BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State's Resources Planning Needs and Operational Requirements.	Rulemaking 13-09-011 (Filed September 19, 2013)

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-E) DEMAND RESPONSE PROGRAM PROPOSALS FOR 2015 AND 2016

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) requests approval of its 2015-2016 Demand Response Programs and Budgets (Proposal). PG&E's Proposal is submitted in accordance with the *Assigned Commissioner and Administrative Law Judge's Ruling Providing Guidance For Submitting Demand Response Program Proposals*, dated January 31, 2014 (Ruling) and the *Decision Approving Two Year Bridge Funding for Demand Response Programs*, D.14-01-004, dated January 24, 2014 (Decision).

Below, PG&E provides its proposals for program revisions and budgets for 2015 and 2016. PG&E's two-year budget request of $92,197,744 is summarized in Table 5 and described in detail in Attachment A.

PG&E also responds to the California Public Utilities Commission's (Commission's) request for additional information in Section 4 of the Ruling as follows: (1) 2015-2016 Pilot Proposals, Section II.E; (2) The Utility Reform Network's (TURN's) spending analysis, Section II.F; and (3) PG&E's General Rate Case (GRC) Partial Settlement Agreement, Section II.G.2.

II. PG&E'S PROPOSALS

PG&E will continue to operate in 2015-2016 all demand response (DR) programs in its current portfolio at their current capacity levels and proposes limited program revisions

consistent with the Decision's instructions to ensure program continuity while the Commission determines the enhanced role of DR in meeting California's resource planning needs and operational requirements. Most of the proposed revisions are intended to improve program performance and improve the customer experience, while others are simply providing tariff clarifications to ease operations and provide greater transparency to participating customers. All the proposals are implementable within 90 days of the date of a final Commission decision and can be completely implemented by December 31, 2014.

A. PG&E-Managed Programs

1. Base Interruptible Program (BIP)

The BIP is a reliability-based program for large commercial, industrial, and agricultural customers. Currently, PG&E may dispatch the program when the California Independent System Operator (CAISO) has publicly issued a Warning notice and has determined that a Stage 1 emergency is imminent; during a Stage 1, Stage 2 or Stage 3 emergency; based on its forecasted system conditions and operating procedures, or in the event of a transmission system contingency. Customers are given at least thirty minutes notice prior to the curtailment period. The proposed changes for BIP, none of which impact cost effectiveness, are outlined in Table 1.

Table 1 - Proposed Changes to BIP in 2015-2016

Line No.	Program Recommendation	Purpose	CE Impact[(a)]
1	Clarify that the program can be dispatched by either the CAISO or PG&E based on pre-defined groups of one or more customers to address transmission and distribution reliability needs.	Clarification	No
2	Standardize language to clarify that the performance penalties are calculated on a 15-minute interval.	Clarification	No
3	Standardize langue to replace the term "penalty" with "excess energy charge".	Clarification	No

[(a)] Cost effectiveness requirements as determined by D.12-04-045.

2. Demand Bidding Program (DBP)

The DBP is a voluntary price-responsive program in which non-residential customers submit bids specifying the amount of load reduction they can provide during a DR event in exchange for a fixed incentive rate. Currently, PG&E issues a day-ahead notification of a DBP event, which may be triggered by the following events: 1) a CAISO day-ahead load forecast greater than 43,000 MW, 2) when CAISO issues an Alert notice or is expected to issue a Warning or higher for the next day, 3) when the forecasted temperature for a Load Zone is higher than the threshold for that Load Zone, 4) when PG&E forecasts that generation resources or electric system capacity may not be adequate. The proposed changes for DBP, none of which impact cost effectiveness, are outlined in Table 2.

Table 2 - Proposed Changes to DBP in 2015-2016

Line No.	Program Recommendation	Purpose	CE Impact[(a)]
1	Clarify that the program can be dispatched by either the CAISO or PG&E based on pre-defined groups of one or more customers to address local transmission and distribution reliability needs.	Clarification	No
2	Clarify that PG&E may call two (2) test events per year per customer at its own discretion if it deems necessary.	Clarification	No
3	Add the ability for PG&E to remove non-performing customers from the DBP program.	Statewide consistency	No
4	Specifically state that PG&E can dispatch an event at its discretion.	Clarification	
5	Clarify that if another DR program, in which a DBP customer is dually enrolled, or a rotating outage is triggered when a DBP event is in progress, the other DR program will supersede the DBP event and no DBP incentive payments will be applied for those overlapping event hours.	Clarification	No

6	Expand the bidding window to begin upon receipt of notification up to 4:00 p.m. the day the event notice is issued (currently, 12 Noon-3:00 pm).	Improve customer experience to increase program performance	No
7	Expand the dispatch window to 6:00 a.m. – 10:00 p.m. (currently, 12 Noon-8:00 pm). PG&E may call an event within the window for a minimum of two hours and a maximum of eight hours. Only one event may be dispatched in a given day.	Increase dispatch potential of resource	No

[(a)] Cost effectiveness requirements as determined by D.12-04-045.

