PREPARED TESTIMONY OF DAVID CROYLE

Regarding San Diego Gas and Electric's

2014 Phase 2 Proposal for Interim Rate Relief

On Behalf of the Utility Consumers' Action Network (UCAN)

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PREPARED TESTIMONY OF DAVID R CROYLE

ON BEHALF OF THE UTILITY CONSUMER ACTION NETWORK

Wednesday, March 5, 2014

PLEASE STATE YOUR NAME AND QUALIFICATIONS.

My name is David R. Croyle. I am a professional economist in San Diego, CA with more than 30 years of experience in the energy utility industry as an analyst, manager, consultant and expert witness. I am currently representing the Utility Consumers Action Network (UCAN) in this OIR Phase 2 proceeding. Educated with an M.A. in Economics and a Ph.D. Candidacy in Agricultural and Resource Economics from the University of Maryland, where I specialized in energy, natural resource and environmental economics, I began my career as a consultant in Washington, DC, working for Planning Resource Corporation and then Booz, Allen and Hamilton, Inc. Soon after joining the Booz Allen utility practice, whose clients were primarily IOUs and rural utility coops, I acquired a range of expertise in solar energy, conservation, load management, integrated resource planning and utility forecasting and planning. I also authored or co-authored a few publications for the Electric Power Research Institute (EPRI) on adapting national industrial forecasting models to local utility service areas and new technology penetration methodologies in the electricity sector.

After Booz Allen, I joined Georgia Power Company, where I produced a marginal cost of service study and over time used these methods to conduct technology-based marketing program evaluations based on cost-benefit analyses. In addition, I often contributed to rate design projects because of my marginal cost background and would introduce market pricing into the mix. Eventually, both the Economic Evaluation and the Rate Design sections were reorganized and placed together under my leadership as Pricing and Economic Analysis Manager. In that capacity, we bridged marginal cost and market pricing principles where feasible, attempting to introduce market principles into our rate designs.

That led me to California, where I was introduced to a unique group of professionals in Los Angeles known as Venture Associates, at the time a joint venture with Arthur Andersen that had its own specialized practice of working with energy utilities and well as city and county governments. Venture Associates worked to instill a "market discipline" into what operated previously as large bureaucratic organizations to help them operate more like competitive business enterprises. Among other things, I developed a marginal cost-based methodology for costing utility products and services and authored the first edition of Activity-Based Costing for Electric Utilities for the Electric Power Research Institute. For several utility and other clients, I also demonstrated techniques for transfer pricing services between departments based on market pricing instead of cost-plus pricing. Market-based transfer pricing improves efficiency and paves the way for economic decisions on whether or not it is cost effective to outsource.

The opportunity to participate in deregulation of generation in California led me to join San Diego Gas and Electric in the mid 1990's. With a strong background in marginal costing, market pricing, costing of utility products and services and utility pricing and rate design, including tiered rates, time-of-use, real-time pricing, interruptible rates and other rate structures from my Georgia Power experience, I became involved in several aspects of deregulation, including the design of the methodology for calculating "revenue cycle credits" based on Long Run Avoided Costs (LRAC) which the Commission adopted. I held many positions at SDG&E in Regulatory Affairs and in Marketing and at the Sempra Corporate Center in Regulatory Affairs. These positions built upon decades of relevant utility and consulting experience that focused on pricing, costing, ratemaking, and a range of regulatory issues, marketing and "green" programs.

In 2006 I retired from SDG&E and have been doing private consulting work for the Utility Consumers' Action Network, UCAN. While working for UCAN I successfully added detail to their application through expert testimony on SDG&E's Solar Energy Plan (SEP) in 2008-2009. I also authored testimony for UCAN's presentation on the last Sempra GRC decided in 2013, as well as consulted on recent cases, one of which involved costing issues on an SDG&E settlement and renegotiated PPA's.

PLEASE STATE YOUR TESTIMONY

What is the Purpose of Your Testimony

To define the specifications of an interim residential rate design for 2014 following the parameters of the Assigned Commissioner's Ruling (ACR Ruling) and AB 327.

