Price methodology, is not consistent with this Rulemaking's goals of promoting a better understanding of rate design through customer education and outreach. That method assumes that customers only react to the total bill and not to individual elements of the bill. The other two methods unequivocally show that the introduction of a fixed charge would result in less conservation and more energy consumption for informed customers.

Dr. Faruqui calls the three methods on which he relies the "Tier-Specific," "Average Price," and "Marginal Price" methods. In the "Tier-Specific" approach, "the price change in each tier is assumed to affect the consumption in that tier. Specifically, for each tier, the new price is compared to the old price."¹⁶⁰ The Average Price methodology "assumes that customers are unaware of (or don't understand the complexity of) tier-specific prices, but instead only respond to changes in the average all-in price."¹⁶¹ In the Marginal Price methodology, "the new price of each customer's marginal (i.e., highest) tier is compared to the old price of the marginal tier."¹⁶²

¹⁵⁹ Ex. PG&E-111, p. 14.

¹⁶⁰ Id., page 5.

¹⁶¹ Id., page 5.

¹⁶² Id., page 6.

The results for PG&E and SCE are shown below:

CONSERVATION IMPACTS FOR PG&E¹⁶³

	Introduce Fixed Charge	Collapse to Two Tiers	Reduce CARE Discount	Total
Average Price	-0.2%	-0.4%	-0.6%	-1.2%
Tier-Specific	0.2%	-0.2%	-0.6%	-0.6%
Marginal Price	0.9%	1.3%	-1.0%	1.2%

CONSERVATION IMPACTS FOR SCE¹⁶⁴

	Increase Customer Charge	Collapse to Two Tiers	Reduce Baseline Allowance	Total
Average Price	-0.2%	-0.8%	-0.1%	-1.1%
Tier-Specific	0.1%	-0.3%	-0.2%	-0.5%
Marginal Price	0.6%	1.6%	-0.3%	1.8%

Of the three methods, only the Average Price methodology shows the introduction of a fixed charge causing a decrease in consumption for both utilities. Whereas the other two methods show that adding or increasing an existing fixed charge will increase consumption, which runs contrary to the Commission’s energy conservation goals. The Marginal Price method shows the strongest effect. The effect for SCE is smaller than for PG&E but is still in the same direction. For PG&E, the introduction of a fixed charge results in absolute changes nearly as large as PG&E’s other two major proposals of collapsing to two tiers and reducing the CARE discount. For SCE, increasing the

¹⁶³ Id., page 14.

¹⁶⁴ Id., page 18.

Customer Charge will have a larger absolute change than will reducing the baseline allowance.

1. According to the IOU-Sponsored Analysis, Some Less-Informed Customers may Use Slightly Less Electricity with the Introduction of a Customer Charge

As stated above, the Average Price method is the only methodology that shows that introducing or increasing a fixed charge reduces consumption. However, ORA finds this method the least compelling in this proceeding intended to “ensure for the foreseeable future that rates are both equitable and affordable while meeting the Commission's rate and policy objectives for the residential sector.”¹⁶⁵ ORA supports Principle #10, which states that transitions to new rate structures should emphasize customer education and outreach that enhance customer understanding and acceptance of new rates. Accordingly, new rates ideally should be introduced assuming that the utilities will adequately inform customers of their rate structures and choices. It also is reasonable to assume that the proposed new rate, such as ORA’s default TOU rate with a baseline credit, will be easy to understand. Indeed, Principle #5 states that rates should be understandable.

The IOU-sponsored testimony cites merely one paper to support the assertion that customers respond to average, rather than marginal, prices.¹⁶⁶ This paper relies on studies and data from 1997 to 2007, well before the California IOUs spent billions of dollars on the mass-implementation of Advanced Metering and Smart Grid initiatives that provide easier access to more granular consumption data. The world of information was also different in 1997 than it is today. Utility customers now have access to smart phones, text alerts, and the widespread adoption of email and the internet unavailable to the general public fifteen years ago.

¹⁶⁵ R1206013. OIR 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. Page 1.

¹⁶⁶ Koichiro Ito, “Do consumers respond to Marginal or Average Price?” *American Economic Review*, Vol. 204, Issue 2. 2014, 537-563.

In addition, the paper relies on an expectation of “bunching of customers at the kink points of nonlinear price schedules,”¹⁶⁷ as found in taxation and labor supply, when workers are demonstrated to work less just prior to their incomes crossing certain thresholds.¹⁶⁸ Ito did not find that such bunching occurs with electricity pricing. In other words, a large percentage of customers do not consume just enough electricity so as not to cross into a more expensive rate tier. Thus he assumed that customers do not respond to the marginal price.

However, controlling ones electricity use may not be as easy as it is to work less. A customer in the middle of a billing cycle typically cannot cease using electricity for the rest of the billing cycle to produce the bunching Dr. Ito expects to find because electricity is a basic necessity of modern living. Even if users know that they have crossed into a new tier of electricity through the IOUs’ new AMI-enabled tools such as tier notifications, this serves more as a general reminder for households to conserve, not as a hard upper usage limit.

2. Informed Consumers Would Use More Energy with the Introduction of a Fixed Charge.

The other two methodologies described in the IOU joint testimony are the Tier-Specific and the Marginal Price methods. Both assume that customers are aware of tiered pricing. Dr. Faruqui’s analysis shows that this greater awareness will cause customers to respond to a new fixed charge by increasing consumption. ORA finds that both of these methodologies to be useful for estimating the conservation effects of ORA’s rate design, though it finds the Marginal Price methods to be more the compelling of the two.

¹⁶⁷ Id. 2014, page 538, last paragraph.

¹⁶⁸ For example, a worker may work less to avoid moving into a new tax bracket, or if their increased income would result in disqualification for certain benefits with a means test such as food stamps or Medi-Cal.

a) The IOU's Tier-Specific Methodology, Despite its Shortcomings, Confirms ORA's Concern that Fixed Charges Result in Consumers Conserving Less

The Tier-Specific methodology essentially is the methodology built into PG&E's bill calculator model. While ORA finds it more compelling than the Average Price methodology, we noted the following problems with it in our opening testimony:

... it is unclear that a customer would respond to changes in the price of each tier. It could be argued that customers may only respond to the change in price of their marginal rate (in other words, the rate of the highest tier paid by a customer). This would change the IOUs results because now the change in the price of tier 1 would only impact the usage of tier 1 customers, and while upper tier customers have use in the lower tiers, their use would only be impacted by the change in price of their highest tier. We would expect that, under this assumption, the conservation impacts would be smaller than reported because the increases in lower tier rates will impact less usage.¹⁶⁹

These potential weaknesses of the methodology were explored by TURN in cross-examination. In his responses, Dr. Faruqui stated that the method is not suggesting that customers are aware of the different rates in different tiers, but are unaware of their consumption or where they end up. Indeed, both prices and consumption are on the bill. He defends the method by saying that it mirrors how customers will end up in different tiers every month, but one would think that the Marginal Price method would take this into consideration and will not automatically assume that a given customer ends up in the same tier every month. He finally resorted to saying that the method treats each tier of usage as "different commodities that the customers are buying."¹⁷⁰ Though he didn't elaborate, presumably he means that consumers look at discretionary electricity usage as a different commodity from essential and necessary usage. While this Tiered-Specific

¹⁶⁹ Ex. ORA-101, pages 7-5 to 7-6.

¹⁷⁰ Joint Utilities/Faruqui, 17 RT 2351 - 2356.

method, while problematic in that it is not very clear in what it is trying to represent, it is still superior to the Average Cost method.

b) The IOU's Marginal Price Methodology Confirms ORA's Concern that Fixed Charges Result in Consumers Conserving Less

Of the three methodologies, the Marginal Price methodology shows the strongest impact from introducing a fixed charge. The Marginal Price method, as proposed in the IOU Joint Testimony, assumes that customers respond to the price of the marginal tier, because this is the actual price that they avoid when reducing consumption.¹⁷¹ This is the methodology best represented by customers who “study their bill carefully and understand specifically their marginal tier and the price of that tier.”¹⁷² This is also the methodology that third party vendors, solar contractors, or energy efficiency companies use when offering customers estimates of savings on their bill if they purchased their products and services.¹⁷³ Introducing a fixed charge generally will decrease the Marginal Variable Price of electricity, causing customers to increase consumption.

ORA has some uncertainty about the inclusion an income elasticity effect in the Marginal Price method. This variable appears to apply an income elasticity to the prices in the infra-marginal tiers based on an assumption that rate redesign will increase these prices, and thus reduce disposable income and reduce overall consumption. The income elasticity is not applied directly to the differing incomes of different utility customers.¹⁷⁴ The effect of including this variable, on a practical level, seems to be to import into the analysis some elements of the Tier-Specific methodology, though with a lower elasticity. It increases the overall conservation effect of reducing the tier rate differentials, but presumably the income elasticity variable acts independently of the fixed charge variable in the model.