3. SmartAC™

The SmartAC program is an air conditioning direct load control program for residential and small and medium business (SMB)[1/] customers. PG&E operates the program May 1 through October 31. Customers are given a choice between two different direct load control devices that operate on a one-way paging system: Programmable Communicating Thermostats (PCT) and Load Control Receivers (LCR or switch). These devices control air conditioning (AC) compressors using sophisticated "cycling" strategies which perform calculations to reduce energy use based on different factors including run-time profiles of the customer. In addition to cycling, PCTs have the ability to perform temperature ramping, which increases the temperature in a customer's premise over a designated period of time during a curtailment event. Curtailment events are limited to a maximum of 100 hours per season and six hours per event. Operated under Rate Schedules E-RSAC and E-CSAC, PG&E may activate devices based on system-peak loading conditions or transmission or distribution system loading conditions. Additionally, PG&E may, on a limited basis, conduct operational tests on customer devices. The proposed changes for SmartAC, none of which impact cost effectiveness, are outlined in Table 3.

1/ D.12-04-045 closed SmartAC™ to new SMB customer enrollments; however, existing SMB customers may continue to participate in the program.

Table 3 - Proposed Changes to SmartAC™ in 2015-2016

Line No.	Program Recommendation	Purpose	CE Impact[(a)]
1	Enable the program to be dispatched during a Warning, Stage 1, Stage 2, or Stage 3 Emergency.	Clarification	No
2	Enable the program to be dispatched based on forecasted system conditions and CAISO operating procedures.	Clarification	No
3	Clarify that the program can be dispatched by either the CAISO or PG&E based on pre-defined groups to address transmission and distribution reliability needs.	Clarification	No

[(a)] Cost effectiveness requirements as determined by D.12-04-045.

B. Aggregator- Managed Programs

1. Capacity Bidding Program (CBP)

On December 24, 2013, PG&E submitted Advice Letter 4332-E, in which it outlined CBP program improvements that PG&E requests to be implemented for the 2014 DR season. AL 4332-E was approved February 25, 2014. PG&E does not propose additional changes, but would request for those identified in the Advice Letter to continue through the 2015-2016 period.

2. Aggregator Managed Portfolio (AMP)

PG&E's proposed improvements to the AMP program are outlined in the Joint Petition for Modification (Joint PFM) of Commission Decision (D.) 13-01-024, which would modify the existing 2013-2014 agreements, and are supported by multiple parties.[2/] On February 27, 2014, the Commission approved the AMP amendments (D. 14-02-033). PG&E requests Commission approval to extend the AMP agreements to add two additional years under the same terms and conditions approved in D. 14-02-033 without a further compliance filing, if the counterparties agree to the extensions.

2/ Parties' Comments and Reply Comments to the ALJ Proposed Decision Approving Two-Year Bridge Funding for Demand Response Programs. Parties include PG&E, Office of Ratepayer Advocates (ORA), and Joint DR aggregators including EnerNOC, Inc., Johnson Controls, Inc., and Comverge, Inc.

C. Technology Programs

1. Automated Demand Response (AutoDR)

PG&E implemented several changes [3/] to AutoDR beginning in 2013, consistent with the findings and recommendations from the draft[4/] Process Evaluation and Load Impact Evaluation California Statewide Automated Demand Response Programs; findings are based on the 2011-2012 program participation. The proposed changes for AutoDR, none of which impact budget or cost effectiveness, are outlined in Table 4.

Table 4 - Proposed Changes to AutoDR in 2015-2016

Line No.	Program Recommendation	Purpose	CE Impact[(a)]
1	Increase program education to vendors and customers to foster understanding of AutoDR benefits.	Improve customer experience to increase program performance	No
2	Streamline AutoDR application process to make it easier to customers to apply for AutoDR incentive.	Improve customer experience to increase program performance	No
3	Increase outreach efforts to sign up more lighting projects.	Increase reliability of resource	No
4	Provide technical assistance to existing ADR customers.	Improve participation and persistence	No

[(a)] Cost effectiveness requirements as determined by D.12-04-045.

2. Permanent Load Shifting (PLS)

In D. 12-04-045, the Commission approved PG&E's PLS proposal for 2012-2014, subject to further Energy Division review. The IOUs' PLS advice letters were filed in January 2013, with further program revisions required via Resolution E-4586 on May 9, 2013. A second,

3/ In its 2012-14 Applications, the utilities have recommended changes to improve AutoDR customer performance, however, D.12-04-045 delayed implementation of these changes until 2013. These changes include (a) dividing the incentive payment to 60% upon project completion and the remaining 40% after one year to be adjusted based on a customer's actual performance on a DR program, and (b) increasing the requirement to be enrolled in a DR program from one to three years.