Background on Phase 2 issues

The Utility Consumer Action Network (UCAN) is taking a long-term approach in this Residential Rate Reform proceeding to the redesign of the tiered residential DR rate. Whether ultimately designed as a 2-tier or 3-tier rate and regardless of whether the price differentials among the tiers are large (steep) or small (flat), the ultimate goal of the residential DR rate should be to support the default TOU rate. In other words, the tiered opt-out rate should not be designed to allow customers to escape sound price signals and make inefficient energy decisions. The well-designed DR rate should accomplish objectives that are consistent or compatible with the goals of the default TOU rate. The TOU and DR rates working together should yield a smaller, more efficient and lower cost utility system that benefits customers, the utility and the environment. Many crucial decisions will have to be made in Phase 1 to accomplish this important goal.

In Phase 2, SDG&E and other parties seek to take an interim step. Going forward, parties must keep in mind that if the ultimate goal of this residential DR rate is to be an opt-out alternative to the default TOU, it cannot undermine the TOU rate but be designed to strengthen the TOU default strategy if the Commission is to achieve the objectives sought in this OIR.

AB 327 opens the door to changing the way residential energy utility rates are priced in California by ending certain constraints that have been in place for over a decade and the Residential Rate OIR creates an opportunity for parties to present their diverse views on the most important principles that should drive the evolution of the residential rates between 2014 and 2018. Regarding rate design principles, parties differ in the importance of cost causation, energy efficiency, conservation, cross subsidies, marginal costs, fixed versus volumetric costs, time-of-use (TOU) versus tiered rate structures and a host of other ratemaking principles.

The Difficulty in Designing an Interim Residential DR Rate is a Multi-Faceted Challenge

The Energy Division's Staff Proposal for Residential Rate Reform in Compliance with R.12-06-013 and Assembly Bill 327, dated January 3, 2014, offered their perspective and shared the positions of others, recognizing that parties may have various views and encouraged debate throughout this proceeding. On page 12-13 of the Staff Proposal, the Energy Division provides an excellent explanation of how the TOU default rate produces superior benefits compared to the tiered rate structure to the utility, the customer and the environment through more cost effective and energy efficient decisions by both the utility and the customer which results in a smaller, more energy efficient system, more efficient use and lower costs to the customer.

"Staff supports TOU pricing for the same reason the Commission articulated in D.08-07-045. Staff recommends the cost-based TOU end state because TOU rates provide customers with clear price signals that will enable them to reduce their bills by changing their consumption behavior. Staff believes TOU rates will enable utilities to defer costly generation and system upgrades, resulting in reductions in electric system costs, which in turn benefit consumers by reducing or minimizing rate increases. In addition, compared with current tiered rates, staff believes that TOU rates better align with state climate policy by reducing reliance on older generation assets during peak hours, which will lower greenhouse gas (GHG) emissions. Finally, well-designed TOU rate structures will be easier for customers to understand, and they will give customers the ability to control their bills on a daily or even hourly basis by providing information needed to determine when and how to most efficiently use energy in their homes." (Staff Proposal, pp. 12-13)

UCAN supports the ultimate goal of a default TOU rate for the residential class but also sees a role for a TOU "opt-out" tiered residential rate under certain structural and pricing conditions. SDG&E's proposal is similar to what UCAN recommends but only in the respect that the utility too wishes the default TOU rate as the 2018 as the end state and accepts the tiered DR rate as the opt-out alternative. However, UCAN believes SDG&E is attempting to move too quickly in this interim rate design toward a 2-tier DR rate by placing too much of a burden on those small customers in Tier 1. We will examine the sensitivity of their assumptions and also examine the February 14 data request of ORA to show what a more balanced approach can yield in terms of a reasonable interim rate.

Overall, the OIR is comprised of two phases. Phase 1 will consist of a more detailed debate on the overall pathway beginning in 2014 and end state terminating in 2018 regarding what rate structure for the residential class should be the default rate structure and what rate structure should be available as an opt-out alternative. Phase 1 will also address more details regarding the specifics of those rate structures. Phase 2, and the purpose of this testimony is much more limited in scope: to define the specifications of an interim residential rate design for 2014 following the parameters of the Assigned Commissioner's Ruling ("AC Ruling") and AB 327.

