Supplemental Filing of SAN DIEGO GAS & ELECTRIC COMPANY (U 902E) In Support of Responses to Questions and Related Testimony Pursuant to Phase 1 Assigned Commissioner's Ruling.

Rulemaking 12-06-013 Phase 1

PREPARED SUPPLEMENTAL TESTIMONY OF

LESLIE WILLOUGHBY

CHAPTER 2

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

MARCH 21, 2014

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I. INTRODUCTION

On February 28, 2014, SDG&E submitted testimony that included a proposal to conduct an experimental time-of-use ("TOU") pilot for its residential customers. The proposal is in support of and consistent with the California Public Utilities Commission's ("Commission" or "CPUC") ten guiding rate design principles for optimal rate design[1] and the Energy Division Staff Proposal for Residential Rate Reform ("ED Staff Proposal").[2] At that time SDG&E also stated that it would provide more information about the pilot that would include a more detailed description of the pilot, the costs associated with implementing the experimental TOU pilot, as well as a proposed timeline in its March 21, 2014 filing in this docket.

In its February 28, 2014 filing, SDG&E proposed to evaluate the on-peak load shifting effects of three different TOU rates with differing TOU period lengths and pricing structures. The information and insights gained from this pilot will be used to inform SDG&E's default TOU rate structures proposed to begin in 2018 and/or alternative TOU structures for optional rates. Additionally, the proposed optional TOU rates, requested to be available to customers beginning on January 1, 2015, are consistent with CPUC policy priorities and in compliance with Assembly Bill ("AB") 327. This supplemental testimony

[1] Administrative Law Judge's Ruling Requesting Residential Rate Design Proposals, issued on March 19, 2013 in Rulemaking ("R.") 12-06-013, Attachment A Principles of Rate Design.
[2] Staff Proposal for Residential Rate Reform in Compliance with R.12-06-013 and Assembly Bill 327, Energy Division, January 3, 2014.

will provide an overview of SDG&E's experimental TOU pilot, SDG&E costs to implement the pilot, and a timeline for the implementation and evaluation of the TOU rates to be conducted so that it can inform SDG&E's long-term TOU proposals.

II. SDG&E'S EXPERIMENTAL TOU PILOT PROPOSAL

SDG&E first introduced its proposal to conduct an experimental TOU pilot in my direct testimony submitted on February 28, 2014. As my testimony explained, SDG&E's goal is consistent with ED's in that "TOU time periods and rate design need to be carefully developed in the context of GRC's, or comparable rate setting proceedings."[3] SDG&E maintains that in order to create TOU rates that are consistent with the ten rate design principles developed in Phase 1 of this proceeding, it will be necessary to determine what the optimal TOU period lengths should be for SDG&E's TOU rates.[4] SDG&E also agrees with the ED Staff Proposal that there are questions that need to be answered prior to rolling out default TOU residential rate design to SDG&E's residential class. Some of these questions are similar to those posed in the ED's Staff Proposal. SDG&E proposes to focus on the following research questions:

1. Are there statistically significant reductions in energy use at time of SDG&E's monthly system peaks?
2. Are there statistically significant load reductions in monthly on-peak energy use?
3. Are there statically significant load increases in monthly semi-peak and off-peak energy use?
4. How do the changes in energy use differ between the three TOU rates?

[3] ED Staff Proposal, at p. 16.

[4] SDG&E has proposed to change its TOU periods for all customer classes in its Rate Design Window ("RDW") Application ("A.") 14-01-027, which was filed on January 31, 2014. This Application is currently pending before the Commission.

5. For the customers enrolled in the four hour on-peak time of use rates are there statistically significant increases in energy use during the other three hours that are part of the on-peak period of the seven-hour TOU rate?
6. Do the combined shorter TOU rate options provide more on-peak load reduction than the seven hour rate option?
7. Is there an increase in energy usage immediately after the end of the on-peak period and is the increase in energy snapback higher in the seven-hour TOU or the two four-hour TOU rates?
8. What are the opt-out percentages for the experimental TOU pilot and are there differences in those opt-out percentages between the three rates?

