### BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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

R.12-06-013 (Phase 1)

#### RESPONSE OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) TO RATE DESIGN QUESTIONS PURSUANT TO ASSIGNED COMMISSIONER'S RULING (PHASE 1)

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Dated: March 21, 2014 PACIFIC GAS AND ELECTRIC COMPANY

Pursuant to the February 13, 2014, Assigned Commissioner's Ruling Requiring Utilities to Submit Phase 1 Rate Change Proposals, attached are Pacific Gas and Electric Company's (PG&E) responses to Rate Design Questions 26-38.

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PACIFIC GAS AND ELECTRIC COMPANY

Rulemaking: 12-06-013
(U 39 E)
Exhibit No.:
Date: March 21, 2014
Witness(es): Various

#### PACIFIC GAS AND ELECTRIC COMPANY

### LONG-TERM RESIDENTIAL ELECTRIC RATE DESIGN REFORM PROPOSAL

#### PHASE 1

#### **RESPONSES TO RATE DESIGN QUESTIONS 26-38**



# PACIFIC GAS AN D ELECTRIC COMPANY RESPONSES TO ASSIGNED COMMISSIONER 'S RULING RATE DESIGN QUESTIONS 26 -38

# PACIFIC GAS AND ELECTRIC COMPANY RESPONSES TO ASSIGNED COMMISSIONER'S RULING RATE DESIGN QUESTIONS 26-38

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# PACIFIC GAS AND ELECTRIC COMPANY RESPONSES TO ASSIGNED COMMISSIONER'S RULING RATE DESIGN QUESTIONS 26-38

#### 4 A. Introduction

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Pursuant to the February 13, 2014, Assigned Commissioner's Ruling Requiring Utilities to Submit Phase 1 Rate Change Proposals, below are Pacific Gas and Electric Company's (PG&E) answers to Rate Design Questions 26-38.

# B. Additional Details on Time-of-Use Rates, Time Periods and Seasons Question 26

Provide any analysis which demonstrates that the time periods and seasons that you propose for your TOU and CPP rates are appropriate for at least 5 years.

#### **Response to Question 26**

PG&E proposed no new time periods or seasons for its Time-of-Use (TOU) and Critical Peak Pricing (CPP) rates, other than to combine the summer part-peak and off-peak periods into a single TOU period for its proposed simplified non-tiered TOU rate. PG&E plans to evaluate potential changes in seasons and TOU periods for its entire service territory across all customer classes during 2014 and, depending on the results of its evaluation, will submit a proposal in its upcoming 2015 Rate Design Window (RDW) proceeding to either keep the TOU periods as is or request California Public Utilities Commission (CPUC) approval for new TOU periods that would then be in effect for at least five years. (The 2015 RDW is expected to be filed in late November 2014, per the CPUC's current Rate Case Plan.) PG&E believes that stability in TOU time periods is important to avoid customer confusion; therefore, care should be taken before recommending different TOU periods consistent with the direction in Assembly Bill (AB) 327 to adopt periods that would be relevant for at least a five-year period for a potential future default residential TOU. To the extent TOU periods require change, all customer classes are likely to be affected. In this event, PG&E expects that its proposal will include a timeframe to transition all customer groups to new TOU periods that are consistent with the time required for education and outreach for customer awareness.

#### **Question 27**

 When should the Commission next modify TOU and CPP time periods and seasons, and why?

#### **Response to Question 27**

PG&E recommends that the Commission consider revisions to TOU and CPP time periods in the 2015 RDW. Revised TOU periods then could be in place as early as 2016, consistent with customer education and outreach needs. Although this statewide rulemaking is concerned primarily with residential rate issues, PG&E anticipates that future TOU and CPP period changes (if warranted) could affect all customer classes. A change of this scope will require careful planning, coordination and communication of the new time periods to all of PG&E's affected residential, commercial, industrial and agricultural customers. Also, substantial efforts will likely be needed to adapt all of the existing marginal cost, revenue allocation and rate design models to any new TOU time periods or seasons. Successfully managing these changes will be a complex undertaking. Consequently, PG&E will determine, as part of its proposal in the 2015 RDW, the appropriate timeframe for changes to the TOU periods for each customer class.

#### **Question 28**

What is the appropriate proceeding to address modifications to the TOU and CPP time periods and seasons in a coordinated fashion, and the optimal process and frequency of developing and approving subsequent changes (including this proceeding)?

#### **Response to Question 28**

PG&E recommends using its upcoming 2015 RDW proceeding to address any modifications to TOU and CPP time periods and seasons. A change of this scope will require careful planning, coordination and communication of the new time periods to all of PG&E's affected residential, commercial, industrial and agricultural customers. It will also require substantial efforts to adapt all of the existing marginal cost, revenue allocation and rate design models to any new TOU time periods or seasons.

#### **Question 29**

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If TOU time periods and seasons should be addressed in this proceeding should they be part of Phase 1 and or a later subsequent phase of this proceeding? Please explain your answer.

#### **Response to Question 29**

PG&E has not proposed that TOU time periods and seasons be addressed in this proceeding, as this proceeding is limited to residential rate design issues. As discussed in the response to Question 26, PG&E believes that any changes to TOU periods due to changing cost conditions will most likely affect all customer classes, not just residential. Therefore, PG&E proposes that any changes to TOU periods be addressed in PG&E's upcoming 2015 RDW proceeding, to allow PG&E time to study and determine the best TOU periods and how they might be implemented going forward. As noted above, the best approach for implementing these potential changes must include adequate communication to all of its customers, some of which would require lead time as these groups may need to make changes to their operations to accommodate shifting seasons and/ or TOU period definitions. Consideration of potential changes to each utility's different TOU time periods and seasons raises many issues that are unique to each utility and may affect non-residential classes, thus consideration in a consolidated proceeding is inadvisable and could lead to unnecessary complexities and delays, or otherwise be administratively inefficient.