4/ Draft report was shared with stakeholders in December 2013.

required advice letter regarding further program modifications was approved by the Energy Division on September 5, 2013[5/]. The statewide PLS program was subsequently rolled out by the IOUs in the summer and fall of 2013. As a result of the delay in beginning this program, no incentive payments have been made and the customer interactions are in the early stages. PG&E proposes to carry over the PLS budget into 2015-2016 with the funds approved for 2012-2014. PG&E believes that this amount is sufficient for customer incentives, which are paid upon project completion. Thus, PG&E does not seek additional incentives and, instead, seeks only an administrative budget to continue the program implementation in the 2015-2016 period.

D. Support for Demand Response Direct Participation and Rule 24

On February 18, 2014, PG&E submitted via a Tier 1 Advice Letter 4361-E, modifications to Direct Participation Demand Response Rule 24 and Related Documents in Compliance with Resolution E-4630, and requested this Tier 1 advice filing to become effective on March 1, 2014. Pursuant to D. 12-11-025, PG&E plans to file a cost recovery application upon approval of Electric Rule 24. Given that the cost recovery application process and subsequent systems implementation take time, PG&E's manual support for Rule 24 implementation will be limited in the interim.

E. 2015-2016 Pilots

The Ruling requests comments regarding whether pilot funds should be earmarked for the staff-proposed pilots[6/] in 2015 and 2016 (Ruling, p. 5, question 3.) PG&E reiterates its support of the Staff's objectives; however, it has concerns on whether these specific pilots are the best approach to achieve the goals.[7/] PG&E proposes that the pilot funds be spent on the pilots described below. Several of the pilots below are specifically aligned with the staff proposals for pilots attached to R.13-09-011. Two pilots proposed by PG&E are in addition to the ones identified by Commission staff.

5/ Staff Disposition of PG&E AL 4239-E, SDG&E AL 2489-E, and SCE AL 2913-E (Sept. 5, 2013).
6/ R.13-09-011, Attachment A
7/ PG&E Comments to R. 13-09-011, Question 2 (Oct. 21, 2013).

1. Testing Demand Response in the CAISO Market

The first goal is to "Test the participation of demand response in the CAISO wholesale energy market" by expanding PG&E's Intermittent Resource Management (IRM2) pilot to Direct Access customers and aggregators who express interest in direct participation."[8/] PG&E is currently operating its IRM2 pilot and already provides DR resource owners the opportunity to enter the CAISO energy market and offer day-ahead energy. IRM2, as currently operating, allows Direct Access customers, Community Choice, and aggregators to participate. During the 2015-2016 bridge period, PG&E would like to evolve the IRM2 pilot into a ***Supply Side DR Pilot*** by expanding the CAISO services available to DR participants beyond the current day-ahead energy. In addition, PG&E proposes to expand the scope of customer segments, who may participate, from just the large non-residential customers to the mass market. The Supply Side DR Pilot will allow third parties, e.g., aggregator, customers or technology vendor, to realize the value of dispatchable demand. Pursuant to D. 12-04-045 Ordering Paragraph (OP) 80, PG&E describes its Supply Side DR Pilot Plan in Attachment B. PG&E believes this pilot is consistent with the IRM2 pilot goals described in the "Staff Proposal for Demand Response Pilots in 2015, attached to R.13-09-011.

2. Future Grid Needs

Since the Commission intends to use the bridge period to determine and enhance the role of demand response in meeting California's resource planning needs and operational requirements[9/], it is important to identify the future needs of the grid. With California's Renewable Portfolio Standard (RPS) goal of 33%, the concern with excess supply is relevant. In

8/ R.13-09-011, Attachment A
9/ D.14-01-004

the spirit of addressing future needs of the grid, PG&E proposes the Pilot to Assess Potential for DR to Address "Excess Supply" Situations, for which the Pilot Plan is described in Attachment C.

3. Behavioral Programs

An additional goal of the staff-proposed pilots is to "Test the effectiveness of the following strategies at improving customer response to time-of-use and critical peak pricing rates"[10/]. As noted in its response[11/], PG&E has already transitioned a substantial number of its small and medium business (SMB) customers to default time-of-use (TOU) rates and is already implementing pilots and other activities to address the objectives of the Behavior Programs Pilot. This pilot is aligned with the staff's proposal to pilot to increase customer responsiveness to dynamic electricity rates" and "for behavior programs for customer on dynamic rates". Since PG&E already has behavior pilots that are funded elsewhere and technology assessments designed to help SMB customers' ability to respond to dynamic rates, PG&E does not propose to implement the staff's behavior pilot and is not requesting funds for the PG&E behavior pilots in this proceeding.

4. Demand Response and Transmission and Distribution

Since the ultimate goal of this Rulemaking is "to enhance the role of demand response programs in meeting the state's long-term clean energy goals while maintaining system and local reliability", PG&E proposes the ***Extension of Transmission & Distribution Pilot (T&D Pilot 2)***. As part of the 2012-14 T&D Pilot[12/], PG&E is studying, interviewing, and demonstrating the integration of DR resources in selected areas as part of the electric T&D organizations planning and operation systems and processes. The T&D Pilot 2 aims to continue these efforts to determine how DR can be implemented beyond just a summer emergency resource, but in all seasons. The Pilot Plan is described in Attachment D.