Specifically, Phase 2 of the OIR offers the utilities the *option* of designing a *revenue neutral* Residential DR rate that begins the process of "tilting" or flattening the currently 4-tier rate towards a more cost-based DR rate by 2018. The AC Ruling provides certain guidelines:

- First, the initial revenue neutral redesign or "tilt"(in this case, a flattening of the residential DR rate in order to correct for a decade of under-recovery of costs in the lower two tiers [Tiers 1 and 2] and also a corresponding over-recovery of costs in the upper two tiers [Tiers 3 and 4]). This initial revenue neutral redesign was offered as optional. SDG&E chose to exercise this option as we will explain below.

- Second, any pending rate increases in 2014 were required to be allocated with a higher proportion allocated to the lower tiers (Tiers 1 and 2) than the upper tiers (Tiers 3 and 4) to correct for decade of misallocation of costs. The combination of both the initial tilt and the asymmetric allocation will tend to flatten the DR rate. But it will also tend to increase bills to customers in the lower more than the upper tiers.

To add to the complexity of the interim rate design, the guidelines require that bill impacts to customers must be "gradual" and "avoid rate shock," a challenge that becomes more difficult when pending increases in any single year are expected to be exceptionally large. This appears to be the case for SDG&E in 2014. With SDG&E's decision to tilt the interim rate on a revenue neutral basis using only Tier 1 and apply a 17.2 percent System Average Rate (SAR) increase to the first two tiers when the class rate increases was 10 percent, SDG&E pushed an amount to Tier 1 that resulted in substantial bill impacts to the lower tier customers.

Under these pending rate circumstances, UCAN would have recommended no initial revenue neutral rate tilt for the residential rate in 2014 since pending rate increases were expected to be as significant as SDG&E data suggests. But SDGE had another concern about the potential increase in the Tier 4 price causing them to increase the Tier 1 price and lower the Tier 4 price in this initial revenue neutral rate redesign: to keep the Tier 4 price under 40 cents.

Because of this 40 cent barrier on Tier 4 that SDG&E did not want to surpass, their approach to the revenue neutral tilt was to raise the Tier 1 price by 1 cent and reduce the gap between the Tier 3 and Tier 4 price from 2 cents to 1 cent, adjusting that higher-priced pair downward in tandem to make the design revenue neutral. This resulted in an initial flattening of the DR rate with no net increase in revenues.

The pending 2014 rate increase, then, was added on a System Average Rate (SAR=17.2 percent) basis (using February 2014 rates as current rates) across the lower two tiers *equally* and then allowing the upper two tiers to pick up the residual to meet the proposed revenue requirement target so that the class average increase of 10 percent was satisfied.

The CARE rate, on the other hand, received a 17.2 percent increase across the board in each of the four tiers. In the case of CARE, SDG&E has not re-designed, or tilted/flattened the CARE component so each tier of the CARE rate is increased by the same percentage. By this design, the lower two tiers receive a slightly higher discount on proposed compared to current rates while the upper two tiers receive a lower discount. The net result across all tiers is a trend of the CARE discount overall toward 35 percent compare to proposed non-CARE rates.

SDG&E's Artificial 40 Cent Barrier on Tier 4

The rational for this overall approach to the non-CARE residential rate was SDGE's desire to keep the upper tier price below the 40 cents per kWh threshold by tilting the rate initially and subsequently applying the SAR to the first two tiers. By so doing, Tiers 3 and 4 start at a lower base price prior to adding the residual 2014 pending rate increases. This makes it easier to

keep the Tier 4 rate below 40 cents. But the cost is clearly a higher Tier 1 price than would otherwise be the case had the utility elected not to opt for the revenue neutral redesign.

As a rule of thumb, absent a proven need to maintain a 40 cent cap on the Tier 4 price, UCAN would recommend not performing a revenue neutral tilt/flattening when there are substantial pending rate increases in a given year just to avoid a Tier 4 price of more than 40 cents per kilowatt hour. In Phase 2, given the AC Ruling requirement to allocate more of the revenues to the lower tiers *and* to keep the increase gradual, doing both in combination results in substantial and potentially excessive bill impacts for small customers. What SDG&E would give up is the initial lowering of the Tier 3 and 4 prices. But as we have shown…as the bill impacts show…that comes with a cost. SDG&E could have mitigated the impact on these Tier 1 customers by allocating fewer revenues to Tier 1 and instead allocating revenues to Tier 2. This would not close the gap between Tier 1 and 2 as SDG&E proposed but simply put, SDG&E tried to accomplish too much with this interim rate design in a single year when pending increases were substantial and the 40 cent barrier was something SDG&E chose not to breach.