#### **Question 30**

Regardless of when and where TOU time periods and seasons are addressed, please comment<sup>1</sup> on the following potential list of issues and questions and add any additional issues or questions that should be addressed:

- a) What factors, in addition to high marginal energy costs, should determine the selection of the peak hours for TOU rate design?
- b) What is the optimal length of peak pricing periods that will induce peak demand reduction and load shifting?

By comment we mean comment on the questions and issues themselves without attempting to answer the actual questions. If you are proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding then please answer the questions in substance as well.

- c) Would offering multiple TOU rate options (e.g., a choice of shorter or longer peak periods) increase the attractiveness of optional TOU rates?<sup>2</sup>
  - d) Whether to have a single peak period reflecting the highest marginal energy costs in the day or two diurnal peaks (one peak reflecting the morning ramp and the other the late afternoon/evening ramp);
  - e) Whether to include a super off-peak rate in general TOU rates to encourage off-peak EV charging or to encourage electric vehicle (EV) owners to switch to an EV-specific rate schedule;
  - f) How steeply differentiated to make the peak to off-peak and semi-peak to off-peak ratios;
  - g) Whether TOU time periods and seasons should be consistent statewide for all IOUs for the purpose of coordinating outreach and education and customer awareness; and
  - h) How best to balance the need for technical precision around system needs with consumer comprehension and ability to take action.

#### **Response to Question 30**

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31 32 Pursuant to the guidance in footnote 1 above, because PG&E is proposing that the CPUC address TOU periods in PG&E's 2015 RDW, PG&E's response aims to "comment on the questions and issues themselves without attempting to answer the actual questions."

- a) PG&E agrees that high marginal energy costs are relevant to consider in establishing TOU periods, but the CPUC should also consider the time in which generation capacity is needed, since the generation capacity cost is a fundamental component of peak pricing. Also, to the extent that distribution costs vary by TOU period, any consideration of revised TOU periods will need to include the timing of distribution peak loads. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.
- b) This issue of determining the optimal length of peak pricing periods that will induce peak demand reduction and load shifting is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.

<sup>2</sup> Arizona's Salt River Project has implemented such a strategy.

c) The issue of whether offering multiple TOU rate options (e.g., a choice of shorter or longer peak periods) would increase the attractiveness of optional TOU rates is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.

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- d) The issue of whether to have a single peak period reflecting the highest marginal energy costs in the day versus having two diurnal peaks is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.
- e) The issue of whether to include a super off-peak rate in general TOU rates to encourage off-peak EV charging or to encourage EV owners to switch to an EV-specific rate schedule is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.
- f) The issue of how steeply differentiated to make the peak to off-peak and semi-peak to off-peak ratios is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.
- g) No, TOU time periods and seasons should not be consistent statewide for all IOUs, because each utility's system is different, which results in marginal energy and capacity (generation and distribution) costs by hour of the day being different between each IOU. Therefore, consistent cost-based TOU periods for all IOUs are not possible and would result in sub-optimal price signals for some portion of customers. Consequently, any potential coordination of outreach, education and customer awareness along consistent time periods is not possible.
- h) The issue of how best to balance the need for technical precision around system needs with consumer comprehension and ability to take action is a relevant issue for consideration. However, PG&E is not proposing that TOU time periods and seasons be addressed in Phase 1 of this proceeding.

# C. Customer Communication, Outreach and Education, and Technology Question 31

Provide a year-by-year roadmap for customer communication, outreach and education, and technology that addresses how you will prepare customers for

- the changes in the residential rate design over the 2015-2018 period and beyond. Discuss how your roadmap addresses rate design principle #10 in this proceeding. Specifically, describe how your plan addresses each of following groups:
  - Elderly and vulnerable customers including Medical Baseline and third party notification customers
  - CARE and other low-income customers
  - Customers from diverse cultural and linguistic communities
  - · Other hard to reach customers

#### **Response to Question 31**

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Because the Commission's decision on PG&E's rate design proposals, the associated transition period for these changes, and associated recovery of the incremental costs of executing this roadmap will significantly affect the content and scope of PG&E's activities, PG&E's roadmap for customer communication, outreach and education, and technology to support its Phase 1 rate design reforms is preliminary and subject to change and further revision in the future. Nonetheless, PG&E already has begun preliminary planning for activities that will be an integral part of implementation of PG&E's rate reform proposals if approved by the Commission later this year. These activities are described in more detail below and in response to Question 32. Once a decision is issued, PG&E will update and revise as appropriate the details of its plans to implement robust and targeted customer communication, outreach and education, and technology to support the adopted rate changes.<sup>3</sup> Because of lead-time requirements, in order to be prepared to implement the changes soon after a decision in Phase 1 of this proceeding, PG&E expects to begin efforts, including the Information Technology (IT) programming necessary to implement the proposed rate design changes prior to the issuance of a final decision in 2014. If the CPUC adopts significant changes from PG&E's proposals for 2015, PG&E may require additional time to implement such changes.

As described in response to Question 37, different communication, outreach and education, and technology efforts will be needed for the subset of customers involved in PG&E's proposed Time-of-Use pilot program, and may differ from the standard approach, as appropriate.