SDG&E's proposal focuses solely on the TOU load impacts without enabling technology, and/or dynamic rate design. The success of long-term TOU rates implemented in 2018 will be enhanced by SDG&E's ability to understand customer opt-out rates, and their challenges associated with differing summer on-peak TOU period length. SDG&E's experimental rates can provide insight on the impacts to peak hours during normal system conditions as well as peak load conditions. Consistent with SDG&E's 2015 Rate Design Window Application ("A.") 14-01-027 ("RDW"), SDG&E's proposed pilot TOU rate periods are as follows:

Table LW2-1 from SDG&E's RDW: Proposed TOU periods

Optional TOU	Weekdays	Weekends/Holidays
On-Peak - Summer	2pm - 9pm	N/A
Semi-Peak - Summer	6am - 2pm and 9pm - 12m	6am - 12m
Off-Peak - Summer	12m - 6am	12m - 6am
On-Peak - Winter	5pm - 9pm	N/A
Semi-Peak - Winter	6am - 5pm and 9pm - 12m	6am - 12m
Off-Peak - Winter	12m - 6am	12m - 6am

The two experimental TOU rates will have a shorter summer on-peak period that starts and ends four hours from the beginning of the on-peak window and four hours from the end of the on window, 2pm – 6pm and from 5pm – 9pm respectively. The off-peak periods across all three TOU rates are the same in summer as well as the winter TOU periods.

SDG&E's two proposed experimental TOU rates (A and B) for this pilot are provided in detail below. The third TOU rate for this pilot is the proposed TOU periods from SDG&E's RDW filing, as described in Table LW2-1 above.

Table LW2-2: Proposed Experimental TOU period (A)

Experimental TOU A	Weekdays	Weekends/Holidays
On-Peak - Summer	2pm - 6pm	N/A
Semi-Peak - Summer	6am - 2pm and 6pm - 12m	6am - 12m
Off-Peak - Summer	12m - 6am	12m - 6am
On-Peak - Winter	5pm - 9pm	N/A
Semi-Peak - Winter	6am - 5pm and 9pm - 12m	6am - 12m
Off-Peak - Winter	12m - 6am	12m - 6am

Table LW2-3: Proposed Experimental TOU period (B)

Experimental TOU B	Weekdays	Weekends/Holidays
On-Peak - Summer	5pm - 9pm	N/A
Semi-Peak - Summer	6am - 5pm and 9pm - 12m	6am - 12m
Off-Peak - Summer	12m - 6am	12m - 6am
On-Peak - Winter	5pm - 9pm	N/A
Semi-Peak - Winter	6am - 5pm and 9pm - 12m	6am - 12m
Off-Peak - Winter	12m - 6am	12m - 6am

A. Experimental TOU pilot eligibility

SDG&E plans to recruit from current customers on its standard tiered residential rate and California Alternate Rates for Energy ("CARE") rate schedules, Schedule DR and Schedule DR-LI, respectively. Customers on medical baseline, direct access ("DA"), net energy metering ("NEM")[5] and other TOU rates would be excluded from participating in the pilot. SDG&E plans to leverage marketing efforts with its Smart Pricing Program ("SPP") team to begin recruitment in January 2015. It should be noted that SDG&E recently requested an extension in its SPP implementation schedule from November 1, 2013 to January 1, 2015[6] due to unforeseen delays in program and rate approvals. Therefore, SDG&E requires additional time to comply with Decision ("D.") 12-12-004 and D.14-01-002. In addition to the new summer on-peak TOU rates, SDG&E proposed to change Critical Peak Pricing ("CPP") and Reduce Your Use ("RYU") event periods from 11am – 6pm to 2pm – 6pm year round.[7]

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[5] The experimental TOU rates are to inform default and optional TOU rate structures for residential customers, rates for solar customers will be developed in NEM 2.0 that will be established by 12/31/2015. As such the timeline for the experimental pilot will not support this pilot's timeframe.