The 40 cent Tier 4 limitation that SDGE imposed is worth considering in the context of the long-term flattening of the rate towards a more cost-based residential DR rate by 2018. Over the 2014-2018 period, small residential customers falling in Tiers 1 and 2 will see larger increases as a percentage relative to large customers in Tiers 3 and 4 as the rate flattens.

UCAN'S ANALYSIS OF RATE DESIGNS FROM SDG&E, UCAN AND ORA

SDG&E's Revenue Neutral and Pending Rate Increase Designs

SDG&E's interim DR rate designs are shown below for the summer season for two cases: (1) the revenue neutral DR rate redesign and (2) the revenue neutral rate redesign PLUS the remaining pending rate increases for 2014. Since SDG&E used the February 2014 date as the current rate prior to any pending rate increase, the rate increases and assumed System Average Rate (SAR) and Class Average Rate (CAR) used in the analyses are for the remainder of the year and not for

the 2014 calendar year as a whole. If SDG&E had used rates in effect on January 1, 2014, the SAR and CAR would have been higher as would the impact on customers.

TABLE A: SDG&E's Proposed Revenue Neutral DR Rate Redesign

With and Without Pending Rate Increases Added Post-2014

Summer Rates	CURRENT RATES	PROPOSED RATES	PERCENT CHANGE
No Pending Increase (See C. Fang, CF-26)	**February 2014 Rates**	**Revenue Neutral DR Rate Redesign**	
Tier 1	15.4	16.4	6.5%
Tier 2	17.8	17.8	0.0%
Tier 3	34.9	34.0	(2.5%)
Tier 4	36.9	35.0	(5.1%)
w/Pending Increase (See C. Fang, CF-26)	**February 2014 Rates**	**Mid-2014 Pending SDG&E Rate Increase**	
Tier 1	15.4	19.1	24.0%
Tier 2	17.8	20.8	16.9%
Tier 3	34.9	35.4	1.4%
Tier 4	36.9	36.4	(1.3%)

As the table shows, the initial revenue neutral tilt/flattening results in a 6.5 percent increase to Tier 1 and no increase to Tier 2 and a slight decrease to Tiers 3 and 4 when compared to current February 2014 rates. When pending increases are added to proposed rates, Tier 1 rate increase by 24.0 percent as a result of the redesign and revenue increase to the lower tiers. Note that current rates assume the same current February 2014 rates in this case. That is, the pending increase comparison table provided by SDG&E in Table CF-8 at page CF-26 compares pending increases in Mid-2014 to current February 2014 rates in both the revenue neutral redesign (top) and the pending increase (bottom) tables. The bottom table is the accumulation of both calculations.

SDG&E's Revenue Neutral Rate Redesign

SDG&E limited its revenue neutral increase to Tier 1, essentially reducing the gap between Tier 1 and Tier 2. There was no increase applied to Tier 2. SDG&E also reduced the gap between

Tier 3 and Tier 4 from 2 cents to 1 cents. Since SDG&E's goal is to move to a 2-tier DR rate by 2018, this is not hard to understand. But the gap spacing between Tiers 1 and 2 and between Tiers 3 and 4 are far less on current rates than the gap spacing between Tiers 2 and 3 which suggests SDG&E is closer to a 2-tier path than a 3-tier DR rate path. If closing the Tier 1 and 2 gap contributes to the lower tier customer impacts (by adding the 1 cent only to Tier 1) then perhaps 2014 is not the time to close that already narrow gap further. This is especially true when 2014 pending increases will substantially increase bills to lower tier customers given the AC guidelines.