PG&E believes Principle #10 in this proceeding represents a critical step in the success of the Residential Rate Reform.<sup>4</sup> PG&E's outreach approach has been informed by its experience and learnings from its successful residential SmartRate™ program acquisition efforts, preparation to close Electric Vehicle Schedule E-9 and transition customers to Schedule EV, and implementation of default time varying pricing for non-residential customers. Therefore, PG&E intends to engage customers through general awareness outreach plus outreach to "most impacted" customers and provide training and tools for all of our customer-facing employees. The preliminary roadmap described below incorporates internal PG&E training and outreach to assist customers' understanding and acceptance of new rates. The outreach also considers the relative customer bill impacts associated with the transitions in each year. In addition, preliminary plans for activities to support vulnerable and hard to reach customers are described below, consistent with the estimated bill impacts described in PG&E's Phase 1 proposals.

PG&E's preliminary roadmap, presented below, is organized by function: (1) Customer Communications/Inquiry; (2) Customer Outreach and Education; and (3) Technology including online tools, billing, and other information functions.

#### 1. Customer Communication/Inquiry

 In 2014, prior to a Commission decision, PG&E will begin training employees engaged in customer communications, billing, and credit. The training will address PG&E's proposed changes to rate design, new rate options, and rate schedules which are closing to new customers and being eliminated. Training will be staged to take into account the scope and schedule of the Commission's consideration of PG&E's Phase 1 proposals. Training materials for employees will be created and existing reference materials will be updated to incorporate changes. In addition, PG&E will improve its Customer Service Representatives' (CSR) ability to help customers choose their rate plan by creating a display in the Customer Care

Principle #10 states: "Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes and appropriately considers the bill impacts associated with such transitions."

and Billing system (CC&B) that shows the alternate rate plans and savings from changing rate plan. The training will include effective ways to use this tool in conversations with customers.

PG&E's customer inquiry plan leverages its existing tools for communicating with vulnerable and hard to reach customers. PG&E has a dedicated phone line for California Alternate Rates for Energy (CARE) and low income customers. PG&E also provides translation services in over 185 languages other than English for customers from diverse cultural and linguistic communities. Customers calling into the Contact Centers that need an interpreter are provided one while the customer remains on the line. If a non-English speaking customer goes to a PG&E Customer Service office and the CSR does not speak his or her language, the customer is referred to the lobby phone that connects the customer to a Contact Center. A contact center CSR can then handle the call using PG&E's language service vendor if necessary to respond to the customer. All PG&E customer service offices have lobby phones available for customers.

#### a. Customer Communication/Inquiry by Year

During each year of the 2015-2018 transition period, the focus of training for personnel, including PG&E's CSRs, will be on the specific rate changes that are occurring during that year. Fig. 1 FPG&E's proposals are adopted, PG&E expects that training would occur on the following topics, subject to revision based on the content of the Commission's final Phase 1 decision:

• 2014 – Prior to a decision and subject to appropriate cost recovery PG&E would begin training on: the collapse of Tiers 2 and 3; the impact of tier collapse on Family Electric Rate Assistance (FERA), Medical Baseline above 200 percent baseline quantity (BQ), and SmartRate; the initial new \$5 residential monthly service fee (\$2.50 for CARE) and how it reduces volumetric rates; the 2015 reduction in the CARE discount to continue moving it toward the legislature's required 30 percent – 35 percent range; the availability of a new

PG&E will begin training on these changes in the year prior to each January 1 implementation and so begin training in 2014.

non-tiered opt-in TOU rate; and closing of the Schedule E-6 tiered
TOU rate plan to new customers.

- 2015 –PG&E expects that it would complete training begun in 2014 and begin providing direct customer inquiry support to customers. PG&E would begin training on the following changes to be implemented January 1, 2016: The increase to a \$10 residential monthly service fee (\$5 for CARE); the further reduction of the CARE discount to continue moving toward the legislature's required 30 percent 35 percent range; and elimination of the tiered TOU and seasonal rate schedules and migration of those customers to their choice of PG&E's open rate schedules as described in Section C below.
- 2016 PG&E would expect to provide customer inquiry support and begin training for the following: the post-2016 increase to the monthly service fee based on the Consumer Price Index as allowed by statute, and the further reduction of CARE discount toward the legislature's required 30 percent – 35 percent range.
- 2017 PG&E would expect to provide customer inquiry support and begin training for the following: the post-2017 increase to the monthly service fee based on the Consumer Price Index as allowed by statute; the collapse of Tiers 2 and 3 resulting in a two-tiered rate structure; and further reduction of the CARE discount toward the legislature's required 30 percent – 35 percent range.
- 2018 PG&E would expect to complete training begun in 2017 and provide customer inquiry support and training for the reduction in the CARE discount to reach the legislature's required 30 percent 35 percent range and any other changes to be implemented in 2018.

#### 2. Customer Outreach and Education

Once the new rate structure and transition approach is approved, PG&E will begin to use a multi-touch strategy to provide customers with education and outreach designed to drive awareness of the structural changes in the standard residential rates that will occur during each year of the transition (including driving awareness of changes to the tier structure and tier rate

differentials and the addition and increasing levels of monthly service fees during the transition period). In addition, outreach will aim to educate customers about the availability of optional rate plans, including acquisition of customers choosing non-tiered TOU rate plans.

As discussed in detail further below, all residential customers will be provided with general awareness outreach to provide information about the new rate structures, however, PG&E will provide direct outreach to segments requiring detailed information on the rate changes including: the most impacted CARE and non-CARE customers, hard-to-reach communities, and customers with discontinued rate schedules.

#### a. General Awareness to All Residential Customers

Each year general awareness of the changes to the tier structure and monthly service fee will be provided to all residential customers by utilizing bill inserts, articles in the residential energy newsletter, detailed information on PG&E's website, articles included on PG&E's Currents external news website, and through digital media and e-mail communications to customers who have provided an email address.