10/ R.13-09-011, Attachment A.
11/ PG&E Comments to R. 13-09-011, Question 2.
12/ PG&E Pilot Plan as described in Advice Letter 4077-E and amended in 4077-E-B.

PG&E has verified that its pilot proposals do not duplicate projects approved in PG&E's EPIC applications. Prior to filing its first EPIC triennial investment plan (2012-2014) application (A.12-11-003), PG&E reviewed active and proposed projects to confirm there was no duplication of projects. Prior to filing its second EPIC triennial investment plan (2015-2017), due May 1, 2014, PG&E will again review active and proposed Emerging Technologies and EPIC projects. PG&E will continue to closely monitor and evaluate these programs.

F. 2012 – 2014 Portfolio Expenditures

The Ruling requests the IOUs to explain "why they each only spent less than 25 percent of a three-year budget over the course of 20 months and why this unspent funding should be made available to them in the 2015-2016 demand response program bridge funding" (Ruling, pp. 4-5, question 2). The Ruling also addresses TURN's earlier proposal to reduce the approved budgets for demand response for 2015-2016 because the IOUs did not fully spend their 2012-2014 budgets. PG&E respectfully disagrees with TURN's suggestion that the IOUs' failure to spend their entire authorized budget indicates that an across the board budget reduction is merited for 2015-2016 for several reasons.

First, D.12-04-045, which approved the IOUs' DR portfolio budgets for 2012-2014, was delayed until April 2012. PG&E did not have an approved budget until April 2012; accordingly, PG&E very reasonably reduced its spending on DR programs. The ACR referenced by TURN[13/] did not authorize IOUs' cost recovery or a rate component for DR. It only allowed the IOUs to continue to record expenses in their respective DR accounts. As a result, PG&E maintained its programs but did not pursue new projects or began implementation of its enabling technology programs, both of which comprise a large proportion of the 2012-14 authorized budgets, until the Commission issued the portfolio decision in April 2012. In addition, at the time, the costs

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13/ *Assigned Commissioner's Ruling Authorizing Utilities To Continue Demand Response Programs In 2012 Pending A Decision In Application 11-03-001 et. al,* (Dec. 28, 2011).

associated with PG&E's SmartAC Program was recorded in a different balancing account and was not explicitly noted in the ACR.

Second, even after the D. 12-04-045 was issued in April 2012, it called into question the cost effectiveness of several DR programs, including the PLS program, and put on hold the implementation of all Pilots and the HAN-DR Integration project pending advice letter approval from the Commission. These programs all have large budgets, including $15 million for PLS and approximately $12 million for HAN. Since the resolution of the Advice Letters addressing the above did not occur until the second quarter of 2013, the budget approved for these programs largely went unspent for the first two years, other than internal costs required to maintain the program.

Finally, even if D.12-04-045 had been approved prior to April 2012, the typical program spending is slow in the beginning of the cycle. This is largely due to: (1) costs associated with EM&V do not occur until towards the end of the first year when evaluations of the program season begin, and (2) incentives for enabling technologies, which are a large amount (approximately $34M), are not paid until the customer completes the project. This is exacerbated by the new program rule[14/] under which the customer is paid 60% of the AutoDR incentive upon project completion, with the remaining incentive amount subject to performance in a complete DR season.

G. PG&E's Proposed Budget For 2015-2016

PG&E's budget request of $92,197,744 is shown in Table 5 and is described in detail in Attachment A. This amount excludes the associated burden benefits described in Section II.G.2. PG&E's proposed budget would enable it to retain the current amount of DR capacity in PG&E's portfolio. In addition to operating the BIP, CBP, AMP, DBP, and SmartAC™, PG&E's DR budget provides for the operation of Peak Day Pricing (PDP) and SmartRate™ events.

14/ D.12-04-045 OP 58

Table 5 - PG&E's 2015-2016 Budget Request

	Total Authorized for 2012-2014 (D.12-04-045)	Total Authorized for 2013-2014 (two-thirds of 2012-2014 after adjustments)	2015-2016 Bridge Funding Request
Category 1 - Reliability Programs			
Base Interruptible Program	$666,349	$444,455	$444,455
Optional Binding Mandatory Curtailment/Scheduled Load Reduction	$413,532	$275,826	$275,826
Category 1 Total	**$1,079,881**	**$720,281**	**$720,281**
Category 2 - Price-Responsive Programs			
Demand Bidding Program*	$3,216,000	$1,067,200	$1,067,200
Capacity Bidding Program*	$11,563,485	$4,737,930	$4,737,930
PeakChoice*	$1,750,000	$0	$0
AC Cycling: Smart AC	$19,353,335	$12,908,674	$12,908,674
Category 2 Total	**$35,882,820**	**$18,713,805**	**$18,713,805**
Category 3 - DR Provider/Aggregator Managed Programs			
AMP	$1,187,700	$792,196	$792,196
Category 3 Total	**$1,187,700**	**$792,196**	**$792,196**
Category 4 - Emerging & Enabling Technologies			
Auto DR	$26,297,459	$17,540,405	$17,540,405
DR Emerging Technology	$3,749,238	$2,500,742	$2,500,742
Category 4 Total	**$30,046,697**	**$20,041,147**	**$20,041,147**
Category 5 – Pilots*			
IRR Phase 2	$2,458,336	$1,639,710	$2,458,336
T&D DR	$2,458,336	$1,639,710	$1,622,500
Plug-in Hybrid EV/EV (incl. HAN-EV)	$3,000,000	$2,001,000	$0
Pilot to Assess Potential for DR to Address "Excess Supply" Situations	$0	$0	$1,100,000
Category 5 Total	**$7,916,672**	**$5,280,420**	**$5,180,836**