¹⁷¹ Ex. PG&E-111, p. 6.

¹⁷² Joint Utilities/Faruqui, 17 RT. 2357, lines 2—8.

¹⁷³ Joint Utilities/Faruqui, 17 RT 2358, lines 2—11.

¹⁷⁴ Joint Utilities/Faruqui 17 RT 2359 – 2 371.

On balance, ORA agrees with Dr. Faruqui's analysis with regard to its conclusion that introducing or increasing a fixed charge will tend to result in consumers using more electricity. These negative conservation impacts would be greatest for California's more informed and conscientious users looking to invest in energy efficiency or conservation. These are the customers who generally make the largest contributions to reducing energy consumption.

C. Energy Burden Assessment

ORA did not use the energy burden statistics that the utilities provided in evaluating the CARE, FERA, or Medical Baseline discounts.¹⁷⁵ It designed its CARE rates based on the magnitude of bill impacts as well as the goal of transitioning toward an effective CARE discount that is established by PU Code 739.1 (c) (1). ORA did not use the energy burden data because it can be misleading. Energy expenditures, when comparing to rent, food, and transportation costs, tend to be smaller, which could falsely lead to an impression that energy burden is small. However, even if the energy burden is small, a customer who cannot afford to pay for it can potentially jeopardize his health or safety. Therefore, heavily relying on energy burden as a measure for energy affordability would be wrong. In contrast, bill impacts provide a more realistic indicator about how a customer's bill could change due to rate changes and whether that could jeopardize his ability to pay for the next bill (or next year's bills).

The utilities argue that California's energy burden statistics are among the lowest in the country. However, recent studies show that a comparatively low energy burden did not alleviate ratepayer energy insecurity because of California's high cost of living. SCE and SDG&E allege that their service-area specific energy burden levels are about half California statewide overall energy burden of 4.1 percent for low income ratepayers. But the statewide energy burden data do not tell a comprehensive story of the impact of rates on the economic activities of low income customers. The problem lies in how the energy

¹⁷⁵ Ex. ORA-101, pp.6-6 through 6-8.

burden statistic is calculated. The SCE and SDG&E calculated what the LINA report calls an “overall energy burden” measure, whereas that report now recommends using a “customer energy burden.”

The overall energy burden measures particular categories of customers (like CARE) by taking the sum of all customers’ bills in that category over the sum of all the customer incomes in the category. Consequently, a single customer with a very high income relative to all the other customers in the group obscures the energy burden of a significant number of customers with very low income or no income relative to the group. Recognizing that the “customers with the most income tend to wash out the results of customers with less income” in the same bin or category, the authors of the LINA report developed a more accurate energy burden methodology called the Customer Energy Burden .

The customer energy burden analyses customer specific data by taking the ratio of the energy bill to income for each customer in a given category (like CARE), then averaging the results, ensuring that each customer is equally weighted and that the incomes of customers in the upper strata of the categories do not “wash out” the small incomes. PG&E acknowledged the customer energy burden methodology and noted that, while it estimated an overall energy burden for the state of California of 4.1 percent, the customer energy burden was 9.9 percent, more than twice the overall energy burden. However, PG&E attempts to diminish the import of such a high customer Energy Burden level by arguing that it compares favorably with a nation-wide customer energy burden of 13.6 percent.

Neither SCE nor SDG&E analyzed the customer energy burden data for their service territories. Further, the data itself on which the utilities rely, for calculating their energy burden estimates, are unreliable for that purpose. While the Commission had required the utilities to provide energy burden statistics in their May 16, 2014 Supplemental Testimony, without specifying the method or level of detail needed to develop the data, a closer analysis of the utilities testimonies shows that they had failed to use data consistent with the kind used to developed the energy burden concept or the

LINA report. The Commission should place little weight on the IOUs' energy burden results for their rate proposal.

VIII. OPT-IN TOU RATES AND OPT-IN TOU PILOTS

The IOUs propose to conduct opt-in TOU pilots starting in 2015 and default TOU pilots in 2018. The IOUs already have opt-in TOU rates, and will continue to offer some of these rate options to residential customers. However, participation on these rate schedules currently is extremely low.¹⁷⁶ To allegedly improve participation, the utilities have proposed various new opt-in TOU schedules, which are discussed in Section A below.

To facilitate the eventual transition to TOU rates, the IOUs need to get started figuring out how to best educate their customers about such rates. Various opt-in pilots, discussed in Section B below, are a good opportunity to do so. Customers need to be educated about TOU rates and their ability to opt-out to tiered rates, and the best way to communicate with customers can be determined in these pilots. The IOUs also need to work on identifying their most vulnerable customers and then reach out to provide extra assistance to these customers. This too can be done in conjunction with the opt-in pilots. ORA is sympathetic to the recommendations made by other consumer groups to consider exemptions from default TOU rates for additional groups of vulnerable customers besides those already exempted in P.U. Code Section 745.

ORA proposes that we learn as much as we can between now and 2018, and that the Commission direct the IOUs to start working on customer education and outreach. ORA proposes that default TOU rates begin in 2018, at which time the Commission can start with TOU rates having very mild on-peak to off-peak rate differentials. Customers would still have the ability to opt-out to tiered rates and would have a year of bill protection under TOU rates.

¹⁷⁶ For example, see Ex. PG&E-105, p. 20, Table 7.

A. Opt-In TOU Rate Proposals

1. Revenue Shortfall Issues

A problem with PG&E's and SDG&E's opt-in rate proposals is that they might stimulate a migration of the larger customers off of the tiered default rate, creating a revenue shortfall. A solution to this problem was recently adopted in the SCE RDW Proceeding (A.13-12-015).¹⁷⁷ In that proceeding, ORA raised concerns that offering a non-tiered TOU rate, while simultaneously offering a steeply tiered non-TOU rate as the default, potentially creates large revenue shortfalls as the larger customers who would save money by avoiding tiered rates (structural beneficiaries) self-select and pay lower bills. It will be important to monitor the revenue deficiencies of customers moving from tiered rates to TOU as tiered rates are being restructured.

With respect to its non-tiered TOU proposal, PG&E states: “[t]o the extent such shortfalls occur, they will be recovered within the residential class over an appropriate period of time and enrollment in Schedule E-TOU will be temporarily capped as appropriate.”¹⁷⁸ ORA agrees with this approach and further recommends that PG&E monitor revenue deficiencies from all TOU offerings. ORA further proposes that a threshold or “trigger” amount be established based on the level of shortfall that would compromise a measured restructuring of the default tiered rates. ORA recommends that parties collaborate to establish the proper trigger in the next rate design proceedings.

SDG&E's optional TOU rate is particularly problematic because it includes a large “demand-differentiated monthly service fee” (“DDMSF”). The DDMSF could lead to serious revenue shortfalls because it allows a significant reduction in the volumetric rates, making them much lower than the upper tier rates on the default tiered rate. If the Commission were to approve SDG&E's optional TOU rate, or another form of non-tiered TOU rate, ORA recommends placing a cap on the percentage of customers that can select this rate during the interim transition period when the tier differentials on the

¹⁷⁷ *Southern California Edison Company*, D.14-12-048.

¹⁷⁸ Ex. ORA-101, p. 3-18.

default rate remains high. ORA recommends that the revenue shortfall that may materialize be recovered from the entire residential class based on the system average percentage change.

2. PG&E's Optional TOU Rate

PG&E's main TOU proposal is an optional, non-tiered TOU rate that it calls Schedule E-TOU.¹⁷⁹ Apart from this, PG&E also provides a high-level overview of a suggested TOU pilot program to assess different variables, including "Presenting baseline as two tiers versus a 'baseline credit.'" PG&E states that its intent is "that significantly more residential customers opt-in to TOU rate plans over the next several years."¹⁸⁰ ORA finds, however, that the proposed Schedule E-TOU is likely to only attract larger-usage customers. To broaden the appeal of voluntary TOU rates in the time period before residential customers are defaulted onto TOU, ORA recommends that PG&E develop at least one optional TOU rate schedule with a meaningful baseline credit to attract lower-usage customers. Such a rate would also be more consistent with the default TOU rate that is allowed by PU Code §739 when default TOU becomes permissible.