[6] February 25, 2014 letter to Paul Clanon, ref: rule 16.6 request for extension of time to comply with D.12-12-004 and D.14-01-002.

[7] SDG&E has proposed to change its TOU periods for all customer classes in its RDW, which was filed on January 31, 2014. This Application is currently pending before the Commission.

Test and Learn Strategy

SDG&E proposes to leverage the TOU pilot with its SPP rollout, which is planned for January 1, 2015.[8] SPP staff can market the experimental TOU rates in the same manner it proposes to market the SPP rates. SDG&E is preparing to conduct a "Test and Learn" strategy when launching its SPP rates.

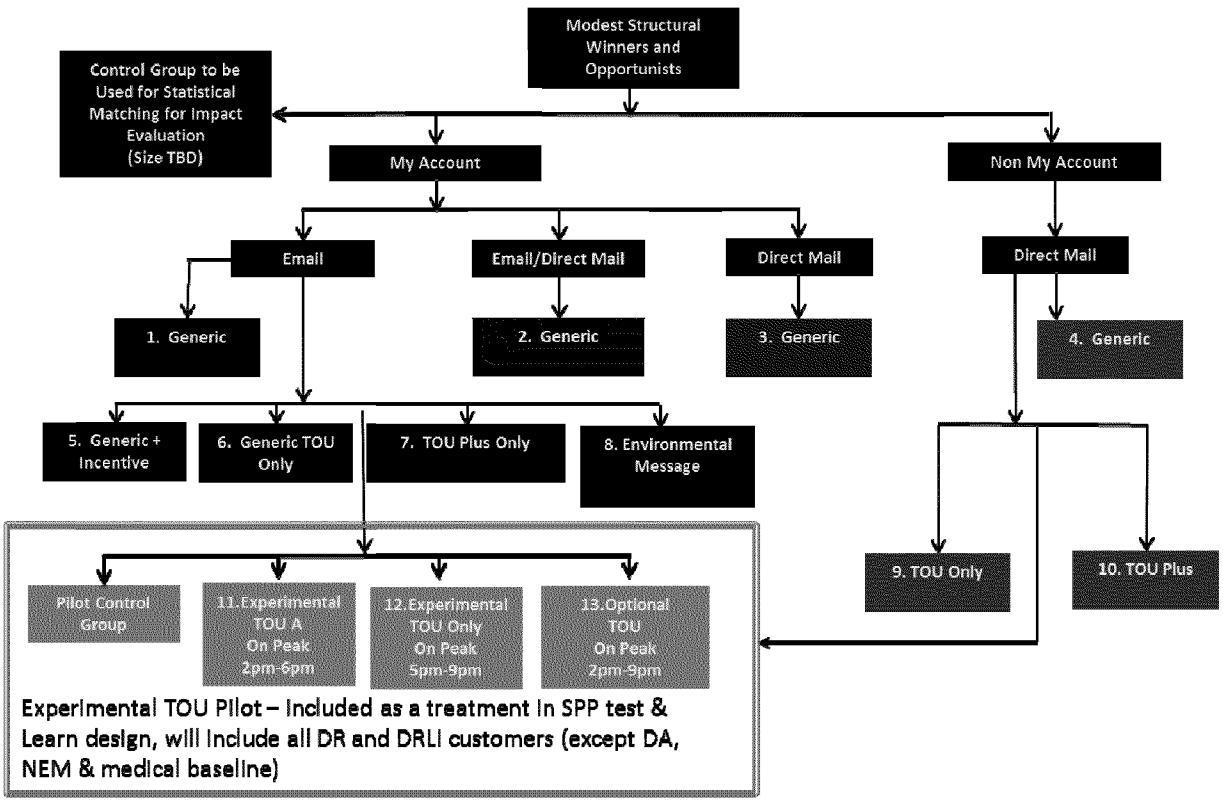
"Test and Learn" is a marketing strategy that has been used over the past 25 years by various customer-oriented companies. Tests are performed on small numbers of customers and the results of the tests are collected and analyzed based on the "goal" of the test. The initial results are then fed back into the next round of tests to see if the feedback improves the overall result. In SDG&E's case, it is testing the effectiveness of its marketing and outreach for its SPP program. From its current proposal, the primary objectives of the initial wave of tests is to determine which marketing options are working best and which customer segments have the highest acceptance rate for each SPP rate option. A detailed analysis of these issues for the initial wave will provide an early indication of whether or not the goal of enrolling a particular number of participants will be easily achieved or more difficult, and will also be used as input to deciding what the second test wave should include.[9]