Category 6 - Evaluation, Measurement and Verification			
DRMEC*	$14,520,981	$9,685,494	$8,372,159
DR Research Studies	$1,200,000	$800,400	$0
Category 6 Total	**$15,720,981**	**$10,485,894**	**$8,372,159**
Category 7 - Marketing, Education and Outreach			
Statewide Marketing*	$3,500,000	$0	$0
DR Core Marketing & Outreach	$13,000,000	$8,671,000	$8,671,000
Education and Training	$771,993	$514,919	$514,919
Category 7 Total	**$17,271,993**	**$9,185,919**	**$9,185,919**
Category 8 - DR System Support Activities			
InterAct/DR Forecasting Tool	$14,407,887	$9,610,061	$9,610,061
DR Enrollment & Support	$15,787,400	$10,530,196	$10,530,196
Notifications	$7,427,715	$4,954,286	$4,954,286
DR Integration Policy & Planning	$3,893,342	$2,596,859	$2,596,859
Category 8 Total	**$41,516,344**	**$27,691,401**	**$27,691,401**
Category 9 - Integrated Programs and Activities (Including Technical Assistance)*			
Technology Incentives - IDSM	$3,538,000	$0	$0
PEAK	$560,000	$0	$0
Integrated Marketing & Outreach	$304,500	$0	$0
Integrated Education & Training	$61,000	$0	$0
Integrated Sales Training	$76,000	$0	$0
Integrated Energy Audits	$1,264,000	$0	$0
Integrated Emerging Technology	$440,000	$0	$0
Category 9 Total	**$6,243,500**	**$0**	**$0**
Category 10 - Special Projects			
DR-HAN Integration (excl. HAN-EV)*	$20,020,000	$11,941,000	$0
Permanent Load Shifting*	$15,000,000	$10,000,000	$1,500,000
Category 10 Total	**$35,020,000**	**$21,941,000**	**$1,500,000**
TOTAL DR Portfolio	**$191,886,588**	**$114,852,064**	**$92,197,744**

* Adjustments to category, program, and pilot costs are described in Section II.G.1

1. Drivers for changes in the 2015-2016 Budget

As provided in the Ruling, PG&E's proposed program budgets do not exceed the amount previously approved for 2013-2014 by the Commission in Decision 12-04-045. PeakChoice[15/], Statewide Marketing[16/], and IDSM[17/], are excluded from the proposed 2015-2016 budget. Furthermore, PG&E's budget request represents a decrease from the 2013-2014 annual budget approved in D.12-04-045 because: (1) EM&V costs have been reduced[18/], (2) the program budgets for DBP and CBP were reduced[19/], (3) the Home Area Network (HAN) project will become operational[20/], and (4) the PLS Program was delayed and thus PG&E has a sufficient incentive budget to carry over into 2015-2016, as discussed in Section II.C.2.

While the Pilot to Assess Potential for DR to Address "Excess Supply" Situations is new for the bridge period, the budget for the entire Pilot category in 2015-2016 remains within two-thirds of the authorized 2012-14 budget due to the exclusion of the EV Pilot and the reduced funding request for the T&D pilot extension.

2. Burden Benefits and 2014 GRC I Partial Settlement Agreement

The Ruling requests PG&E to specify "what budget categories would be impacted and what would the impact be in dollar amounts" if its employee burden benefits rate component is moved from the General Rate Case (GRC) to PG&E's demand response program budgets (Ruling, p. 4, question 1). As noted, DREBA would be increased to include amounts attributable to burden benefits if the Commission approves a Partial Settlement Agreement filed in PG&E's

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15/ D.12-04-045 OP 39 ordered the closure of the PeakChoice program by December 31, 2012.
16/ D.12-04-045 OP 19 ordered funding for 2012 only.
17/ D.14-01-004 excluded IDSM funding.
18/ Reduction attributed to (1) closure of PeakChoice, which no longer needs a program evaluation, and (2) savings from improved SmartAC™ evaluation techniques. Furthermore, PG&E does not plan to request the $1.2 million reserved for the Commission's Executive Director since unspent funds may be carried over as per D.12-04-045 OP 72.
19/ The DBP admin budget and the CBP incentive budget were reduced in order to maintain a cost-effective program as described in Advice Letter 4164-E.
20/ On April 8, 2013, AL 4119-E/E-A decreased the HAN Integration budget from $20,020,000 to $11,941,000. The HAN integration project will be completed within its authorized budget. Costs to operate HAN are included in its DR System Support Activities budget (Category 8) for 2015-2016.