PG&E admits that Schedule E-TOU is not going to be marketed to all of its customers, stating that "when PG&E begins marketing its opt-in TOU in 2016, [it] plans to target high use customers with the most load to shed. PG&E will not target lower usage customers."¹⁸¹ ORA disagrees with this approach. All customers, including low use, should have the opportunity to save costs by shifting load away from peak hours. PG&E states that its main reason for proposing a non-tiered TOU optional rate is that such a rate is simpler to market. However, marketing simplicity is not a sufficient basis for withholding a TOU rate option that (1) encourages lower-usage customers to enroll in TOU and (2) provides for a more seamless transition to default TOU.

¹⁷⁹ Ex. ORA-101, p.3-16, citing Ex. PG&E-101, p. 2-52.

¹⁸⁰ Ex. PG&E-101, p. 2-57.

¹⁸¹ Ex. PG&E-109, p. 3-8. See PG&E/Pitcock, 12 RT 1472, lines 16-19: Q: So is it your position that there's no need to introduce some form of TOU rates that can attract small customers? A: That's correct.

A straightforward way for PG&E to implement ORA’s recommendation would be to incorporate an optional baseline credit into its proposed non-tiered TOU rate schedule. Specifically, the baseline credit should be calculated as the difference between the weighted average of non-baseline rates and the baseline rate. Over the next few years, the amount of the baseline credit would decrease as the differences between the tiered rates decrease. For ORA’s illustrative 2015 –2017 rates under a 2.1 percent annual RAR increase scenario, the applicable baseline credits for PG&E’s proposed Schedules E-TOU and EL-TOU are shown below.

**Illustrative baseline credits applicable to PG&E
Schedules E-TOU and EL-TOU**

	2015	2016	2017
E-TOU	\$0.09967	\$0.09112	\$0.08204
EL-TOU	\$0.03833	\$0.04820	\$0.04800

3. SCE’s Optional TOU Rates

As previously stated, the Commission adopted a recent settlement in SCE’s Rate Design Window (A.13-12-015), which is a good starting point for offering optional TOU rates. The settlement would allow three separate TOU rates. Schedule TOU-D-T, a two tiered rate, would remain open, and SCE also would offer two new TOU options, TOU-A with a baseline credit and TOU-B without a baseline credit and with a \$16 customer charge. TOU-A is designed to appeal more to smaller users and TOU-B would appeal more to larger users. Schedule TOU-D-T also differs from TOU-A and TOU-B in that the TOU periods are different.

According to the Settlement, the un-tiered TOU-D rate is subject to an enrollment cap of 200,000 customers, which is roughly 5% of residential customers. This is intended

to mitigate any potential revenue shortfall that may arise.¹⁸² These three TOU rate options should be studied for customer acceptance and for success in reducing peak demand. This information is important for providing guidance concerning the optimal default TOU rates when the Commission adopts default TOU rates.

4. SDG&E’s Optional “Cost-Based” TOU Rate

a) Schedule TOU-D-C

SDG&E currently offers a TOU-DR rate, which is tied to the default residential tiered rate, but the enrollment on this rate is extremely low. SDG&E proposes to close this TOU-DR rate to new customers in 2015 and to offer a new TOU rate, which is labeled in its workpapers as DR-TOD-C, and proposed in the recently filed AL 2662-E-A. This rate would be a simpler TOU rate with a baseline credit and a customer charge. This rate option could be modified slightly to align more closely with ORA’s proposed default tiered rate by providing a larger baseline credit while removing the customer charge. These adjustments would require some additional modifications to the TOU rate levels to collect similar revenue. The table below presents ORA’s modified DR-TOD-C rate that reflects a higher baseline credit and no customer charge.

ORA’s Optional TOU Rate for SDG&E

2015 DR-TOD-C Rate	ORA
Period	cents / kWh
Summer On	0.39885
Summer Semi	0.34172
Summer Off	0.30285
Winter On	0.32395
Winter Semi	0.30936
Winter Off	0.28912
Credit <130% Summer	-0.14138
Credit <130% Winter	-0.14138
Customer Charge	\$0.00 / mon

¹⁸² Based on the settlement, SCE is permitted to seek a higher enrollment cap for non-EV customers in a future Rate Design Window or Phase 2 General Rate Case should SCE approach the cap due to substantial enrollment.

After the default tiered rate is reduced to two tiers, ORA recommends gradually reducing the differential between the remaining tiers. On a parallel track, the baseline credit for the optional TOU rate should be decreased.¹⁸³ ORA envisions that, in 2018, this could become the default TOU rate, with an equivalent baseline credit provided to the now optional tiered rate, as long as RAR increases are not so large as to preclude moving to two tiers by 2018.¹⁸⁴

b) SDG&E’s “Cost Based” Non-Tiered TOU with Demand-Differentiated Service Fee

SDG&E also proposes to introduce an optional, non-tiered TOU rate with a DDMSF ranging from \$28 to \$80.¹⁸⁵ ORA does not see the value or logic in offering TOU rates that attempt to avoid the “complications” of a tiered rate component but instead have the complication of a tiered monthly service fee. Moreover, SDG&E has not provided evidence that such a rate will lead to increased bill stability as SDG&E claims.¹⁸⁶ ORA expects only sophisticated, very high-usage customers would be interested in such a rate option, and many of them would likely prefer a TOU rate meant for larger customers to have a much smaller customer charge, if any. As mentioned repeatedly in hearings, SDG&E plans to rename the DDMSF feature so customers will understand the concept. ORA submits that if there were an easy way to explain the concept, SDG&E would already have suggested a name for this feature that would not confuse customers.

¹⁸³ ORA provides illustrative DR-TOD-C rates for 2015-2018 in Appendix B to Ex. ORA-101.

¹⁸⁴ The DR-TOD-C rate designed by SDG&E and modified by ORA is an attractive, optional TOU rate that ORA supports as a way to encourage customers to adopt a TOU rate. However, ORA is open to further discussion regarding the details of an optimal TOU rate design, such as the assignment of capacity costs to different periods and the length of those periods, in future proceedings that will determine the structure of a default TOU rate in 2018.

¹⁸⁵ Ex. ORA-101, pp. 5-14 through 5-17.

¹⁸⁶ On page 46 of Ms. Fang’s testimony, SDG&E suggests that a DDMSF “[provides] for greater bill stability as customers become accustomed to the concept of demand.” While this may be true as a customer becomes familiar with the concept of demand, another source of bill instability is introduced in that the customer’s monthly bill would leap by \$10 or \$20 upon moving into a higher kW bracket. Overall, ORA does not see that this approach provides for greater bill stability than any traditional method for collecting distribution costs from residential customers.

For these reasons, ORA opposes SDG&E offering its proposed TOU rate with a DDMSF even on an optional basis. ORA is comfortable with SDG&E primarily marketing a simple TOU rate with a baseline credit designed to mirror the tier differences that would exist in the default rate. Such a rate does not pose a danger of revenue shortfalls and would be fair to all customers. ORA would be open to SDG&E also offering an optional non-tiered rate with a more moderate customer charge as PG&E and SCE propose. If the Commission agrees, then SDG&E should be directed to design such a rate.

B. Opt-In TOU Pilot Proposals

1. Opt-In TOU Pilots Can Be Informative

The IOUs have stated that they can learn much through testing pilot TOUs and offering new TOU rate options. ORA agrees. The following are a few examples, which are far from the complete list of subjects that the IOUs note that they can learn from the pilots. For instance, PG&E points out:

The pre-2018 pilot will help PG&E learn the most effective ways to communicate and implement aspects of TOU programs, which will be highly relevant regardless of whether the CPUC ultimately chooses an opt-in or a default TOU approach.¹⁸⁷

Section 745 would allow an “experimental pre-opt-out TOU pilot,” whose structure requires an affirmative response from the customer to participate in the Pilot....¹⁸⁸

SCE referred to its pending Rate Design Window Application, A.13-12-015, in which it sought Commission approval for a non-tiered TOU rate with two options, one benefiting low-usage customers (containing a baseline credit) and one benefitting higher-usage customers (without a baseline credit). SCE notes:

SCE’s rates will be the first cost-based, non-tiered residential TOU rates of general applicability that are offered among the

¹⁸⁷ PG&E Opening Brief on Legality of pre-2018 default pilot.

¹⁸⁸ Id.

three IOUs. This will provide an important opportunity for the Commission to **learn about the pace of customer adoption of (and retention on) these optional rates, the costs of educating customers and responding to their inquiries, the most effective means of educating and recruiting customers, and patterns or any in potential usage shifting owing to migrations from tiered rates to TOU rates.**¹⁸⁹

SDG&E acknowledges that the constraints imposed by AB327 are not optimal, but has proposed a randomized treatment design to simulate, to the maximum degree possible, some of the benefits of a default pilot.¹⁹⁰

2. ORA Recommends Modifications to IOUs' Pilots

Chapter 3 of SDG&E's Testimony presents a proposal for experimental TOU pilot rates testing three different on-peak periods, one with seven hours and two with four hours.¹⁹¹ ORA supports the concept of piloting different on-peak periods within optional TOU rate designs. The exact hours that will be used for these pilots will depend on the outcome of SDG&E's RDW Application (A.13-01-027). However, ORA objects to SDG&E's plans to test different TOU periods using its "cost-based" TOU option with a DDMSF.