## b. Direct Outreach to CARE Customers and the Most Impacted Non CARE Customers

Each year, additional targeted direct outreach efforts will be provided to the CARE and non-CARE customers who, based on PG&E's analysis of billing data, are projected to experience the largest bill increases. PG&E expects that, subject to appropriate Commission approval of incremental cost recovery, customers classified as most impacted would be provided with multi-lingual direct mail or email that provides specific information about the rate changes occurring during that year, as well as a rate comparison report showing bill impacts of the various rate plans they could choose. After the rate changes have occurred, customers would receive a multi-lingual postcard in the mail that provides additional information and tips on how to best perform

Gustomers with a SmartMeter™ and 9 months of data will receive a customized rate comparison, excluding Multi-Family, Direct Access/Customer Choice Aggregation (DA/CCA) and Net Energy Metering (NEM) customers.

under the changed rates. Customers would also receive automated voice recording calls that provide information on the rate changes and direct them to the PG&E website for more detailed information. The additional outreach "touches" will provide the most impacted customers with information that will help them further understand the rate changes and provide ways to help them manage their bill through Energy Efficiency (EE) Audits, "My Energy Home Checkup," the Energy Savings Assistance program, customized tips based on seasons, the Balanced Payment Plan, and optional rate plans such as non-tiered TOU and SmartRate and programs such as SmartAC™.

#### c. Customers Enrolled in Discontinued Rate Schedules

PG&E has proposed that, as of January 1, 2016, all customers on Schedules E-6, EL-6, E-7, EL-7, E-8 and EL-8 will be moved to their choice of PG&E's open rate schedules. Prior to the elimination of these schedules, customers will be notified and given a choice to move to non-tiered TOU, Schedule E-1 or other rate plan options. In addition, customers who have the necessary SmartMeter data will be guided to their rate comparison in My Energy or mailed a rate comparison to help them make a rate plan choice.

If the customer does not make an affirmative choice, PG&E will transition TOU customers to the tariff which produces the lowest annual bill for that specific customer based on the customer's rate comparison. (Customers on CARE will transition to the CARE version of the E-TOU rate plan, or to Schedule EL-1, depending on which produces the lowest annual bill.) Customers on Schedules E-6, EL-6, E-7 and EL-7 who do not have the necessary SmartMeter data for a rate analysis, would be migrated to E-TOU or E-TOU CARE. Customers on Schedule E-8 or EL-8 will be migrated to Schedules E-1 or EL-1.

#### d. Hard-to-Reach Communities

PG&E plans to closely coordinate with a variety of community-based organizations and use other outreach methods that can provide awareness utilizing targeted channels for specific hard to reach audiences. PG&E will partner with community-based organizations with

expertise in reaching diverse cultural and linguistic communities, the elderly and vulnerable customers, and low income customers that may or may not be on PG&E's CARE program. Outreach to these communities will occur in a variety of ways which may include but are not limited to: outreach through libraries, churches, and food banks, partnerships with Medicaid, American Association for Retired Persons, and Covered California, and conducting cultural outreach through mass media, digital, newspapers, and radio through multi-cultural focused media outlets.

#### e. Optional Rate Plans

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PG&E is planning to leverage the targeted outreach model developed and successfully employed for SmartRate acquisition efforts in the last few years, based on earlier lessons learned. This approach targets both CARE and non-CARE customers. As described in the response to Question 34, PG&E will encourage customers to opt-in to the new non-tiered TOU Rate Schedules beginning in 2015 through general awareness of the rate plan and targeting outreach to customers with a high propensity to shift load from the on-peak or critical peak periods, and also a high propensity to enroll. PG&E will monitor the mix of customers and adjust its targeting approach to mitigate revenue recovery loss that might occur if only high consuming customers were to enroll. To the extent revenue shortfalls occur due to migration of upper tier consuming customers to the non-tiered TOU rate, 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.

#### f. Customer Outreach and Education by Year

Similar to the expected schedule for Customer

Communication/Inquiry, each year of the 2015-2018 transition, PG&E will provide outreach to drive general awareness of the specific rate

PG&E's General Rate Case (GRC) Phase I included a funding request for targeting residential Time Varying Pricing customer acquisition. PG&E includes a description of its plans here for completeness; however the funding request will not be included in this proceeding to the extent PG&E's plans are funded through the GRC.

changes that are occurring during that year, and provide additional information to the customers most impacted in each year. In addition, PG&E will provide outreach to customers migrating off of eliminated rate schedules.

Prior to a decision and subject to staging and appropriate cost recovery to reflect the status of the Phase 1 proceeding, such outreach activities would address:

- 2014 Customer research and preliminary development of outreach.
- 2015 General awareness of, and targeted outreach to the customers most impacted by, the collapse of Tiers 2 and 3; the new \$5 monthly service fee (\$2.50 for CARE); reduction of CARE discount; and encouragement to adopt opt-in non-tiered TOU.
- 2016 General awareness of, and targeted outreach to the customers most impacted by, the increase to a \$10 monthly service fee (\$5 for CARE), reduction of CARE discount, and elimination of the tiered TOU and seasonal rate plans; and encouragement to adopt opt-in non-tiered TOU.
- 2017 General awareness of, and targeted outreach to the customers most impacted by, the increases to the monthly service fee amount based on Consumer Price Index and reduction of CARE discount; and encouragement to adopt opt-in non-tiered TOU.
- 2018 General awareness of, and targeted outreach to the customers most impacted by, the collapse of Tiers 2 and 3 for a two-tiered rate structure and reduction of the CARE discount; and encouragement to adopt opt-in non-tiered TOU.

#### 3. Technology

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Changes to the actual rate structures will require updates to PG&E's customer billing and customer information technology and programming, including the resulting changes to PG&E's broad array of existing online bill estimation, rate analysis, energy management, Demand Response (DR) and energy efficiency tools available generally to all residential customers. In addition, as discussed above, PG&E proposes to improve its CSRs' ability to identify customers who would benefit from changing rate plans by

creating a dashboard tool that shows potential savings from alternate rate plans.