GRC.[21/] PG&E provides the estimated amount of the burden benefits associated with each budget category in Table 6; however, this is illustrative only as the Partial Settlement Agreement provides that the amounts of the burden benefits will be as determined by the Commission in the GRC decision.

Table 6 - PG&E's Annual Burden Benefits Impact to DR Budget Categories

DR Budget Category	Annual Burden Benefits
Category 1 - Reliability Programs	$51,625
Category 2 - Price-Responsive Programs	$261,389
Category 3 - DR Provider/Aggregator Managed Programs	$48,485
Category 4 - Emerging & Enabling Technologies	$122,324
Category 5 – Pilots	$98,051
Category 6 - Evaluation, Measurement and Verification	$397,462
Category 7 - Marketing, Education and Outreach	$243,116
Category 8 - DR System Support Activities	$1,336,864
Category 9 - Integrated Programs and Activities (Including Technical Assistance)*	$0
Category 10 - Special Projects	$71,684
TOTAL	**$2,631,000**[22/]

21/ *Motion for Approval of Partial Settlement Agreement Between and Among Pacific Gas and Electric Company, The Utility Reform Network, and The Marin Energy Authority* (A.12-11-009). (Sept. 6, 2013).

22/ The estimate of the burden benefit differs from the estimate in the Partial Settlement Agreement in that PG&E subsequently discovered that the estimates in the Partial Settlement Agreement inadvertently included payroll taxes that were attributable to another department. The estimate was also updated based on PG&E's October 2013 GRC Update. The final amount would be subject to true-up based on the final GRC decision.

H. Cost-Effectiveness

No revised cost-effectiveness (CE) calculation and result is necessary for two reasons. First, PG&E's proposed 2015-2016 DR programs budget of $92,197,744 is less than the 2013 and 2014 DR budget of $114,852,064, which is two-thirds of the authorized budget in D.12-04-045 less those program budgets approved for 2012 only.[23/] Second, none of PG&E's proposed 2015-2016 non-budget revisions to DR programs—including load impacts, hours of availability or dispatch triggers—impact any of the avoided cost assumptions[24/] used in PG&E's previous cost-effectiveness analysis.[25/] Under these circumstances, because the benefit or cost calculations of PG&E's most recent DR CE analysis are not impacted by either the proposed DR program revisions or the proposed budgets contained herein, the Ruling does not require a new cost-effectiveness demonstration.[26/]

I. Cost Recovery

PG&E proposes that the annual demand response revenue requirements for approved programs continue to be collected from all distribution customers through the use of the current balancing account mechanism approved in previous Commission decisions related to demand response. Program expenses will be recovered via the two-way Distribution Revenue Adjustment Mechanism (DRAM), as approved in D.12-04-045 and tracked via the one-way Demand Response Expense Balancing Account (DREBA). PG&E proposes to continue the two-way balancing account treatment of event-based incentives, as the Commission approved in Decision 09-08-027. Finally, PG&E proposes to continue to recover the costs of the AMP

23/ As modified by Advice Letter 4164-E and AL 4119-E/E-A.
24/ Or, to the extent there is an impact, it would potentially improve the CE result.
25/ PG&E's most recent DR Reporting Template was submitted in its Advice Letter 4164-E, "Resubmitted Cost Effectiveness Analyses of Pacific Gas and Electric Company's Capacity Bidding Program and Demand Bidding Program in Compliance With Decision 12-04-045." PG&E's DR Reporting Template was prepared per Energy Division's May 11, 2012, guidance in accordance with Ordering Paragraph 83 of D.12-04-045.
26/ Ruling, p. 3.

contract incentives in the Energy Resource Recovery Account (ERRA) including the proposed AMP amendments extending the term through 2016.

III. CONCLUSION

For the reasons set forth above, PG&E respectfully requests the Commission to approve PG&E's program proposals and proposed budget for Demand Response Programs for 2015 and 2016.