ORA doubts whether a study intended to test customer reactions to different time of use periods would be effective if using a rate that is likely to be unattractive to all but a very small subset of customers. It is ORA's position that pilot TOU studies should test a rate that looks remotely similar to the one that could be offered in 2018 as the default rate. Though the extent to which results from opt-in pilots can be used to inform decisions about default pilots or default TOU has been questioned, the results of an opt-in pilot would be more useful to this effect without the DDMSF feature.

In addition to the un-tiered TOU pilots, IOUs should conduct pilots with baseline credits since this form of TOU would be the default design as required by PU Code

¹⁸⁹ SCE Opening Brief on Legality of pre-2018 default pilot.

¹⁹⁰ SDG&E Opening Brief on Legality of pre-2018 default pilot.

¹⁹¹ Ex. SDG&E-107.

Section 745. ORA notes that its optional TOU rate might be easier to market to small customers if the baseline credit were converted to an “excess usage surcharge.” Effectively, this amounts to subtracting 14.138 cents/kWh from each of the volumetric rates shown above for SDG&E and charging customers 14.138 cents/kWh more for usage above 130% of baseline. Given that this would render the summer and winter off-peak rates lower than ORA’s proposed 2015 Tier 1 default rate for SDG&E, this approach could be marketed as an “off-peak discount plan.” The pilot should test the pricing structure with either a baseline credit or an excess usage surcharge.

3. Pilot Costs

PG&E estimates a “preliminary pilot costs of approximately \$15-20 million.”¹⁹² The other two utilities have not proposed funding levels in this proceeding but may request funding in other future proceedings. PG&E presents a vague plan for its pilot studies and its budget request should not be approved without additional detail. PG&E intends the pilots to accomplish the following goals:¹⁹³

- How to achieve optimal levels of customer acceptance, understanding and engagement associated with electric rates that have time-varying rate designs.
- Refine implementation cost estimates for outreach, education, marketing, billing and IT modifications.
- Quantify variability of bill and load impacts across key geographic, demographic and segments as well as for varying rate designs and outreach messaging.

Additionally, PG&E’s pilot would collect information needed to address the statutory requirements of Public Utilities Code Section 745(c), which pertain to default TOU rate impact on customers who live in the hot zone or hot summer weather areas. PG&E and the other IOUs should be directed to provide a more detailed plan about how the objectives would be accomplished and measured.

¹⁹² Ex. PG&E-103, p. 24.

¹⁹³ Ex PGE-109, pp. 5-3 & 5-4.

The Commission needs to place a cap on all the IOUs' pilot expenditures and make sure that such expenditures are accounted for in the results of the experiments. Moreover, the Commission should ensure that all the IOUs have a clear audit-trail to allow verification of incremental costs and reasonableness. The IOUs should provide an inventory list for all rate design pilots as well as demand responses and energy efficiency (EE) programs during the same time frame or overlapping time frame to ensure no duplication of costs and load reduction objectives.

IX. DEFAULT TOU RATES AND DEFAULT TOU PILOT PROPOSALS

A. Proposals for Default TOU Rates

Two major policy alternatives face this Commission. The first is to launch residential default TOU rates in 2018. The second is to conduct default TOU pilot studies in 2018 and 2019, after which the IOUs would submit the pilot results in 2020, subsequent to which the Commission would spend one or more years resolving any disputes about whether default TOU rates are reasonable – resulting in default TOU rates in 2021 or later, or maybe never.¹⁹⁴ ORA strongly urges that the Commission adopt the first alternative. The second clearly is long and arduous and has an uncertain outcome. It is equivalent to wearing several belts and pairs of suspenders.

ORA recommends that beginning in 2018 the IOUs offer default TOU rates that have mild on-peak to off-peak rate differentials and a baseline credit. The IOUs have three years to work on their plans to assure full compliance with the P U Code § 745 requirements. With mild TOU rates as well as the various P U Code § 745 protection mechanisms, the default implementation risk is minimal.

The Commission should firmly reject the tentative utility proposals. The IOUs' pilot default TOU proposal will lead to a substantial delay in full deployment of default TOU rates. This delay will further exacerbate “the lack of progress in realizing the

¹⁹⁴ PG&E-109, pp. 5-6 through 5-10.

Commission policy of transitioning customers to time-variant pricing.”¹⁹⁵ The second alternative also could lead to the majority of Californians seeing incorrect price signals that will discourage energy conservation during peak hours and reductions in overall energy usage.

ORA endorses default TOU rate with baseline credit for the following reasons:¹⁹⁶

- This rate structure allows customers to leverage on the advanced meter infrastructure (“AMI”), into which ratepayers invested billions of dollars.
- TOU rates are based on the cost of providing the services.
- Default TOU rates would render IOUs’ rate structures more consistent with California energy policy and the Commission’s overall rate design principles.
- The rates provide the potential for peak reduction and energy conservation, which in turn may:
 - Defer or avoid generation and system upgrades and reduce environmental impact;
 - Mitigate pressure for the IOUs to increase their revenue requirements; and
 - Allow customers to manage their bills by reducing usage or shifting usages.
- The rates align customer energy efficiency (“EE”) and distributed generation (“DG”) benefits better with the IOUs’ avoided costs.
- The time of use concept is understandable to the customers.
- The baseline credit would continue the state’s policy objective of providing affordable energy or essential needs through a baseline rate as set forth by Public Utilities (“PU”) Code §739 (c).

In the following sections, ORA explains these benefits of default TOU rates.

¹⁹⁵ Energy Division White Paper: “Staff Proposal for Residential Rate Reform in Compliance with R.12-06-013 and Assembly Bill 327,” p. 5.

¹⁹⁶ Ex. ORA-101, pp. 1-2 through 1-14.

1. Default Time of Use Rates are Preferable to Opt-in Rates

a) TOU is the Commission’s Best Alternative to Achieve Its Long Standing Policy of Applying Cost-Based Ratemaking Principles

The Commission recognized, several decades ago, that the electric utilities’ cost of serving customers varies by time-of-use. ORA presents evidence showing California’s electricity demand generally peaks during the summer afternoon and early evening hours.¹⁹⁷ The peak energy per capita in California is predicted to grow, which indicates that an already inefficient generating system will continue to become even “peakier”.¹⁹⁸ Parties involved in this proceeding also acknowledge that TOU is more cost-based. For instance, PG&E witness Dr. Keane agrees that the costs of serving utility customers vary by time-of-use and it costs more during summer on peak hours.¹⁹⁹

The IOU emphasize that they want rates to be cost-based and follow the cost-causation principles. PG&E even placed cost-causation as the most important rate design principle in this proceeding.²⁰⁰ However, the IOUs actions and proposals contradict their asserted policy. Instead of developing a plan that can ensure successful transition to default TOU rates in 2018, so that the majority of the customers would be seeing cost-based rates, IOUs instead have proposed a virtually flat two-tiered rate as their 2018 default rate, as well as years of delay through workshops, pilots and future proceedings before any significant residential TOU rate penetration can occur.

All three IOUs firmly argue that the Commission should adopt a two-tier rate ratio of 1.2 to 1.0 for 2018 regardless of how high the revenue requirement level might be in 2018. Ideally, they may prefer a totally flat rate if this were not precluded by the legal restriction that the default rate must have at least two tiers. Indeed, Dr. Keane argued that

¹⁹⁷ Ex. ORA-101, p. 1-6.

¹⁹⁸ Id., at 1-7.

¹⁹⁹ PG&E/Keane, 10 RT 1015, lines 9-12.