SDG&E is currently working with Nexant[10] to roll out its test and learn strategy when implementing SPP. SDG&E proposes to add a "treatment" cell that would include all three of the TOU periods that SDG&E would like to test. This treatment cell would be

[8] Feb 25, 2014 letter to Paul Clanon, ref: rule 16.6 request for extension of time to comply with D.12-12-004 and D.14-01-002.
[9] SDG&E's SPP Test and Learn proposal from FSC's Steve George to Dana Golan, September 2013.
[10] Nexant has merged with FSC. Steve George worked very closely with SMUD and SDG&E is now working with Mr. George to design SDG&E's Test and Learn rollout.

added to the existing SPP test and learn framework. A separate control group would also be needed for the experimental TOU pilot. SDG&E is currently evaluating how to best construct the control group.

Figure LW2-1. SPP Test & Learn Design with Experimental TOU pilot



B. Experimental Design

SDG&E plans to utilize best practices from other recent TOU pilots. As discussed in my previous testimony, SMUD is conducting high quality SmartPricing study that has significant preliminary results for various treatment groups after the first year of its study. Consistent with SMUD's pilot, SDG&E's is considering both research strategies; Randomized Encouragement Design ("RED") and a modified Randomized Control Trial ("RCT"). The SMUD study describes both of these options:

- RED is a research strategy that selects two groups from the same population and offers the treatment to one of the groups. Although all customers in the treatment group are given the offer, it is not expected that all will accept the offer. For analysis purposes, those customers who decline the offer are still considered to be in the treatment group. As SMUD explains, "Treatment impacts are estimated initially by comparing the change in usage between the treatment and control groups before and after the treatment goes into effect. This first stage impact estimate—referred to as an intent-to-treat estimate—reflects a weighted average of those who were offered the treatment and took it and those who were offered the treatment and declined. A second stage calculation can be done to determine the impact only for those customers who accepted the treatment offer. This estimate—referred to as the treatment effect on the treated—will be unbiased by selection effects."[11]
- RCT is research strategy that solicits customers to participate in a study and then once a customer agrees to participate in the study they are randomly assigned to either the treatment group(s) or the control group. The advantage to this method is that there are no differences between the treatment and control groups other than random variation and the treatment itself.[12] One of the primary benefits of this design is that it removes self-selection bias and enables direct comparisons between the two groups. Typically the

[11] Smart Pricing Options Interim Evaluation, An interim evaluation of the pilot design, implementation, and evaluation of the Sacramento Municipal Utility District's Consumer Behavior Study, SMUD & FSC, October 23, 2013, at pp. 111-112 of the FSC part of the report.
[12] *Ibid*, at p. 111.

randomization for the control group is constructed by recruiting and delaying or recruiting and denying.[13]

In SDG&E's case, the SPP soft launch implementation will begin at the same time as the experimental pilot's implementation. SDG&E is offering the optional TOU (2pm-9pm on-Peak) rate as part of the SPP TOU rate option. This same optional TOU rate will be one of the three TOU rate options that will be studied in the experimental TOU pilot. Denying or delaying customers will effectively prevent them from going onto a TOU rate during 2015, reducing the potential number of customers that SDG&E would have on its optional TOU rate which could potentially undermine its overall recruitment goals. It is for this reason that SDG&E plans to construct a matched control group by utilizing pretreatment smart meter interval data with propensity score matching algorithms.