In the current design of the 4-tier DR rate, the gaps between Tiers 1 and 2 and between Tiers 3 and 4 are substantially less than the gap between Tiers 2 and 3, and spreading the revenues over the four tiers to achieve any meaningful differentiation is difficult. If the tier prices were more evenly spread, it would be much more possible to mitigate the increases in customer bill impacts by spreading the revenues more equitably across the tiers, giving more revenues to Tiers 1 and 2 than Tiers 3 and 4. But given the Commission's directives the degrees of freedom in this Phase 2 rate design are clearly somewhat limited.

Weighing the limited alternatives, UCAN believes more weight must be given to keep the impact on small customers as gradual as possible, especially when the larger customers are receiving the lowest increases each year. At a minimum, UCAN would allocate more revenues to Tier 2 and take away some of the burden from Tier 1 customers. This might not close the already narrow gaps between the lower tiers but SDG&E cannot do everything it desired in a single year.

In this context, the 40 cent threshold pales by comparison even though it has been raised as a critical issue by SDG&E. Given the choice between breaching the artificial 40 cent barrier imposed by SDG&E and maintaining more modest increases to customers in Tiers 1 and 2, UCAN advocates breaching the 40 cent barrier to protect small customers in 2014. Simply put, the rate increases in 2014, including those already in place by February 2014, make 2014 a year

of substantial increases and not a year for tilting/flattening the residential DR rate any more than necessary -- even if the Tier 4 price exceeds 40 cents.

SDG&E Applied the System Average Rate Increase to the First Two Tiers

In addition to adding 1 cent to Tier 1 in the revenue neutral rate re-design, SDGE also chose to use the SAR increase for the pending 2014 increase applied to the upper tiers of the residential DR rate (17.2%). The residential Class Average Rate (CAR) was considerably less (10%). By using 17.2 percent for Tiers 1 and 2, the residual calculation for the overall rate meant that Tiers 3 and 4 had to recover substantially less than 10 percent to achieve 10 percent revenue increase overall for the rate. Applying the 10 percent class average rate increase to Tiers 1 and 2 would not satisfy the AC Ruling criteria of allocating more to the lower tiers than the upper tiers. Something more than 10 percent had to be allocated to the lower tiers (Tiers 1 and 2) and something less than 10 percent had to be allocated to the upper tiers (Tiers 3 and 4). SDG&E again chose a particularly large percentage to ensure that the Tier 3 and 4 prices remained below 40 cents. UCAN performed a sensitivity analysis by changing the 1 cent adder to a ½ cent adder and the System to the Class percentage options and show the results below. The purpose is to reveal how tier prices and bill impacts are affected by these changes in key parameters.

UCAN's Sensitivity Analysis of the SDG&E Methodology

For comparison purposes UCAN asked SDGE to run two sensitivity scenarios: (1) adding 1/2 cent to Tier 1 but applying the 17.2 percent System Average Rate (SAR) increase to Tiers 1 and 2 and adjusting the lower two tiers in tandem residually, and (2) adding one cent to Tier 1, applying the 10 percent Class Average Rate (CAR) increase to the first two tiers and adjusting the lower two tiers in tandem residually. Using the 10 percent class average but retaining the 1 cent adder in Tier 1 essentially allocates more to lower tiers. To be clear, these are not UCAN rate proposals, but merely sensitivity analyses that indicate the sensitivity of cost drivers in SDG&E's proposal.

UCAN retained the 1 cent gap between Tier 3 and 4 (reduced from 2 cents in current rates) and did not test the sensitivity of allocating some revenues to Tier 2. However, ORA did just that and UCAN will discuss their analysis later in this testimony. For now, we test only the two key parameters that appear to assign more revenues to Tier 1 and 2.

TABLE B: UCAN Scenario 1

½ cent Adder to Tier 1 and 17.2 Percent Increase to Tiers 1 and 2

	CURRENT RATES	PROPOSED RATES	PERCENT CHANGE
NON-CARE	**W/ Pending Increase W/O Rate Redesign**	**W/ Pending Increase W/ Rate Redesign**	
Summer	**February 2014 Rates**		
Tier 1	15.4	18.6	20.8%
Tier 2	17.8	20.8	16.9%
Tier 3	42.0	35.5	(15.5%)
Tier 4	44.0	37.5	(14.8%)
Winter			
Tier 1	15.4	18.6	20.8%
Tier 2	17.8	20.8	16.9%
Tier 3	40.0	33.3	(16.5%)
Tier 4	42.0	35.3	(16.0%)
CARE	**CURRENT RATES**	**PROPOSED RATES**	**PERCENT CHANGE**
Summer	**February 2014 Rates**		
Tier 1	10.3	12.1	17.5%
Tier 2	12.0	14.1	17.5%
Tier 3	17.6	20.6	17.0%
Tier 4	17.6	20.6	17.0%
Winter			
Tier 1	10.3	12.1	17.5%
Tier 2	12.0	14.1	17.5%
Tier 3	16.4	19.3	17.7%
Tier 4	16.4	19.3	17.7%