²⁰⁰ PG&E/Keane, 10 RT1085 lines 1-3.

a flat rate is more cost-based rate,²⁰¹ and that PG&E proposes to have the two tiers fairly close together to approximate a flat rate.²⁰² A flat rate or nearly flat two-tiered rate is not cost-based rate because the utilities' cost of service varies by time period. The flat or near flat rates are inefficient (i.e., expensive) for the ratepayers as a whole and unfairly benefit poor load factor customers.

b) Opt-in Rates Have Not and Will Not Produce Substantial Enrollment or Demand Response

An opt-in TOU rate will not produce significant demand response in the near future, nor will it produce nearly as much the demand response as will a default TOU rate. PG&E identifies the opt-in rates of Oklahoma Gas & Electric (“OGE”), the Salt River Project (“SRP”) and Arizona Public Service (“APS”) as opt-in TOU programs that achieve load shifting.²⁰³ However, these examples also show how long it takes to achieve a viable participation rate on an opt-in basis. For APS, it has taken more than 30 years for customer enrollment to reach 50 percent. For SRP, enrollment is less than 30 percent.²⁰⁴ SCE shared a recent experience of attempting to promote an opt-in TOU rate, and concluded that it could be several years before education and outreach efforts produce any significant customer enrollment to an opt-in TOU tariff.²⁰⁵ In contrast, a default TOU rate will achieve much higher enrollment as soon as the rate is implemented. While customers have the option to leave the TOU rate, it is unreasonable to assume that so many customers will opt out of the TOU rate that enrollment would be lower than if TOU were only offered on an opt-in basis.

PG&E argues that, in an opt-in rate program, the participants individually produce more demand response than in a default program.²⁰⁶ Even if this is true, the question is

²⁰¹ PG&E/Keane, 10 RT 1090 lines 27-28.

²⁰² PG&E/Keane, 10 RT 1049 lines 1-10.

²⁰³ Ex. PG&E-101, pp. 2-57 through 2-60.

²⁰⁴ Id., p. 2-60.

²⁰⁵ Ex. SCE-101, p. 49, fn 77.

²⁰⁶ Ex. PG&E-101, pp. 2-58 through 2-61.

what is more important, providing all customers a fair cost based rate or maximizing load shifting and peak load reduction from a few customers. Under an opt-in TOU program, only customers who have signed up to TOU will be shifting load and reducing peak usage. The vast majority of the customers, such as those under PG&E's proposed default two-tiered flat rate, will likely *do nothing to change behavior* during the peak hours.

The enrollment record over the last nine years of PG&E's opt-in critical peak pricing program, called the "SmartRate," shows poor progress. As shown in Exhibit ORA-114, despite an aggressive and extremely expensive marketing and outreach program, the opt-in SmartRate has produced extremely limited participation and demand response. PG&E only has signed up 130,000 customers for SmartRate, which is about 2.4% of its 5.4 million customers.²⁰⁷ Yet it has cost ratepayers \$54,563,252 to acquire these SmartRate participants, or a cost of \$420 per enrollment! PG&E had to actually pay many of these customers through a \$25 or \$50 gift card incentives to sign up for the rate.²⁰⁸

PG&E argues that it has learned lessons from marketing SmartRate in the last few years. PG&E confidently argues that it "has leveraged marketing, education, and outreach ("ME&O") "test and learn" strategies when rolling out pricing offerings and plans to use similar techniques for future rate offerings to achieve peak reduction."²⁰⁹ However, PG&E data shows that the enrollment rate per year has decreased and attrition has increased in the last few years.²¹⁰

PG&E 130,000 customers on SmartRate produce approximately 44.2 megawatts peak load reduction.²¹¹ This is nowhere near the level of demand response that can be achieved by TOU rates once they are ramped up to be fully cost based. Further, in

²⁰⁷ Table 3-2 in Exhibit ORA-114 shows that PG&E has installed 5.4 million SmartMeters since 2008.

²⁰⁸ Ex. ORA-114, pp. 6-7, Table 3-2 and Table 3-06.

²⁰⁹ Ex. PG&E-109, p. 3-18.

²¹⁰ Ex. ORA-114, Table 3-2.

²¹¹ Ex. PG&E-109, p. 3-18.

marketing opt-in TOU rates, PG&E plans to target customers who are already enrolled in the SmartRate.²¹² That means some of the customers that PG&E is able to get to sign up for the opt-in TOU will have already been contributing to load reduction, and it is questionable how much additional load reduction they will provide merely by switching to a different time varying rate. Therefore, it is unreasonable to assume that there will be any significant customer participation in or load reduction from PG&E's opt-in TOU rate – certainly not in the next few years.

This approach will lead to the majority of customers remaining on a two-tiered rate for many years to come. If the IOUs' nearly flat two-tiered rates were adopted, most customers would see little price signal that is cost-based for a long time. This would totally conflict with Rate Design Principle #3 that rates must be cost-based rates and #9 that rates provide price signals that incentivize customers to reduce peak demand and conserve energy.

Another serious problem with non-TOU rates is that the California's future resource mix, of which roughly one-third will soon be renewable, requires customers to be more responsive to the supply of energy in any given hour. If the IOUs were to offer a near flat rate, there would be little incentive for customers to shift their demand from system constrained hours to excess energy supply hours. As a consequence, the system becomes even more inefficient and ratepayers as a whole end up having to pay more.

2. The IOUs Can Minimize Default TOU Implementation Risks

a) Public Utilities Code Section 745

Several parties try to use future bill impacts to show the danger of implementing default TOU rates. However, those bill impact analyses are much too far out into the future to make them reliable. Given the many unknowns, the IOUs have made many assumptions in presenting their bill impacts, as SCE's witness Mr. Garwacki

²¹² PG&E/Pitcock, 12 RT 1477, lines 10-17.

acknowledged on the stand.²¹³ In reality, the assumptions all will change when 2018 approaches. Therefore, the Commission cannot rely on these bill impact analyses to evaluate the PU Code § 745 requirements.²¹⁴

It is also important that PU Code § 745 contains many provisions to address the risks associated with the transition to TOU rates, including bill protection, annual reports to all customers of expected bill impacts, and the requirements for non-TOU opt-out rates. In implementing these provisions, special attention must be focused on vulnerable customer groups.

Further, the IOUs need to provide adequate training to their employees, who are executing the default TOU implementation plans, so that the above-mentioned customer groups accidentally will not be defaulted to TOU rates. At the same time, the IOUs need to make sure that the message to these customers is very clear that these customers will not be placed on TOU rates unless they take affirmative action.

As stated above, customers have the ability to opt-out of TOU rates into tiered rates as specified in Public Utilities “PU” Code Section 745 (c)(6). It is incumbent on the IOUs to execute effective outreach and education programs, perhaps including a statewide campaign to alert customers that rates will be based on time-of-use in the future that emphasizes that they can opt out to tiered options. The messages should explain both the TOU and tiered rates in an easily understandable way. The IOUs should provide

²¹³ SCE/Garwacki, 18 RT 2499-2500.

²¹⁴ PU Code §745 (c) (1) requires that designated customer groups not be subject to default TOU without their affirmative consent:

- Residential customers receiving a medical baseline allowance pursuant to subdivision (c) of Section 739,
- Customers who request third-party notification pursuant to subdivision (c) of Section 779.1,
- Customers who the commission has ordered cannot be disconnected from service without an in-person visit from a utility representative (Decision 12-03-054 (March 22, 2012), Decision on Phase II Issues: Adoption of Practices to Reduce the Number of Gas and Electric Service Disconnections, Order 2 (b) at page 55), and
- Other customers designated by the commission in its discretion shall not be subject to default.

website links and toll free telephone numbers to encourage customers to seek more information to enable them to make the best choice.

P U Code §745(c)(4) also requires that IOUs provide one year of bill protection. PU Code § 745 (c) (5) further directs the IOUs to provide each customer with a calculation of the expected annual bill impacts under each available tariff when default TOU is implemented. With these provisions, customers are free from risks and any adverse bill impacts in the first year. The Commission could also adopt additional protections, such as making bill protection available on a semi-annual basis. Moreover, the bill impacts based on tariff comparison data will allow customers to choose what works best for them. ORA supports SDG&E's approach to protect customers:

SDG&E believes that customers need to feel safe as they make these energy choices. To ensure that customers are protected along their journey, SDG&E provides customers with shadow billing each month to allow customers to see directly on their bill how they would have done on their previous plan. This allows customers to get a sense of how they are performing on their new rates. In addition, SDG&E will provide customers with one year of bill protection if default TOU is selected by the Commission to be the preferred standard rate for residential customers. For customers that would have been better off on their previous pricing plan, SDG&E will credit the difference on their bill.²¹⁵

Between now and 2018, the IOUs can work on making sure that they will be able to adequately provide bill protection and shadow bills. With a combination of bill protection and shadow bills, the IOUs can sufficiently protect customers who might be adversely impacted by TOU rates, especially in hot zone areas.