#### a. Technology by Year

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If PG&E's proposals are approved with appropriate cost recovery, structural changes to its rate schedules would be expected to require the following billing and information system changes:

- 2014 Collapsing Tiers 2 and 3; revising FERA, Medical Baseline above 200 percent BQ, and SmartRate participation credits; adding a new monthly service fee; adding an optional non-tiered TOU rate; and closing E-6 TOU rate plan to new customers. Usage greater than 100 percent and less than 200 percent of baseline will be charged the new Tier 2 rate. To enable these changes, PG&E will need to modify its billing systems (CC&B and the Advanced Billing System (ABS)) and other impacted systems to support approximate 30 interval and non--interval single family and multi-family residential rate schedules as follows:
  - Enable changes in CC&B and ABS to modify rate calculation routine to create new Tier 2 and Tier 3 threshold for CARE, non-CARE and Medical Baseline customers.
  - Enable changes in CC&B and ABS to redefine and build the new calculation rules to determine FERA Discount, Medical Discount and SmartRate participation credits for non-CARE and Medical Baseline customers.
  - Build a new non-tiered TOU rate and related calculation rules for CARE, non-CARE, FERA and Medical Baseline customers.
     Implement changes based on new business rules to handle CARE, Medical and Employee discounts and SmartRate participation credits.
  - Enhance energy statement presentment to display the new
     Tier 2 and eliminate the Tier 4 usage threshold. The energy statement will be displayed in English, Spanish or Chinese.
  - Modify CC&B to enable the energy alert program to identify the new Tier 2 and 3 thresholds to alert customers when monthly usage moves up to higher tiers.

1	<ul> <li>Modify rate analysis tools based on the new rate structure and</li> </ul>
2	new non-tiered TOU rate to support inquiry from customers,
3	including CARE, FERA and Medical Baseline customers.
4	<ul> <li>Change the My Energy content displayed to customers</li> </ul>
5	regarding new Tier 2 and Tier 3 thresholds and apply applicable
6	new Tier 2 and Tier 3 rate values for CARE, non-CARE and
7	Medical Baseline customers.
8	<ul> <li>Display changes in the My Energy CARE application for</li> </ul>
9	rules/information regarding FERA Discount, Medical Baseline
10	and SmartRate participation credits.
11	<ul> <li>Build business logic that displays SmartRate participation</li> </ul>
12	credits for the new non-tier TOU rate.
13	<ul> <li>Display new non-tier TOU rate to support inquiry for customers,</li> </ul>
14	including CARE, FERA and Medical Baseline customers.
15	<ul> <li>Display content changes with regards to the rate changes.</li> </ul>
16	<ul> <li>Enhance the capability of CSRs to view rate analysis results</li> </ul>
17	online.
18 •	2015 – Eliminate Schedules E-6, E-7, and E-8 (and the CARE
19	versions thereof), and migrate those customers to their choice of
20	non-tiered TOU rate schedule or to Schedule E-1 or EL-1.
21	(Customers on CARE will transition to the CARE version of the rate
22	plan.) PG&E will need to modify CC&B and other impacted systems
23	to enable the following functionality:
24	<ul> <li>Identify the eligible customers on Schedules E-6, E-7 and E-8</li> </ul>
25	(and CARE versions thereof) based on business rules and
26	metering requirements.
27	<ul> <li>Generate letters to inform customers about their eligible rate</li> </ul>
28	options ahead of the rate change date, based on the customer
29	communication outreach plan.
30	<ul> <li>Support the rate migration process.</li> </ul>
31	<ul> <li>Display changes in the My Energy CARE application for</li> </ul>
32	rules/information regarding FERA Discount, Medical Baseline
33	and SmartRate participation credits.
34	<ul> <li>Display content changes with regards to the rate changes.</li> </ul>

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- **2016** None of PG&E's 2017 proposals require incremental structural changes to information technology systems.
- 2017 PG&E proposes to further collapse its residential rate structure from three to two tiers. To enable this structural change, PG&E will need to modify CC&B and other impacted systems as follows:
  - Modify billing system rate calculation routines to create a new two-tiered rate structure for CARE, non-CARE and Medical Baseline customers. Establish new business rules in CC&B and ABS on how to calculate various discounts and exemptions.
  - Modify the energy alert program as a result of changes to the tier threshold.
  - Modify rate analysis tools to support rate comparison options for the various residential rates.
  - Modify My Energy rules/information regarding a new Tier 2 rate structure for CARE, non-CARE and Medical Baseline customers.
  - Display content changes with regards to the rate changes.

#### **Question 32**

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What level of expenditure do you propose each year for customer communication, outreach and education, and technology? How are these expenditures broken out, and what is the justification for the level of budget?

#### **Response to Question 32**

PG&E is unable at this time to provide a specific proposed annual level of expenditures for its preliminary plans for customer communication, outreach and education, and technology described in response to Question 31, above. This is because the scope and content of the Commission's decision on PG&E's Phase 1 proposals is as yet unknown. However, PG&E has completed a preliminary estimate of the likely range of incremental expenditures necessary to implement its customer communication, outreach and education, and technology plan, assuming approval of its Phase 1 proposals without change by the end of 2014. PG&E expects to revise this preliminary estimate in the next few months as the Residential Rate Reform Phase 1 proceeding moves forward and upon Commission approval of PG&E's pending 2014 GRC Phase 1 overall request,

which does not include cost recovery for specific AB 327-related rate design reform customer-related costs.