TABLE C: Scenario 2

1 cent Adder to Tier 1 and 10 Percent Increase to Tiers 1 and 2

	CURRENT RATES	PROPOSED RATES	PERCENT CHANGE
NON-CARE	**W/ Pending Increase**	**W/ Pending Increase**	

	W/O Rate Redesign	W/ Rate Redesign	
Summer	**February 2014 Rates**		
Tier 1	15.4	18.0	16.9%
Tier 2	17.8	19.7	10.7%
Tier 3	42.0	37.0	(11.9%)
Tier 4	44.0	39.0	(11.4%)
Winter	**CURRENT RATES**	**PROPOSED RATES**	**PERCENT CHANGE**
Tier 1	15.4	18.0	16.9%
Tier 2	17.8	19.7	10.7%
Tier 3	40.0	34.9	(12.8%)
Tier 4	42.0	36.9	(12.1%)
CARE			
Summer			
Tier 1	10.3	11.4	10.7%
Tier 2	12.0	13.3	10.8%
Tier 3	17.6	19.4	10.7%
Tier 4	17.6	19.4	10.2%
Winter			
Tier 1	10.3	11.4	10.7%
Tier 2	12.0	13.3	10.8%
Tier 3	16.4	18.2	11.0%
Tier 4	16.4	18.2	11.0%

Both Scenarios 1 and 2 reduce the Tier 1 price from 19.1 cents to 18.6 cents and 18.0 cents, a 1.5 cent and 1.1 cent reduction, respectively. This reduces the SDG&E percent increase from 24 percent to 20.8 percent in Scenario 1 by reducing the one cent adder in Tier 1 to ½ cent and to 16.9 percent in Scenario 2 in Tier 1 by reducing the 17.2 percent SAR to the 10 percent CAR. The customer bill impacts are reduced as well as shown in the **Attachment B and C**. In both scenarios, SDGE's proposal to maintain the Tier 4 price at a level under the desired 40 cent threshold is satisfied. At Cf-16, witness Fang offers several rules of thumb for trading off the increases or decreases in prices in one tier against another or against the Tier 3 and 4 differential. For example, the Tier 3 and 4 differential of 2 cents in current rates can be reduced by 0.5 cents will result in approximately a 0.6 cent reduction in the Tier 4 rate. So by reducing the Tier 4 rate differential by one cent, SDG&E was able to reduce the reduce the Tier 4 rate by just over one cent. Plus once the differential is established, each one cent increase in the Tier 1

rate results in a 1.5 cent reduction in the Tier 3 and 4 tandem pair. Using these guidelines it is possible to reduce the Tier 1 rate and push up the Tier 4 price closer to 40 cents and mitigate lower Tier bill impacts. Furthermore, a two cent increase in the Tier 2 rate only decreases the Tier 3 and 4 pair by only 0.5 cents. Again, using this relationship, it is possible to assign more revenues to Tier 2 without adversely impacting the Tier 4 price. These concepts on CF-15-16 can prove useful in a conceptual redesign of the DR rate combined with what UCAN learned by conducting its sensitivity analysis and reviewing the ORA data request in the next section.