C. SDG&E's Pilot Design Strategy

SDG&E proposes to use the randomized treatment design portion of the RCT for its research strategy. SDG&E will recruit customers for the treatment portion of the study, and once customers volunteer to participate they will be randomly assigned to one of the three TOU options, i.e. participants will have an equal probability to be assigned in any group. One advantage to utilizing this type of recruitment design is that minimizes selection bias and enables for internally valid comparisons between the three TOU groups. SDG&E employed a similar recruiting design with its Electrical Vehicle ("EV") Pricing Study[14]. However there are significant differences between the two studies as the goal in the EV

[13] SMUD sent their marketing material out and approximately half of their customers could start on the treatment rates in 2012, and half were deferred to 2014. SMUD's interim SmartPricing Options Interim Evaluation, at p. 92.

[14] Final Evaluation for San Diego Gas & Electric's Plug-in TOU Pricing and Technology Study, Nexant Inc, Feb 20, 2014, p 1.

pricing study was to calculate elasticities and determine if there were significant pricing sensitivities for SDG&E's EV charging during the EV TOU periods. The primary goal in SDG&E's experimental TOU pilot is to assess whether there are significant differences in load impacts that are attributed to different lengths for summer on-peak periods.

As previously discussed, SDG&E intends to utilize pre-treatment data from its smart meters as well as a quasi-control group as a method for estimating load impacts for the pilot. SMUD estimated similar results when conducting a comparative analysis that calculated the load impacts two different ways. The RCT and quasi-control group were both used to calculate load impacts and SMUD received similar results with both methods.[15]

D. Sample Sizes

Sample sizes will be designed to be large enough to obtain statically valid estimates of load reduction from participants during peak times and monthly peak load conditions. Sample sizes for the experimental TOU pilot are anticipated to range from 1,500 to 3,000 per TOU group (or about 4,500 to 9,000 residential customers). SDG&E has made initial calculations for its experimental TOU pilot and they are in alignment with the sample sizes that SMUD calculated.[16] There are several considerations to be taken into account. For example, research questions that SDG&E in interested answering include: (1) the TOU reduction during its system peak period; as well as (2) the overall reduction or shift in energy on a daily basis or during the shoulder months. Required sample sizes will be different for each of those estimates.

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[15] Smart Pricing Options Interim Evaluation, An interim evaluation of the pilot design, implementation, and evaluation of the Sacramento Municipal Utility District's Consumer Behavior Study, SMUD & FSC, October 23, 2013, at p. 109.
[16] *Ibid*, at p. 14.

The table below provides SDG&E's estimated sample sizes from using SDG&E's system peak day from different months:

Table LW 2-4: Experimental TOU Pilot Estimated Sample Sizes

Estimated Sample Sizes Using Matched Control Group				
	Size per group	**Alpha**	**Power**	**Difference to detect**
August Monthly Peak day	**2,499**	**0.1**	**0.9**	**5%**
August Monthly Peak day	**1,805**	**0.1**	**0.8**	**5%**
April Monthly Peak Day	**1,524**	**0.1**	**0.9**	**5%**
April Monthly Peak Day	**1,101**	**0.1**	**0.8**	**5%**

For this estimation SDG&E used 1,000 customers from its load research residential sample. Using monthly peak day usage each customer in the group of 1,000 was matched to the closest of the other 8,000 customers in the load research sample. The mean and standard deviation of the differences between the matched pairs were calculated and used for the sample size calculation. The power function is used to obtain the minimum sample that is required to detect the desired effect (% difference to detect) on a sample size, in this case SMUD used 80% power to detect a 5% difference between the treatment and control group.[17] A power of 90% to detect a 5% difference between the treatment and control group was also calculated for comparison purposes. As seen in the table above, August 2013 had the highest standard deviation, and April 2013 had the lowest standard deviation. The alpha of 0.1 corresponds to using 90% confidence intervals. This calculation assumes a

[17] *Ibid*, at p. 14.

simple subtraction of the treatment and control group with no difference of differences and no incorporation of pre-treatment data. Using pre-treatment data should aid in reducing variation, and smaller sample sizes may be possible.