²¹⁵ Ex.SDGE-102, CAW-7.

b) The IOUs Should Continue to Offer Balanced Payment Plans, and “Snap Credits”

ORA recommends that the utilities continue to provide balanced payment plan options to customers. These plans remove the summer bill volatility when TOU rates are high. In addition, the utilities should develop short-term crediting mechanisms such as SNAP credits to help customers cope with abnormally high bills caused by air conditioning use during sustained hot weather. A “snap credit” is an arrangement whereby customers who experience unusually high summer bills have the option of paying those bills over the next 3 - 6 months.²¹⁶ The IOUs should design this mechanism to be easy for customers to understand and use. The IOUs should train their customer-direct contact employees so they can competently offer useful options to customers when they contact them for assistance. This further alleviates the concern that TOU rates may cause hardship to residential customers living in hot, inland areas.

c) IOUs have Substantial Flexibility to Design Milder TOU Rates to Mitigate Bill Impact

To avoid adverse bill impacts, the initial default TOU rate in 2018 should have a mild summer on-peak to off-peak rate differential. When PG&E first rolled out its mandatory TOU rate for small commercial customers, it started with a 4 cents/kWh differential. This substantially dampens any potential bill impacts that might arise.²¹⁷ For utilities that still have more than two tiers in 2018, TOU rates should be introduced as a modest summer on-peak surcharge and year-round off-peak credit overlaid onto a tiered rate design, which ORA calls an “Introductory TOU” rate.²¹⁸ This rate design is similar to how PG&E’s SmartRate currently is structured.

SCE’s witness confirms that SCE can soften the transitions by designing a mild TOU:

²¹⁶ Ex. ORA-103, p. 1-3.

²¹⁷ Ex. ORA-101, p. 1-1.

²¹⁸ Id.

Q So if the Commission is designing TOU rates, it has the option to make the -- to make it a more mild TOU rate depending on ... what the preference is?

A They could certainly attempt to phase in to a full-cost time of use rate, again, depending on what the -- the cost basis is finalized to be. But they could certainly work the same type of a -- differential modification to soften the transitions should they choose.²¹⁹

PG&E's rebuttal testimony challenges ORA's proposed Introductory TOU rate, claiming that it is too complex.²²⁰ ORA disagrees. As demonstrated during cross examination ORA's proposal is not significantly different from, or any more complicated than, PG&E's SmartRate, which is PG&E's residential critical peak pricing program. Like PG&E's SmartRate, ORA's opt-in TOU bill shows usage and rate by tier and has a separate line item for peak usage and off peak usage.²²¹ There is no reason why this should confuse customers. Further, PG&E argues that having three tiers in addition to time varying rate is confusing.²²² However, ORA only proposes a three-tiered optional TOU rate when the default block rate has three tiers. ORA supports a two-tiered TOU rate and a two tiered block rate, when a transition to two tiers will not cause unreasonable bill impacts. As stated in ORA's testimony, "ORA recommends employing an Introductory TOU Rate concept only if the Commission is unable to transition to a two-tiered rate by 2018 that cannot be expressed using a baseline credit or excess usage surcharge."²²³

²¹⁹ SCE/Garwaki, 18 RT 2501 lines 1-11.

²²⁰ Ex. PG&E-109, pp. 3-4 through 3-5.

²²¹ PG&E/Pitcock, 12 RT 1468, lines 9-13 discussing Exhibits ORA-112 and ORA-113.

²²² Ex. PG&E-109, p. 3-5.

²²³ Ex. ORA-101, p. 1-18.

d) The IOUs Should Proactively Reach out to Customers who would be Substantially Impacted and Provide Them Integration Solutions.

In directing IOUs to implement mandatory TOU for small commercial customers, the IOUs had to proactively contacting the top 10% of the most highly impacted customers and provide them with integrated solutions to help them mitigate their bill impacts and reduce their energy usage in the future. This approach can reduce customer dissatisfaction due to bill payment challenges. It may not be practical to apply the same threshold for residential customers because there are so many of them. For 2014 summer rate relief, however, PG&E appears to have reached out to customers who receive more than a 10% or \$10 bill increase.²²⁴ ORA recommends that IOUs provide a threshold that is feasible to work with and provide rationale for why such threshold is reasonable. Parties also can work on this threshold issue through all stakeholder discussions.

e) Customers are Already Accustomed to the Time of Use Concept, Which is Not More Difficult to Understand than Tiered Rates

PG&E claimed that one of the biggest unknowns about implementing default TOU is customer acceptance:

Q If PG&E -- is there -- can you give us a list of the concerns that PG&E has with regards to unknown information at this time?

A Yeah. There's several. I'll start with sort of the biggest, which is the interplay between **acceptance**. So, how many customers enroll on a TOU rate or opt out or opt in? And under different enrollment policies, opt-in or default, what the customer impacts are under those different policies.²²⁵

Yet, as noted in ORA's testimony, customers already have substantial experience with TOU pricing.²²⁶ The pricing of telephone services used to be based on time-of-use. It

²²⁴ Ex. ORA-111.

²²⁵ PG&E/Mandleman, RT 1414, line 16.

²²⁶ Ex. ORA-101, p. 1-10.

was common practice for customers to wait until the weeknight or weekend hours to make their telephone calls to minimize their phone bills. Higher bridge tolls are charged during peak traffic hours to encourage drivers to shift their commute times to other hours. Air travel is more expensive during peak holiday seasons and less expensive at night. Everyone is familiar with “red eye specials.”

According to the “Residential Rate OIR Customer Survey,” customers appear more confused about tiered than TOU rates.²²⁷ About 75 percent of customers surveyed had been shifting electricity usage in order to save money even though they are on tiered rates. It is not clear how much outreach and education the IOUs have planned in order to improve customer understanding of tiered rates in general or the movement to a two-tiered rate in particular. PG&E testified that they were going to do “proper outreach and education [so that customers] understand how [the two-tiered inclining block] rate may impact them.”²²⁸ Yet PG&E wants to make that transition to nearly flat rates that will significantly impact small users by 2018 without study or pilots. Clearly, they are holding default TOU to a higher standard by arguing for years of additional analysis and pilots.

B. Other Parties Proposals on Default TOU Pilots

1. The Proposed Default TOU Pilots Will Result an Unnecessary Delay of Default TOU Rates

The Commission started this case in 2012 to transition from the current four-tiered rate to a more cost-based rate. PG&E proposes to perform opt in pilots in 2015 -2017, then do default pilot in 2018-2019, and get the results in 2020.²²⁹ As previously stated, the Commission then will likely have to initiate a proceeding, or open a new phase of this proceeding, to address the pilot results. This could mean another two years before default TOU rates are implemented. ORA estimates that this would bring the ultimate

²²⁷ Id., p. 1-11.

²²⁸ PG&E/Pitcock. 13 RT 1549 lines 1-3.

²²⁹ Ex. PG&E 109, p. 5-5.

implementation date to sometime in the year 2023.²³⁰ In its subsequent project time line filing, SDG&E indicates that it would then require three years to fully implement default TOU rates. It prefers to phase in default rates over a three-year period, essentially transitioning only one third of the customers each year.²³¹ This would add even more years to the timeline.

In addition, the IOUs anticipate that it will require several years to even get ready to implement default TOU because of the customer outreach and education that would be needed. This is despite the fact that the IOUs have been offering optional TOUs to residential customers for more than two decades. They were not widely promoted because most Californians did not have TOU meters they were installed a few years ago. Moreover, the IOUs have performed demand response studies for different time-varying rates almost annually.²³² Certainly there must be some lessons learned that would be applicable to TOU rates. Otherwise, why should ratepayers continue to fund such studies? Both PG&E and SCE have moved small commercial customers to mandatory TOU.²³³ Those rollouts appeared quite successful. The Commission has received very few customer complaints.

In the past, because of the technology constraints, the IOUs could not have default TOU rates even though they are the true cost-based rates. Now that the IOUs have invested billions of dollars to remove that constraint, they are unwilling

²³⁰ PG&E estimates roughly 3 years after January 1, 2019 for a proposed decision to be available to address whether to have the full default TOU not. As this is a highly contentious issue, parties would likely heavily lobby the outcome and delay the final decision further. Taking into account of additional implementation time after the final decision, the full implementation is unlikely to occur prior to 2023. (PG&E Supplemental pursuant to ALJ November 19, 2014 email ruling, p. 5.)

²³¹ SDG&E Supplemental pursuant to ALJ November 19, 2014 email ruling, p. 6.

²³² “Q But PG&E's done a load impact analysis for the E6 customers; is that correct?

A That is correct.

Q Why did you do that analysis?

A We do that analysis as a part of an annual evaluation that we've conducted since about 2008 of all the PG&E's residential and nonresidential demand response programs.” PG&E/Mandleman, 11 RT 1306, lines 15-23.

²³³ SDG&E is still transitioning its small commercial customers to default TOU.

to work hard to make the investment worthwhile. PG&E's smart meters will be reaching the end of their lifecycles before default TOU rates can be fully implemented and ramped to a fully cost-based level.