UCAN Review of the ORA Data Request DR 005-02142014

TABLE D: ORA Data Request Review

10 Percent CAR plus Additional Revenue Allocated to Tiers 1 and 2

Summer Rates	**CURRENT RATES February 2014**	**PROPOSED RATES**	**PERCENT CHANGE**
NON-CARE	**No Pending Increase**	**W/ Pending Increase W/ Rate Redesign**	
Tier 1	15.4	17.8	15.6%
Tier 2	17.8	21.1	18.5%
Tier 3	34.9	36.7	5.2%
Tier 4	36.9	38.7	4.9%
CARE	**CURRENT RATES February 2014**	**PROPOSED RATES**	**PERCENT CHANGE**
Tier 1	10.3	11.9	15.5%
Tier 2	12.0	13.9	15.8%
Tier 3	17.6	20.3	15.3%
Tier 4	17.6	20.3	15.3%

UCAN's results are not directly comparable to ORA but do offer UCAN some interesting insights that support our own analysis.[1] The specifications of ORA's Data Request, DR-005-02142014 are provided in UCAN **Attachment D**. First, by allocating less than the 17.2 percent SAR increase to Tier 1 and 2 and replacing the 1 cent adder to Tier 1 with ORA's own assumptions

[1] In UCAN's data request we asked for comparisons with February 2014 rates as current rates but received comparisons with the mid-2014 rates instead with pending rate increases added. In ORA's data request, ORA requested comparisons with the November 2013 as current rates but received comparisons with the February 2014 rates as current rates, without pending rate increases. This made a direct comparison problematic.

for each tier, the burden on Tier 1 customers is lessened. The gap between the lower tiers is not reduced but the bill impacts are mitigated.[2] Second, at least in this scenario, ORA maintained the 40 cent limit on the Tier 4 price but did not reduce the Tier 3 and Tier 4 gap from 2 cents to 1 cent. In fact, ORA maintained the 2 cent gap in the Data Request. The result was a more balanced rate design with customer bill impacts mitigated. Yet still, the 40 cent barrier remains an obstacle to satisfying the rate design objectives of gradual rate increases for the lower tier customers. What ORA's analysis reveals is that SDG&E's desire to reduce the gaps in the lower tiers and the upper tiers in 2014 while maintaining a 40 cent limit in Tier 4 is simply too restrictive in a single year if the Commission wants to mitigate customer bill impacts. Pending revenue increases in 2014 are simply too large to expect so much from the SDG&E approach without some modification to the tier allocation and tier pricing levels.

TABLE E

Comparison of Customer Bill Impacts for SDG&E, UCAN and ORA

Customer Usage Range (kWh Interval)	Cumulative % Customers by Interval	SDG&E February 2014 Inland/Coastal	UCAN Scenario #1 (17.2%/0.5 c)	UCAN Scenario #2 (10%/1 cent)	ORA DR 005 02142014
		Summer	Annual	Annual	Annual
250-300 kWh	28%	23.6% / 23.4%	18.5%	15.3%	15.2%
450-500 kWh	57%	17.0% / 13.2%	7.6%	6.1%	12.7%
700-800 kWh	82%	10.1% / 7.6%	(3.8%)	(2.8%)	9.1%
900-1000 kWh	89%	5.4% / 4.1%	(7.0%)	(5.3%)	7.9%
1000-1500 kWh	95%	2.7% / 2.0%	(9.1%)	(7.0%)	7.1%

- For SDG&E's calculations, the kWh levels are 300, 500, 750, 1000 and 1500 kWh.

Clearly, each of the UCAN and ORA adjustments mitigate bill impacts by reducing lower tier prices as shown earlier in **TABLES B, C and D**. These prices in Tier 1, for example, are reduced from 19.1 cents to 18.6 (#1) and 18.0 (#2) for UCAN and to 17.8 cents for ORA's data request. Furthermore, none of these alternatives required UCAN or ORA to breach the 40 cent barrier.

[2] For ORA's assumptions, please see ORA data Request, DR005-02142014 in UCAN's Attachment D

More detailed customer bill comparisons are available in the testimony of SDG&E witness C. Fang, Attachment C-2, and **Attachment B** (UCAN Scenario #1), **Attachment C** (UCAN Scenario #2) and **Attachment D** (ORA Data Request, DR 005-02142014) of my testimony with customer impacts for ORA included in **Attachment E**.

UCAN believes that SDG&E should rethink the 40 Cent Barrier

Cynthia Fang's testimony at CF-15 shows a relationship between the Tier 1 price and the Tier 4 price (actually the tandem Tier 3 and Tier 4 price): a one cent increase in the Tier 1 price results in a 1.5 percent decrease in the Tier 3/4 tandem price. Given that relationship, UCAN recommends pushing the Tier 3 and 4 prices upward closer to 40 cents in 2014 to lower the Tier 1 price as much as possible to keep the transition in 2014 gradual.