Additionally, SDG&E will need to account for customer churn as nearly 19% of its residential population moves within a year. SMUD estimated a 20% churn rate for the two year length of their pilot. SDG&E calculated a 19% churn rate for the most recent 12 month period (3/2013 – 2/2014) and just over 100,000 (42%) of those customers moved in the previous 12 months. Final sample sizes will be determined when the formal experimental TOU pilot's project plan is created.

E. Recruiting for the TOU pilot

SDG&E's SPP team will send out marketing material to eligible customers inviting them to opt into one of three TOU rates. Once customers agree to go onto an experimental TOU rate, as pilot participants, they will be randomly assigned to one of the three TOU rates described. The pilot is to target a representative group of SDG&E's residential population on Schedules DR and DR-LI.[18] The group targeted for the pilot will also include customers that may not be structural benefiters on one or more of the TOU rates that they will be randomly assigned to. SDG&E plans to send out preliminary bill impact information to these customers along with tips for shifting energy usage to the off peak and super off peak TOU periods. An incentive will be offered to customers that agree to go onto the experimental TOU pilot. The incentive is meant to help mitigate customer concerns about the potential for the TOU rates to result in higher bills than their current rate. Customers will receive compensation in advance for taking that risk while being encouraged to reduce

[18] Medical baseline, NEM, DA and existing TOU customers will be excluded from the pilot.

energy during their respective on-peak periods. The exact level of compensation is yet to be determined; however, SDG&E expects it would be in the $100 to $120 range for the pilot.

It is expected that the default residential TOU rate that SDG&E will implement in 2018 will not include "free" technology; therefore SDG&E believes that not providing that incentive in its experimental TOU pilot will allow for a purer analysis of what load impacts can be expected from just the TOU offer itself.

III. PILOT COSTS

A. Billing, Systems and IT

SDG&E's experimental TOU pilot will require changes to the billing system. While SDG&E's optional residential TOU rate will be offered as part of the SPP rollout, the two additional experimental rates are not. SDG&E estimates that its revenue, billing and IT teams will require funding and time to build out SDG&E's system so it can bill the experimental rates accordingly. Additionally, SDG&E's Customer portal / Self-service system will require additional technology budget so that these new rates can be displayed and allow for increased functionality so that bill comparisons can be made by the pilot participants. SDG&E wants to verify that pilot participants have the ability to do analysis on their electric usage and associated costs. High level estimates, shown in the table below, have been made for these activities and results in approximately $1,200,000 and over 14,000 hours.

Table LW2-5: Estimated System Costs

TEAM	COST (in $000)	HOURS
Revenue	$253	2,772
Customer Portal & Self-Service	$669	8,566
Billing	$220	2,764
Finance	$50	541
TOTAL	**$1,192**	**14,643**

B. Incentive Costs

SDG&E plans to provide a moderate incentive so that customers will be more receptive to trying out the experimental TOU rates. Incentive costs proposed in this pilot are meant to compensate customers for the potential uncertainty and/or actual negative bill impacts that could occur over the course of the pilot.

The incentive also mitigates the fact that SDG&E does not intend to offer bill protection to the customers that opt into the pilot. While bill protection can ensure that no customer is at risk for their bill being higher on the experimental TOU rate, it can also influence TOU shifting behaviors during the first year of the pilot. SMUD's opt-in treatment group had acceptance rates which were in the 16% to 18% range and included bill protection and free technology.[19]

[19] Smart Grid Investment Grant Customer Behavior Study Analysis. Residential Customer Enrollment in Time-based Rate and Enabling Technology Programs, Lawrence Berkeley National Labs, June 2013, Key Finding Experimental Result #4: For opt-in solicitations, the offer of technology does not substantially affect the customer recruitment rate, at p. xxii.