In order to ensure that PG&E's customer outreach and education, communication and related technology costs are appropriately tracked and recorded for appropriate cost recovery evaluation by the Commission and interested parties, particularly incremental costs for training, customer outreach and education, and technology systems activities that PG&E anticipates conducting in 2014 prior to implementation of Phase 1 rate changes, PG&E requests that the Commission, as soon as possible in 2014, approve a PG&E memorandum account to track and record such costs for future review and disposition by the Commission. This memorandum account would only include costs incurred in 2014, 2015, and 2016, because PG&E would expect to include its 2017 and 2018-related costs in its 2017 GRC Phase 1 request (expected to be filed in December 2015), or other appropriate proceeding.

In light of the preliminary and uncertain nature of PG&E's customer-related costs for its Phase 1 rate changes, Table 1 below provides preliminary ranges of such expenditures by year and by category needed to implement PG&E's Phase 1 proposals.<sup>8</sup>

TABLE 1
PACIFIC GAS AND ELECTRIC COMPANY
PHASE 1 RESIDENTIAL RATE REFORM IMPLEMENTATION INCREMENTAL COSTS
ESTIMATED RANGE (PRELIMINARY, AS OF MARCH 21, 2014)
(\$000s)

_	Line No.		2014	2015	2016	2017	2018	2014-2018
	1	Customer Outreach and Education	\$414 to \$506	\$,3615 to \$4,419	\$3,174 to \$3,880	\$3,174 to \$3,880	\$3,039 to \$3,715	\$13,417 to \$16,399
	2	Customer Communications/ Inquiry	\$352 to \$430	\$1,068 to \$1,306	\$936 to \$1,144	\$936 to \$1,144	\$738 to \$902	\$4,030 to \$4,926
	3	Billing System and Information Technology	\$3,484 to \$4,084	\$191 to \$241	\$0 to \$0	\$2,861 to \$2,861	\$0 to \$0	\$6,536 to \$7,186
	4	Total Low	\$4,250	\$4,875	\$4,111	\$6,972	\$3,777	\$23,984
	5	Total High	\$5,020	\$5,966	\$5,024	\$7,885	\$4,617	\$28,511

The range of preliminary costs estimated for PG&E's proposed TOU pilot project are provided in the response to Question 37.

The purpose and preliminary justification for the range of estimated expenditures is discussed in the response to Question 31 and incorporated by reference here. In addition, in a separate phase of this proceeding or new application, PG&E intends to provide a more specific request for incremental cost recovery for these categories of incremental costs, including those tracked and recorded in the memorandum account PG&E requests above.

#### **Question 33**

Explain how rate-related customer communication, outreach and education, and technology efforts will interface with similar efforts related to residential demand response and energy efficiency programs.

#### **Response to Question 33**

PG&E's customer outreach will include coordinated education, information and tools that can help customers manage their bill, including: EE Audits and rebates, "My Energy Home Checkup," the Energy Savings Assistance program, Home Energy Reports, My Energy tools, customized tips based on seasons, the Balanced Payment Plan, and optional rate plans such as non-tiered TOU and SmartRate, and programs such as SmartAC. For example, customers provided with information to encourage enrollment in SmartRate will also be provided information on the SmartAC program, and other programs/supporting devices as they become available. Customers will also be encouraged to utilize the home energy reports and other My Energy tools and services to better understand their energy usage, learn about available appliance rebates, and get money-saving tips for their home.

#### **Question 34**

How will your utility attract the maximum number of customers to opt-in to time-variant rates prior to 2018? Describe your strategy and the methods you will use to target and segment outreach to customers that maximizes effectiveness of outreach efforts. During the transition period (2015-2017), would financial incentives either as rebates or rate discounts, be appropriate as a means to induce customers to experiment with TOU and CPP rates? Why or why not? During the transition period (2015-2017) should customer outreach and education about TOU and CPP rates, and possibly incentives to adopt them, be targeted based any or all of the following:

- Geographic based on climate zones with greatest potential peak load to shed.
- Low-income and hard to reach customers.
- Geographic based on highest avoided Transmission and Distribution (T&D) cost areas.
- Other demographics that indicate greatest likelihood to reduce peak load.

#### **Response to Question 34**

PG&E is planning to leverage the targeted outreach model developed and successfully employed for SmartRate acquisition efforts in the last few years based on earlier lessons learned. This approach targets both CARE and non-CARE customers. PG&E will encourage customers to opt in to the new non-tiered TOU rates beginning in 2015 through general awareness of the rate plan and targeted outreach to customers with a high propensity to shift load from the on-peak or critical peak periods, and also a high propensity to enroll. PG&E will monitor the mix of customers and adjust its targeting approach to mitigate revenue recovery loss that might occur if only upper tier consuming customers were to enroll. To the extent revenue shortfalls occur due to migration of upper tier consuming customers to the non-tiered TOU rate, 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.

Regarding the question about outreach or incentives based on T&D high avoided cost areas, PG&E does not plan to target based on T&D high avoided cost areas. PG&E will explore testing a variety of incentives during the transition period to drive higher response and adoption rates. Incentives can include those with perceived value or with specific monetary value, such as debit cards. Each type can be tested to see whether the incentive increases adoption and is also cost-effective to maintain. Any incentives tested will be monitored, and adjustments will be made base on those results.

In addition, PG&E's proposed non-tiered TOU rate is easier to understand than the existing Schedule E-6 and EL-6 rates because it has fewer periods and no tiers. Instead of facing the possibility of 9 different prices in any month on the

<sup>9</sup> Currently, 22 percent of SmartRate customers are on CARE and 7 percent of TOU customers are on CARE.

proposed Schedules E-6/EL-6, customer would only have two possible prices in each month. Because of its simplicity, PG&E expects better response to marketing outreach for the non-tiered TOU rate than would occur if the E-6/EL-6 rate plan were promoted.