SDG&E has yet to justify the 40 cent barrier with economic reasons.[3] Given the AC Ruling and AB 327 directives it is more critical to have gradual increases in the lower tiers to avoid rate shock than keeping an artificial barrier of 40 cents as the maximum Tier 4 price. Since the 40 cent barrier causes excessive bill impacts to small customers, the Commission should insist that the 40 cent barrier be breached.

Marginal Costs, Market Prices and Cost Causation

In the regulated utility industry, IOUs also face a revenue requirements constraint based on fully-allocated embedded costs which deviate from marginal costs and therefore can distort marginal cost-based price signals. TOU and other time-variant rates come closest to tracking marginal costs but the best benchmark of economic efficiency is actually market prices. Monitoring the investment and operating decisions customers make as TOU and tier prices increase can be the best gauge of whether TOU and tier prices are getting excessive. This can

[3] In a meeting with UCAN on February 5, 2014 we asked the reasons for their concern about the 40 cent Tier 4 threshold. Cynthia Fang indicated that based on experience at PG&E, they believed that the 40 cent price was "scary" to customers. We asked if there were any actual economic reasons for setting the price at 40 cents, e.g., whether customer investment or operating decisions could be shown to be affected by the 40 cent Tier 4 price and no such evidence was available.

be one way for SDG&E to test over time whether the 40 cent threshold is valid today and in the future as much as the utility claims it has been in the past. SDG&E's rationale for the 40 cent barrier is insufficient grounds for violating the "gradualism" and "rate shock" parameters of the AC Ruling, especially when the rate increase to large customer are relatively low over time and a TOU default rate may be a more acceptable option by 2018 making the 40 cent issue moot. Frankly, the 40 cent threshold will likely be breached long before 2018 anyway so the current concern is really only temporary while the concern of small customers in the lower tiers is not.

Summery and Recommendations

In Phase 2, UCAN supports a wider gap between Tiers 1 and 3 and between Tiers 3 and 4. We also supports a Tier 4 price above 40 cents. We see no reason therefore that Tier 2 could not be allocated revenues as well as Tier 1 to help mitigate the customer bill impacts in Tier 1. Our main priorities in the 2014 interim rate at least are to focus on keeping the bill impacts gradual. There is much to accomplish between 2014 and 2018…to reach the 2018 end state, everything does not have to happen in the first year. Pending increases for SDG&E are simply too large to accomplish so much flattening of the rate in a single year as SDG&E has proposed. If the large pending increases means less tilt/flattening of the tiers in 2014 or breaching the 40 cent barrier in Tier 4 earlier than SDG&E may prefer, then to protect smaller customers in the lower tiers UCAN advocates for breaching SDG&E's artificial threshold. Besides, the ultimate objective will be to reduce bills to the large customers relative to smaller customers through flattening or tilting the rate to compensate for a decade of lower tier price constraint. It is clear from the customer bill impacts in all scenarios shown that large customers benefit relative to small customers. As we transition into Phase 1 and the 2015-2018 period, the rate flattening toward a more cost-based and subsidy-free residential DR rate will continue to benefit large customers despite the fact that small customers are allocated more revenues. Balancing the competing interests will play an important role in this challenge as we continue to encourage conservation, energy efficiency, peak demand reduction, GHG abatement and rate design that reflects cost causation, the absence of cross subsidies and reasonable bill impacts. But trying to bring the

tiered rates closer to the cost so quickly as SDG&E has proposed, when the rates have been out of balance for over a decade, is doing too much too soon.

DOES THAT CONCLUDE YOUR TESTIMONY?

Yes.

Attachment A:

UCAN Data Request 2

Attachment B:

Customer Bill Impacts, Scenario 1

One Cent Adder to Tier 1 Using 17.2 percent SAR

Attachment C:

Customer Bill Impacts, Scenario 2

One-Half Cent Adder to Tier 1 Using 10 percent CAR

Attachment D:

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Attachment E:

Customer Bill Impacts for ORA Data Request