SDG&E expects a more conservative opt-in acceptance rate of 7% to 10%, compared to SMUD's acceptance rates. SDG&E's offer does not include technology incentives such as In-Home-Display ("IHDs") and/or Programmable Communicating Thermostats ("PCTs"). SDG&E has conducted several pilots utilizing technologies like PCTs and IHDs over the past 10 years, and is currently providing PCTs to residential and small commercial customers that meet certain eligibility criteria such as central air-conditioning ownership.[20] However, the primary reason for not offering enabling technologies is because SDG&E is striving, as much as possible, to get the "pure" effect of the differences associated with differing on-peak TOU period lengths and rates.

It is expected that an upfront incentive will aid in the recruiting for the experimental TOU pilot and not negatively affect or change the participant long run behavior. Some of the key findings of the HINER & Partners, Inc. Customer Survey Research, which was conducted in this proceeding in June of 2013, were that customers needed savings of about $10 per month to prompt a change over to a new rate plan. A slight majority of customers surveyed (60%) were willing to try a new rate if there was some potential to save, even if there was also potential for bill increases.[21] Since SDG&E is providing an incentive for the experimental TOU pilot, customers will be encouraged to stay in the TOU pilot for a minimum of 12 months. SDG&E estimates that incentive costs will be approximately $120 per customer. SDG&E will recruit between 4,500 and 9,000 participants which will cost anywhere from $600,000 to just over $1 million in incentives.

[20] See SDG&E's response to ACR questions 36 and 37 attached to the Supplemental Filing served concurrently with this testimony.
[21] Residential Rate OIR Customer Survey Research, HINER & Partners, Inc., June 21, 2013, at pp. 3-4.

C. Recruiting costs

Recruiting costs will consist of the development of specific marketing material for the experimental pilot. SDG&E would like to provide estimates of the associated bill impacts for each of the three options in the solicitation. SPP staff will need to be trained on the pilot recruiting process and ensure there is consistent messaging when customers call in and ask questions about the pilot. Included in these costs are costs of creating, printing and delivering the marketing materials via regular or email and will be used explicitly for the pilot. Recruiting costs are expected to be similar to that of the SPP rollout and estimated to be approximately $35 per participant. The costs are estimated to be in the range of $158,000 to $315,000.

D. Evaluation costs

SDG&E proposes to conduct a load impact evaluation that will require hiring a third party consultant. As proposed the experimental TOU pilot would be recruiting for participants along with SPP's Test and Learn soft launch. SDG&E's staff and consultants will need to be prepared for a well-coordinated pilot. SDG&E would like to initiate a Request for Proposal ("RFP") as soon as possible so that the consultant can provide input into the pilot, ensure that all data and information needed to evaluate the pilot is identified, and that the pilot design is as optimal as possible. SDG&E anticipates that its Electric Load Analysis staff will work with the consultant and that the load impact evaluation for the pilot will conform to the load impact protocols. The estimated cost for the load impact evaluation is $275,000 over the study time frame. SDG&E's total estimated costs of this experimental TOU pilot are provided below:

LW2-6: Total Estimated Experimental TOU pilot Costs

SDG&E Experimental TOU pilot Costs		
Activity	**Estimated Costs**	
IT, Billing	$	1,200,000
Recruiting	$	315,000
Incentives	$	1,080,000
Evaluation	$	275,000
Total	$	2,870,000

E. Regulatory Account

Because these costs are estimates SDG&E requests a memorandum account to track all costs associated with this experimental TOU pilot. SDG&E is not seeking a revenue requirement associated with this pilot in this filing. Rather, SDG&E finds that a memorandum account is reasonable to track costs until more certainty is known. Accordingly, SDG&E is requesting to create a memorandum account prior to when the pilot begins in order to track set-up, billing, IT, or other applicable costs. Therefore, to formally request implementation of this memorandum account, SDG&E proposes to file a Tier 2 advice letter with a preliminary statement indicating disposition of account to be addressed in SDG&E's Annual Regulatory Account Balance Update filing, or other applicable proceeding as directed by the Commission.