Respectfully Submitted,

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Dated: March 3, 2014

Proposed DR 2015-2016 Bridge Funding

	Total Authorized for 2012-2014 (D.12-04-045)	Adjustments prior to taking 2/3 for 2013-2014 proportion	Notes	Total Authorized for 2013-2014 (two thirds after adjustments)	Further adjustments to bridge funding	Notes	2015-2016 Bridge Funding Request
Category 1 - Reliability Programs							
Base Interruptible Program	$666,349			$444,455			$444,455
Optional Binding Mandatory Curtailment/Scheduled Load Reduction	$413,532			$275,826			$275,826
Category 1 Total	**$1,079,881**			**$720,281**			**$720,281**
Category 2 - Price-Responsive Programs							
Demand Bidding Program*	$3,216,000	-$1,616,000	AL 4164-E	$1,067,200			$1,067,200
Capacity Bidding Program*	$11,563,485	-$4,460,141	AL 4164-E	$4,737,930			$4,737,930
PeakChoice*	$1,750,000	-$1,750,000	Closed				$0
AC Cycling: Smart AC	$19,353,335			$12,908,674			$12,908,674
Category 2 Total	**$35,882,820**			**$18,713,805**			**$18,713,805**
Category 3 - DR Provider/Aggregator Managed Programs							
AMP	$1,187,700			$792,196			$792,196
Category 3 Total	**$1,187,700**			**$792,196**			**$792,196**
Category 4 - Emerging & Enabling Technologies							
Auto DR	$26,297,459			$17,540,405			$17,540,405
DR Emerging Technology	$3,749,238			$2,500,742			$2,500,742
Category 4 Total	**$30,046,697**			**$20,041,147**			**$20,041,147**
Category 5 – Pilots							
IRR Phase 2**	$2,458,336			$1,639,710	$818,626	Pilot scope expansion	$2,458,336
T&D DR	$2,458,336			$1,639,710	-$17,210	Pilot continuation	$1,622,500
Plug-in Hybrid EV/EV (incl. HAN-EV)	$3,000,000			$2,001,000	-$2,001,000		$0
Excess Supply	$0			$0	$1,100,000	New pilot	$1,100,000
Category 5 Total	**$7,916,672**			**$5,280,420**			**$5,180,836**
Category 6 - Evaluation, Measurement and Verification							
DRMEC	$14,520,981			$9,685,494	-$1,313,336	Cost savings	$8,372,159
DR Research Studies	$1,200,000			$800,400	-$800,400	CPUC-administered funds	$0
Category 6 Total	**$15,720,981**			**$10,485,894**			**$8,372,159**
Category 7 - Marketing, Education and Outreach							
Statewide Marketing*	$3,500,000	-$3,500,000	2012 funding only	$0			$0
DR Core Marketing & Outreach	$13,000,000			$8,671,000			$8,671,000
Education and Training	$771,993			$514,919			$514,919
Category 7 Total	**$17,271,993**			**$9,185,919**			**$9,185,919**
Category 8 - DR System Support Activities							
InterAct/DR Forecasting Tool	$14,407,887			$9,610,061			$9,610,061
DR Enrollment & Support	$15,787,400			$10,530,196			$10,530,196
Notifications	$7,427,715			$4,954,286			$4,954,286
DR Integration Policy & Planning	$3,893,342			$2,596,859			$2,596,859
Category 8 Total	**$41,516,344**			**$27,691,401**			**$27,691,401**
Category 9 - Integrated Programs and Activities (Including Technical Assistance)*							
Technology Incentives - IDSM	$3,538,000	-$3,538,000	2012 funding only	$0			$0
PEAK	$560,000	-$560,000	2012 funding only	$0			$0
Integrated Marketing & Outreach	$304,500	-$304,500	2012 funding only	$0			$0
Integrated Education & Training	$61,000	-$61,000	2012 funding only	$0			$0
Integrated Sales Training	$76,000	-$76,000	2012 funding only	$0			$0
Integrated Energy Audits	$1,264,000	-$1,264,000	2012 funding only	$0			$0
Integrated Emerging Technology	$440,000	-$440,000	2012 funding only	$0			$0
Category 9 Total	**$6,243,500**			**$0**			**$0**
Category 10 - Special Projects							
DR-HAN Integration (excl. HAN-EV)*	$20,020,000	-$8,079,000	AL 4119-E/E-A	$11,941,000	-$11,941,000	Project operational. O&M in Category 8.	$0
Permanent Load Shifting	$15,000,000			$10,000,000	-$8,500,000	Program implementation	$1,500,000
Category 10 Total	**$35,020,000**			**$21,941,000**			**$1,500,000**
TOTAL DR Portfolio	**$191,886,588**	-$25,648,641		**$114,852,064**	-$22,654,320		**$92,197,744**

Extension of Intermittent Resource Management Pilot 2 (will be re-named to Supply Side DR Pilot)

New and innovative program design

New and innovative program design that have not yet been tested or employed

Problem Statement

A specific statement of the concern, gap, or problem that the pilot seeks to address and the likelihood that the issue can be addressed cost-effectively through utility programs

From here on out, the *Intermittent Resource Management Pilot 2* will now be referred to as *Supply Side DR Pilot*.

This pilot will build on the learnings from the 2012-2014 IRM2 pilot as well as new information arising from the CPUC and CAISO on the need for flexible resources.

To date, there are no mechanisms that allow interested DR resource owners (e.g., Direct Customers, Aggregators, etc…) to bid-in their load into the CAISO's wholesale market. PG&E, in 2014, launched the IRM2 Pilot that provided DR resource owners the opportunity to enter the market and offer day-ahead energy. IRM2 was limited not only in the service offerings (Day Ahead energy only) but also the customer segments that can be aggregated. The residential retail sector, and in general the mass market, is an untapped segment that can provide same load balancing relief, particularly when aggregated in mass.