2. No Matter how Good the Design is, Pilots will Likely be Challenged Again.

Mr. Mandleman testified that one cannot completely eliminate the risk that the pilot will not translate to a full rollout:

Q: Would you agree that there are several variables that could make it so that the results of the pilot didn't translate to a full rollout results?

A: To answer that question, I refer to my previous response which is that if a pilot is done well, you greatly diminish that risk. **But you can never completely eliminate it.**²³⁴

Cross-examination also made clear that IOUs and intervenors may have different views about what aspects of TOU rates the pilots should test. For instance, intervenors would like to see TOU pilots with baseline options while PG&E appears very hesitant to do so.²³⁵ As mentioned earlier, SDG&E would like to test in a TOU pilot study with its very high and complex DDMSF, even though such customer charges far exceeded AB327 established caps for the MSF and could never be offered as part of a default rate.

3. The Pilots May be Very Costly to Ratepayers

Also, pilots may be expensive. PG&E projected a cost of approximately \$15 to \$20 million, but added the caveat that this is a very high level estimate.²³⁶ In addition, Mr. Mandleman pointed out that trade-offs have to be made, otherwise, it may not be economically feasible to conduct pilot studies:

[D]esigning a[n] effective pilot that is done in a way that you can learn from a smaller set of customers and then scale that to a service territory as large and diverse as PG&E's is a

²³⁴ PG&E/Mandleman, 11 RT 1302, lines 21-28 (emphasis added).

²³⁵ PG&E/Mandleman, RT/1408.

²³⁶ Ex. PG&E-103, p. 24.

complicated process. And there are certain trade-offs that need to get made about how many rates you design and how many customers need to participate in each of those rates in order for you to discern statistically significant outcomes. So as you increase the number of rate design variables, you increase sometimes radically the size and complexity of the pilot.²³⁷

On top of this, there are additional outreach and education costs associated with these pilots. PG&E showed other incremental costs of \$16 million for outreach, \$5 million for inquiry, and \$7 million for billing and IT during the transition period (2014 – 2018).²³⁸

X. CUSTOMER EDUCATION AND OUTREACH

A. Shadow Bills

If there are many optional rates (such as SDG&E appears to have), providing each customer with bill impacts under each optional rate may not be feasible or practical. This especially is true during the transitional period when at least two of the IOUs will have both the legacy TOU schedules as well as new TOU options in their tariff books. ORA recommends that the Commission conduct a workshop to discuss the details about how this provision can be implemented once the Commission adopts a decision in this proceeding.

B. Outreach and Education

The IOUs should be required to implement general outreach to all customers, providing education about the rate reform, potential bill impacts, strategies for minimizing bill impacts and optional rate structures. The IOUs also should be required to target highly impacted and hard-to-reach customers to ensure that they are aware and prepared for the rate reforms. The IOUs should leverage existing education and outreach efforts and funding to the greatest extent possible. Existing activities are Energy Efficiency programs, Energy Savings Assistance Programs, the California Alternative Rates for Energy program, Demand Response programs and funding collected in their general rate

²³⁷ PG&E/Mandleman, RT 1407-1408.

²³⁸ Ex. PG&E-103, p. 17. PG&E did not separate out costs between pilot and other rate reform activities.

cases.²³⁹ The IOUs requested to establish memorandum account for tracking the outreach and education expenses.²⁴⁰ The Commission should ensure that all the IOUs have a clear audit-trail to allow verification of incremental costs and reasonableness. The IOUs should provide an inventory list for all rate design outreach and education efforts requested in their GRCs, RDW, as well as demand responses and energy efficiency (EE) programs during the same time frame or overlapping time frame to ensure no duplication of costs and load reduction objectives.

To evaluate the success of the IOUs' outreach efforts, ORA recommends the following performance metrics:

- The extent of customer exposure to advertising.
- Website activity: Length of time, number of pages visited, etc.
- Number of featured stories and significant mentions in news media, social-media links/followers, etc.
- Number and quality of key strategic partners that the IOUs are able to coordinate with.
- Percent of high impacted customers that IOU customer service representatives have directly contacted.²⁴¹
- Percent of escalated customer complaints received.
- Proportion of customers that are aware of the rate changes and the potential impacts on their bills.
- Increase in the number of Californians that understand the benefits of modifying their energy use and know where to go to learn more about energy and energy management options.
- The number of customers that are seeking information about programs and services from their utility and other providers.

²³⁹ Ex. ORA-101, pp. A-8, A-9.

²⁴⁰ Ex. PG&E-103, p. 23; Ex. SC E (SCE responses to Question 26-38), p.A-21; Ex. SDGE-114, p. 16.

²⁴¹ High impacted customers are non-CARE customers seeing bill increases above the higher of \$10/month or 10% and CARE customers seeing bill increases above the higher of \$5/month or 10%. This definition may be subject to change over time as monthly bills change.

- The number of consumers that have checked to see if they are on the best rate for them.²⁴²
- Proportion of customers that understand there are peak hours during the day when demand for electricity is the greatest and the cost of providing electricity is more expensive.
- Proportion of customers that have received information about new technologies that can help them manage energy use on the TOU pricing plan (ex. programmable thermostats).
- Proportion of customers that understand that, by taking action during the summer on-peak period, they can help reduce overall system costs and constraints in supplying energy (e.g. reduce the need to build or maintain rarely used power plants, reduce the risk of power interruptions, etc.).²⁴³

These metrics are cited in Chapter 8 of ORA’s testimony. They in turn were taken from D.13-12-038 and Resolution E-4381.

XI. SCHEDULE, IMPLEMENTATION AND COORDINATION OF RATE CHANGES, 2015-2018

ORA recommends that the Commission not set rate structures for 2018 now; it is too far in advance. While this proceeding should establish an ideal “end state,” and guidance towards reaching that end state, the precise structure and rates for the next few years should be determined in the appropriate rate design proceedings. These would be Phase 2 of the General Rate Cases and the Rate Design Window proceedings. In these proceedings, the parties would have an adequate opportunity to determine rate impacts and any other rate design issues based on the latest revenue requirement, utility operations, and other market considerations.

In this rulemaking proceeding, the Commission can and should set rates for 2015. For the subsequent years, the Commission can decide whether the IOUs should eventually move to three tiers or two tiers. The Commission should direct the IOUs to consolidate rate changes and allow them no more than twice per year unless IOUs present

²⁴² D.13-12-038 at pp. 68–71.

²⁴³ Resolution E-4381, January 27, 2011, pp. 14-17.

extraordinary circumstances that call for an urgent additional changes. This approach would improve regulatory efficiency, reduce IOUs' outreach and educational needs, and minimize customer confusion.

As a result of this proceeding, the Commission should make its policy preference clear, and adopt ORA's recommendations to move forward on a reasonable path towards a two tier structure depending on overall revenue requirement changes, with the goal of introducing default TOU in 2018.

XII. MISCELLANEOUS ISSUES

A. GHG Allowance

As the restrictions on the lower tier rates are removed, the cost of carbon under the cap-and-trade program should be reflected in the prices faced by all end-use consumers and are transparent to those ratepayers.²⁴⁴ ORA supports recovering GHG costs using an equal cents per kilowatt hour adder that would be applied to the rates for all tiers or TOU periods. This adder on tier 1 and tier 2 rates should be considered as part of the rate increases that ORA is proposing with rate reform in this OIR rather than being considered as a separate increase to these rates. In other words, the GHG adder should be factored in the tier 1 caps discussed previously. For example, ORA proposes that the cap for PG&E's tier 1 rate be RAR plus 3%. This cap can be refined in each IOU's rate design cases.

B. GHG Impacts from TOU Load Shifting

1. ORA's Position on GHG Impacts

ORA maintains that a properly developed TOU rate design in California could reduce Green House Gas ("GHG") emissions slightly and result in load shifts that will reduce annual production costs. Capacity costs will also decline via lower peak period capacity requirements.²⁴⁵ ORA's consultants determined the GHG emission reduction effect using the Plexos production cost modeling tool with specified load shift

²⁴⁴ D.12-12-033 pg. 47, "The guiding principle from this decision is a desire to maintain the carbon price in rates and ensure that the price of goods and services reflects the full cost of carbon in order to send the clearest signal to ratepayers to make the most efficient economic decisions."

²⁴⁵ Ex. ORA-102, p. 4.

assumptions. They ran load-shifting cases for the months of January, April, July and November of 2021 on the interconnected Western Electricity Coordinating Council (WECC) electric power system, including the California region. Three different load-shifting cases were run for the month of July 2021 and one for each of the remaining months.