IV. TIMELINE

SDG&E proposes to start the pilot in January 2015, recruiting customers to opt into the pilot for a minimum of 18 months and preferably for two years. The target will be to get the desired number of customers onto one of the three TOU rates in time for the summer of 2015 and through 2016. The impact evaluation will be conducted at the end of 2016 with results available in early 2017. Load Impact information from the experimental TOU pilot

can inform SDG&E's future TOU rate design. In order to be able to offer the experimental TOU rates for 2015, SDG&E requests permission of the pilot so that it can start the planning phase immediately so that it can be ready for a timely January 1, 2015 implementation.

V. SUMMARY

SDG&E's experimental TOU pilot is consistent with the ED Staff Proposal and leverages best practices from SMUD's successful TOU pilot. SDG&E's proposal is for an opt-in cost based TOU pilot that consists to three different rates, and three different summer on-peak periods. SDG&E proposes that its TOU pilot would start in 2015 and run until the end of 2016. A memorandum account will be required to track the experimental pilot expenses. SDG&E believes that a default or opt-out TOU rate would yield higher acceptance rates, and be less costly to run. However, SDG&E is also not able to default its customers onto a TOU rate for the pilot as it runs contrary to the AB 327 language. SDG&E's interpretation of AB 327 is that it prohibits any default TOU rate for any residential customer prior to 2018[22] and therefore SDG&E is proposing an opt-in randomized treatment design. However, should the Commission determine otherwise SDG&E would reconsider its approach. The marketing for the experimental TOU pilot will be conducted at the same time as the SPP test and learn strategy is being rolled out, so that SDG&E can leverage the similar activities needed for both efforts. The opt-in customers will be randomly assigned to one of three TOU rates. Customers opting into the pilot will

[22] Public Utilities Code Section 745, as amended by AB 327: "(b) The commission may authorize an electrical corporation to offer residential customers the option of receiving service pursuant to time-variant pricing and to participate in other demand response programs. The commission shall not establish a mandatory or default time-variant pricing tariff for any residential customer except as authorized in subdivision (c). (c) Beginning January 1, 2018, the commission may require or authorize an electrical corporation to employ default time-of-use pricing for residential customers"…

receive an incentive that will help mitigate any negative bill impacts that may be experienced when participating on the pilot. Data collection should begin in 2015 and run through 2016 so that the analysis timeframe is at a minimum 18 months. The formal TOU evaluation of the pilot will be conducted according to the load impact protocols,[23] which is to be filed annually at the CPUC.

This concludes my supplemental testimony.

[23] SDG&E is required to conduct load impact studies for its demand response activities, which includes ex post evaluation for non-event based resources see Chapter 5. Load Impact Estimation for Demand Response and Regulatory Guidance, April 2008.

VI. QUALIFICATIONS

My name is Leslie Willoughby. My business address is 8306 Century Park Court, San Diego, California 92123. I am employed by San Diego Gas & Electric Company ("SDG&E") as Electric Load Analysis Manager in the Strategic Analysis and Pricing Department. In my current position, I am responsible for managing and conducting load and energy research analysis.

I attended San Diego State University in San Diego, CA, where I graduated with a Bachelor of Science in Business Administration in 1983. I continued to attend San Diego State University where I graduated with an MA in Economics in 1989. In 1990, I was employed by SDG&E to work in the Load Research Section of the Marketing Department as an Associate Economic Analyst. Over the past 20 years I have held positions of increasing responsibility within the company that have included Load and Energy Research.

I have previously testified before the Commission.