#### **Question 35**

Consistent with Sec. 745(a)(5) describe how the utility shall provide each residential customer, not less than once per year, using a reasonable delivery method of the customer's choosing, a summary of available tariff options with a calculation of expected annual bill impacts under each available tariff. Describe whether this rate comparison is currently offered online, will continue to be offered online, and what, if any, improvements you will make to enhance customers' understanding of their rate options in economic terms.

#### Response to Question 35

If the Commission were to adopt default TOU, consistent with Public Utilities' Code Section 745(a)(5), each year beginning with the year prior to the default date, PG&E would provide all eligible 10 residential customers with a rate analysis that shows the annual bill for each available rate plan option based on the customer's usage data from the previous nine to twelve months. Customers who have expressed preference for communications by email will receive email notifications encouraging them to review their rate comparisons on My Energy. All other customers will receive direct mail informing them they may register and/or log into their My Energy account and review their rate comparison. Customers may opt-out of receiving the rate analysis.

PG&E plans to use the same methodology as is used for the rate comparisons which are currently available, and will continue to be available, in a secure online environment, by logging into My Energy. These rate analyses are available once a customer has at least nine months of SmartMeter™ data. Customers currently are able to log into My Energy and access a customized rate comparison that displays annual costs on their current rate plan versus what annual costs might be on other eligible rate plans. Further, the My Energy rate

The set of customers eligible for default TOU excludes those with less than one year of interval usage data, those receiving Medical Baseline, those requesting third-party notification, and those whom the CPUC has ordered cannot be disconnected without an in-person visit, as well as other customers designated by the CPUC at its discretion.

analysis tool allows customers to test the forecast bill impacts of making changes to their overall, peak, and/or critical peak day usage.<sup>11</sup>

PG&E plans to improve CSR access to its current rate comparison tool by developing a dashboard tool for CSRs. Customers who prefer telephone communications then would have improved access and understanding in economic terms of potential bill savings under various combinations of rate plan and energy usage behavior scenarios. In addition, PG&E plans to drive self-service customers who visit pge.com to the rate comparison tool through pop-up messages and links in key locations such as the online bill pay site and the My Energy home page.

#### **Question 36**

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Given the evidence that enabling technologies such as communicating and programmable thermostats 12 increase customer load response when coupled with TOU and CPP rates, how would you propose to encourage adoption of such devices in conjunction with the roll-out of new TVP rates? Describe whether any of the following approaches are appropriate and reasonable as well as other methods you propose:

- Incentives for the adoption of enabling technology either as rebates or rate discounts.
- Targeting of incentives for technology based any or all of the following:
  - Geographic based on climate zones with greatest potential peak load to shed
  - Low-income and hard to reach customers
  - Geographic based on highest avoided T&D cost areas
  - Other demographics that indicate greatest likelihood to reduce peak load

#### **Response to Question 36**

As described in PG&E's response to Question 20 (included with its February 28, 2014 testimony), PG&E is investigating the opportunity to launch a residential programmable communicating thermostat (i.e. Smart Thermostat). If

<sup>11</sup> Customers without SmartMeters™, DA/CCA customers, those on NEM rate plans or those who have not accumulated at least nine months of interval data are not able to see this comparison.

<sup>12</sup> Some models are capable of connecting to smart meter data.

a programmable communicating thermostat is introduced. PG&E would coordinate customer outreach to encourage adoption of non-tiered TOU and SmartRate (PG&E's residential CPP rate) to customers targeted for enrollment in PG&E's Smart Thermostat program. PG&E's response to Question 20 also indicated that, pending approval by the Energy Division (ED), residential customers would receive an energy efficiency rebate for installation of a qualifying thermostat and would be eligible for an additional DR incentive if they enroll in SmartRate and sign up for Automated Demand Response. Only customers in inland climate zones 2, 4, 11, 12, 13<sup>13</sup> will qualify for the incentives in order to target the greatest potential peak load shed. All customers who are eligible for SmartRate in these climate zones qualify for the Smart Thermostat incentive, including low income and hard to reach customers. To encourage adoption across all communities PG&E will utilize Community Based Organizations to assist in outreach to the hard to reach communities with strategies and messaging targeted for those specific audiences. Because SmartRate is not dispatchable by location, there is no plan to solely focus on customers that yield high avoided T&D cost in the near future. However. targeted marketing can be explored to encourage program uptake in high impact areas.

#### **Question 37**

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Do you propose any pilot programs to measure customer load reduction and the effectiveness of enabling technologies? If so what are some of the research questions and objectives of these pilot programs? What is your proposed timeline for implementing these pilot programs?

#### **Response to Question 37**

In its February 28, 2014 testimony, PG&E is proposing a pilot that would measure customer load reduction and the effectiveness of enabling technologies under residential TOU. In addition, a Home Area Network (HAN) Demand Response Integration Project is being piloted this summer (see Advice Letter 4119-E-A approved by ED by letter dated April 8, 2013).

The Smart Thermostat pilot program is using the California Energy Commission's (CEC) California Building Climate Zones, defined by CEC's Systems
Assessment & Facilities Siting Division: See <a href="https://www.energy.ca.gov">www.energy.ca.gov</a> or call map line 916-654-4182.

As described in its February 28, 2014, testimony, PG&E's proposal is for a pilot to measure customer load reduction and the effectiveness of enabling technologies beginning in 2015, concluding with a report in 2017. The pilot's objective would be to provide information necessary to evaluate whether sustainable load shifting/reductions can be achieved only through a default approach at a reasonable cost and be acceptable to customers, or whether optional TOU could provide comparable results. The effectiveness of enabling technologies to engage customers and produce load reduction would be included in the pilot.