The “baseline” used for the modeling comprised of currently forecasted hourly patterns of consumption for each of the four months modeled. In the six load-shifted scenarios (one for each of January, April and November, and three different versions for July), hourly patterns of consumption were changed to reflect load profile shifts that could be produced by California default residential TOU rates. The consultants describe the specific load profile modeling changes as follows:

We used a rough estimate of a percentage change in peak load during peak load hours (i.e., lower peak load) in each of those four periods [the four months] in order to establish alternative load profiles. We used PG&E’s bill impact analysis tool in a limited manner to help determine, for modeling purposes, a rough estimate of percentage change in demand during peak periods; but we offer no observation or testimony on the robustness of the model itself. We limit its use to estimating a “mid-case” peak period load shift percentage to apply to estimated residential customer peak period load. We also estimate a “high-case” peak period load shift for July only, by doubling the peak-period load-shift value we obtained for the mid-case. We held total end use load (GWh) constant over each month, reallocating peak-period shifted load to non-peak periods, a simplification (and perhaps, a conservatism) we used in order to focus on the load shift effects, rather than conservation (or load building) effects that might be considered to also occur under TOU rate design policies.²⁴⁶

ORA’s modeling effort was conservative in that it did not examine the potential of TOU rate design to increase conservation or energy savings. This is done by holding overall end use energy constant, assuming energy conservation would have further

²⁴⁶ Ex. ORA-102, pp. 4-5. Further detail on the methodology used to develop the model was provided in Ex. ORA-102, pp. 8- 23, including numerous graphs.

reduced the GHG emissions in the modeling result. As the consultants noted, “[t]o the extent load is saved, rather than shifted, the GHG emissions will be lower than what we have found in this modeling exercise.”²⁴⁷ Indeed Energy Division Staff Proposal acknowledged that implementation of TOU rates would likely have a conservation effect – i.e, reduction in load consumption.²⁴⁸

ORA’s production cost modeling results showed GHG emissions reductions in California and WECC-wide, for three of the four months modeled for 2021. The modeling for the four months (January, April, July, and November) combined shows a net reduction in WECC-wide GHG emissions. The largest reductions were seen in July. However, the relative magnitude of the GHG emissions reduction was small, especially on the interconnected WECC electric power system. WECC-wide GHG emissions declined by less than one-tenth of one percent, while California region GHG emissions declined by more than one-tenth of one percent. Nevertheless, the modeling results clearly show WECC-wide GHG emissions changes in future years resulting from TOU rate design policy changes for residential customers.²⁴⁹

Generally, GHG emission increases (in the load-shift cases, relative to the base case) in certain WECC regions – especially PacifiCorp, Canada, and the Southwest – are more than offset by GHG emission declines in California, the Northwest, and Colorado in the load-shift cases over the combined four-month period.²⁵⁰ While some of these other WECC regions include a greater percentage of coal resources than California and other WECC regions (and thus their supply fleet exhibits higher CO₂ emission intensities),²⁵¹ on net the shifted patterns of load in the California IOU territories leads to a net decline in modeled GHG emissions, WECC-wide.

²⁴⁷ Ex. ORA-102, pp. 4-5, footnote 5.

²⁴⁸ See Energy Division Staff Proposal, pp. 29-31.

²⁴⁹ Ex. ORA-102, p. 6.

²⁵⁰ Ex. ORA-102, Table 8, p. 21.

²⁵¹ Ex. ORA-102, Table 9, p. 22.

The results of the modeling indicate that generally CO₂ emissions declines that are associated with TOU load shifts (as modeled) are small, but detectable in the modeling. Since only one variable was changed in the model, the results do provide a clear sense of the direction of the emission change, even though the magnitude is small. The regional variation in emission change indicates that net increases in generation in higher-emitting regions do occur, but generally are more than offset by emissions declines in the other WECC regions, especially the California regions. ... Increases in CO₂ are seen in the Southwest, the Pacificorp regions, Colorado, and Canada. Decreases are seen in the California and Northwest regions. ... the four regions showing an increase in emissions exhibit relatively higher CO₂-emitting resources on average, generally reflecting a greater percentage of coal resources used in those regions compared to the resource mix in California and the Pacific Northwest.²⁵²

2. TURN'S Dissent

The Utility Reform Network's (TURN) witness, Kevin Woodruff, is adamant that “[t]here is neither a strong nor consistent relationship between incremental CO₂ emissions in the Western United States and electric loads in California.”²⁵³ Thus, TURN concludes that “generally, this load-emissions link is so weak and inconsistent that the Commission should not assume it can reliably contribute to CO₂ emissions reductions by encouraging or requiring the widespread adoption of TOU rates.”²⁵⁴ However, a closer analysis of Mr. Woodruff's basis for this position shows it that it is based on “conviction” and “no evidence”. TURN did not estimate GHG emissions effects using a production cost model.

TURN attempts to dispute ORA's modeling results by presenting a metric in Figure 1 of its surrebuttal testimony that suggests that ORA's data erroneously showed “wildly fluctuating hourly emissions rates.” But the values TURN plotted and presented in Figure 1 are *not* hourly CO₂ emission rates from ORA's analysis. Rather, they are metrics

²⁵² Ex. ORA-102, pp. 24-25.

²⁵³ Ex. TURN – 204, p. 2:25-26.

²⁵⁴ Ex. TURN – 204, p. 3:3-5.

created by TURN that compare emissions *between* scenarios.²⁵⁵ Thus, they are not indicative of hourly emission rates for any single given scenario and they should not be compared to a system’s marginal emission rate (that is usually determined by the characteristics of a gas-fired unit or units on the margin) that generally does not fluctuate in the manner seen in TURN’s Figure 1. The metric plotted compares hourly emissions across two different scenarios that have different load shapes. Consequently, the different load shapes result in different unit commitments and different hourly outputs across the WECC, giving rise to the relatively volatile pattern seen in TURN’s Figure 1.

In essence, the pattern in TURN’s metric is not an emission rate; it is a mathematical metric defined by TURN and it does not imply that ORA’s modeling results are instable or implausible. TURN computed its own definition of hourly “incremental emissions” from the ORA results and compared this metric to a similar metric it computed from CAISO and PG&E studies. Those studies, unlike the Synapse analysis, did not estimate GHG emissions reduction from TOU-induced load shifts.

TURN also conceded that it did not have the resources or the time to perform its own production cost modeling despite the fact that the studies it relied upon do not focus on CO2 emissions.

Q. [TURN] Why did you not attempt to conduct your own production cost model studies of CO2 emissions rates or perform greater validation of the studies you discuss herein?

A. [Woodruff] Performing production cost studies is an extremely time-intensive process. I chose instead to use studies performed by other parties that have the capabilities and resources.

Validating production cost studies or analyzing the “whys” of their results may be less time-intensive, but still requires considerable effort. Further, such efforts require getting detailed data from third parties – assuming that such parties even saved all pertinent data.²⁵⁶

²⁵⁵ Ex. TURN-204, p. 19, 17-20.

²⁵⁶ Ex. TURN - 102, p. 22:9 - 16.

TURN's own surrebuttal testimony acknowledges that the Synapse analysis "is arguably more comprehensive than my [TURN's] approach", and acknowledges that TURN's approach "did not estimate the impact of specific changes in load shape". Synapse's study did estimate the impact of specific changes in load shape. Nevertheless, TURN's assertions are founded on a comparison between Synapse's more comprehensive analysis, and TURN's use of studies that were not even addressing load shape shifts.

XIII. SAFETY CONCERNS

Any rate redesign will have a negative impact on some classes of customers. ORA is concerned about low-income, specifically low-usage customers. The utility proposals include fixed charges for CARE, FERA and Medical Baseline customers. These fixed charges will be disadvantageous to the low-usage customers in these rate classes. The Low-Income Needs Assessment Report of December 2013 identifies 43% of low income customers as having moderate or high energy insecurity.²⁵⁷ This means that their constrained budgets require them to choose between paying for electricity, groceries, and medicines. They are also more likely to receive disconnection notices or actually be disconnected. The possibility of less affluent CARE and FERA customers, or less healthy Medical Baseline customers, foregoing heat, cooling, medicine or food raises major concerns. Customers that are most vulnerable will be pushed towards more precarious conditions and difficult choices. ORA urges the Commission to seriously consider safety when it reviews policy proposals for this proceeding.

XIV. CONCLUSION

For all of the reasons discussed above, ORA requests that the Commission adopt its recommendations in this proceeding.

²⁵⁷ Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs," Evergreen Economics, December 16, 2013, Section 5.5.1. Cited in Ex. ORA-101, p. A-18.

Respectfully submitted,

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