The key outstanding questions that need to be addressed before adoption of a default, rather than opt-in, approach to transitioning residential customers to a TOU rate plan for California IOUs, include:

- What are the costs of marketing outreach of each approach relative to the benefits in peak reduction, customer satisfaction, etc.?
- What is the potential for load impacts over time of each approach?
- What is the best TOU rate design for engaging customers (number of periods, length of peak period, price ratio)?
- What is the range and cost of enabling technologies that would improve customer engagement when included in each approach?
- What is the impact on customer engagement of each approach?
- How applicable are the Sacramento Municipal Utility District default TOU and other pilot results to PG&E's very large, unique and heterogeneous service territory?

PG&E proposes that the pilot should include approximately three rate design structures, be conducted in multiple climate zones, estimate load impacts over two years, evaluate the impact of enabling technology, and include enough customers to provide statistically significant results by treatment type. The outline of the pilot design is as follows:

Timeframe: 24 months

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- Variables could include:
  - Opt-in vs. default approach
- Rate Structure Simplicity, (Number of peak hours, Number of peak periods, and Summer vs. Winter pricing differentials)
  - Presenting baseline as two tiers versus a "baseline credit"

- Ratio of peak to off-peak prices
  - Enabling Technology

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- Relative effectiveness of offerings such as In-Home Display, Smart
   Phone App, Simple High/Low Price Magnet
- Outreach Strategy (scalable to service territory)
  - Minimal (single mailer with reference to website), Low-Cost, High-Touch
  - Media such as radio, direct mail, email campaigns
  - Tactics such as number of touches, personalized usage/bill updates
- Sample appropriately sized to address:
  - CARE/non-CARE
  - Climate Zones
  - Small/Medium/Large energy users

Costs for the TOU pilot are expected to be in the range of \$15 to \$20 million, subject to the final pilot design.

Regarding the HAN Demand Response Integration Project, per PG&E Advice Letter 4119-E-A, this project is already scheduled to be piloted this summer per the parameters below, starting in June 2014 and ending in December 2014:

PG&E proposes to build upon the HAN infrastructure developed under SmartMeter™ Upgrade Decision 09-03-026 to create and communicate load control signals, such as price signals and Demand Response (DR) event notification messages that can expand DR opportunities for residential and small and medium business (SMB) customers. The HAN platform, used in conjunction with third party devices, may help customers effectively manage their response to time-varying electric rates by reducing or shifting load. This effort will initially target customers on existing DR programs for residential and small business customers (i.e., SmartRate and SMB Peak Day Pricing customers). In light of the evolving role of the utility in the DR marketplace, PG&E is prioritizing the implementation of notification and pricing signals to the premise, whereby a customer can program an automated response, over utility direct load control signals where the utility determines the device response (e.g., switching a device on/off or ramping a device temperature). By implementing signals to the premise, customers can choose manual or automated actions in response to the signals and

- have full control over how to respond to balance cost savings against convenience.
  - Upon successful completion of the enhancements to the IT infrastructure, PG&E will use these systems to validate the enhanced HAN capabilities. This pilot evaluation project will involve up to 2,000 residential and small business customers with a variety of HAN devices that can be responsive to load control signals. This limited scale roll out will be facilitated through the project's User Acceptance Testing period and will enable PG&E to identify issues, obtain feedback from its customers, and evaluate the effectiveness of the solution before offering these capabilities more broadly to the larger customer base. The feedback and results will be used to enhance the HAN platform before making the load control signals (pricing and event notification) available to all qualifying customers in 2015. The systems developed as part of the HAN-DR Integration project will be scalable to support customer demand for these capabilities beyond the 2014 timeframe. The pilot results will be used to inform the development of a future HAN-DR program offering.

#### **Question 38**

Should the Commission establish a parallel phase in this proceeding to address particular aspects of Customer Communication, Outreach and Education, and Technology that are best addressed outside of Phase 1? For example, should co-ordination of TOU rollout with demand response and energy efficiency outreach be considered in a separate phase? If yes, which topics would you propose get addressed in a parallel phase and what should be expected results of that phase?

#### **Response to Question 38**

Yes. The Commission should promptly establish a parallel phase in this proceeding or separate proceeding to review and approve an appropriate, reasonable level of utility expenditures for Customer Communication, Outreach and Education, and Technology, as well as cost recovery for PG&E's proposed pilot to address residential default TOU and adopt cost recovery as described in PG&E's Phase 1 proposal and the response to Question 37. In the interim, the Commission should approve PG&E's request for a memorandum account to track and record incremental costs for Customer Communication, Outreach and

Education, and Technology that PG&E incurs beginning in 2014 to prepare for and implement customer outreach and education and related billing and customer information system changes including PG&E's proposed pilot. Regarding the example posed in the question, coordination of TOU outreach with demand response and energy efficiency does not require a separate phase of this proceeding.

A result in this cost recovery phase of this proceeding should include adoption of PG&E's proposed pilot as well as an incremental revenue requirement for 2014 through 2016 for Residential Rate Reform incremental costs for overall communications, outreach and education, and technology, as well as pilot costs. PG&E plans to address in its 2017 GRC Phase 1 any forecast revenue requirements for default residential TOU and other customer-related costs anticipated for 2017-2018.

PG&E believes co-ordination of TOU rollout with demand response and energy efficiency outreach need not be considered in a separate phase.

PG&E's education and outreach strategy, presented in this document, will include educating the most impacted customers to drive awareness of the rate change and will include ways to help them manage their bills through Energy Efficiency Audits and "My Energy Home Checkup," as well as customized tips based on seasons, opt-in programs such as SmartRate or SmartAC, energy savings assistance, and balanced payment plan programs.