This pilot will also test DR supply side products that are may be able to provide a "flexible ramping" product that will help with the integration of renewables.

The activities of expanding IRM2 (now Supply Side DR) will allow PG&E to unlock and recognize additional value sets to rate payers, the grid, CAISO and DR resource and it can also introduce opportunities to other third party companies.

How the pilot will address DR goal or strategy

Whether and how the pilot will address a DR goal or strategy

The Supply Side DR Pilot will tackle programmatic questions on how to best construct an *avenue* for future DR resources owners to learn how to participate and offer their load flexibility into the CAISO market.

Supply side DR will leverage the base product offering that was part of the 2012 – 2014 IRM2 Pilot. IRM2 provided third party DR resource owners, the ability to bid-in their energy load reduction as Proxy Demand Resource and offered Day Ahead energy.

Entering the 2015 – 2016 bridge, PG&E will open up the Supply Side DR Pilot to include the following services:

CAISO Services	Supply Side DR Pilot – PDR	Time Frame	Program window
Energy Service			
Day Ahead Energy	Yes	2015 - 2016	24 hour availability – Mon-Sun – year round for 2015 - 2016
Real Time Energy	Yes	2015 - 2016	24 hour availability – Mon-Sun – year round for 2015 – 2016
Ancillary Service		2015 - 2016	
Day Ahead Non-Spin	Yes	2015 - 2016	24 hour availability – Mon-Sun – year round for 2015 – 2016
Real Time Non-Spin	Yes	2015 - 2016	24 hour availability – Mon-Sun – year round for 2015 – 2016
Day Ahead Spin	Yes	2015 - 2016	Once available - 24 hour availability – Mon-Sun – year round for 2015 - 2016
Real Time Spin	Yes	2015 - 2016	Once available - 24 hour availability – Mon-Sun – year round for 2015 - 2016
Day Ahead Regulation Up	N/A	N/A	N/A
Real Time Regulation Up	N/A	N/A	N/A
Day Ahead Regulation Down	N/A	N/A	N/A
Real Time Regulation Down	N/A	N/A	N/A

Supply Side DR will also open the pilot up to third parties that aggregate retail residential customers.

- 2012 – 2014 IRM2 allowed retail non-residential customers;
- 2015 – 2016 Supply Side DR will allow retail non-residential and residential customers**.

* Eligibility is subject to the fulfillment of existing CAISO's market rules for Proxy Demand Resource. Offering energy services must meet the minimum load reduction of 100 kW resource size. Offering ancillary services spinning and non-spinning reserves must meet the minimum load reduction of 500 kW resource size

** Residential aggregation will be initially limited to providing Day Ahead energy. During this phase, PG&E will continue to evaluate the feasibility of residential aggregation to provide additional services outside of Day Ahead energy

Objectives and goals for the pilot

Specific objectives and goals for the pilot

The key objectives of the pilot is to continue the enablement of DR resource owners to bid in the CAISO market and provide services to help balance the grid and to test DR products that may help with renewable integration, particularly for fast ramping. The Pilot allows third parties, whether they are an aggregator or technology vendor, to realize the value of dispatchable demand. More importantly, it prepares PG&E, third parties, and the customers to better understand how to tackle forthcoming issues of renewables integration and adoption of integrating customer side technologies like solar and electric vehicles.

It is still PG&E's intent to have the Supply Side DR Pilot to assist in the design of any current or future DR products that reside in either the retail space or wholesale space. PG&E will work closely with the CAISO, IOUs, and various DR resource owners (i.e., direct customers, aggregators, technology vendors) to construct cost-effective solutions that would integrate dispatchable DR resources and assist with future grid needs; whether that be load consumption, load curtailment or continuous energy management.

Budget and timeframe

A clear budget and timeframe to complete the pilot and obtain results within a portfolio cycle. Pilots that are continuations of pilots from previous portfolios should clearly state how the continuation differs from the previous phase

Pilot is requesting $2,458,336 over the course of three year; 2015 – 2016.

(in millions)	2015	2016
IRM2 Pilot	$ 1.284	$1.174

Budget Request: Supply Side DR			**$ 2,458,336.00**
Program Administrator		$ 300,000.00	
Vendors			
Consultant + Research		$ 200,000.00	
Operational Platform (SC, Bidding, Monitor, Communication)		$ 758,336.00	
Customer Incentives (Technology + Program Pilot Participation)		$ 1,200,000.00	
Total			**$ 2,458,336.00**

Field Pilot

Id #	Task Name	Start	Finish
1	Continue to provide Day Ahead service as part of the pilot	January 2015	October 2016
2	Pilot workshop to introduce new service offerings; real time energy, Day Ahead and real time A/S. Introduce inclusion of residential/mass market aggregation	February 2015	February 2015
3	Any interested parties that offer A/S will declare their interest and proceed to construct their resource	March 2015	September 2015
4	Go live for parties to provide real time energy and A/S resources (rolling) Go live for residential aggregators to provide Day Ahead energy	October 2015	October 2016
5	Finalize data collection and post-evaluation assessment process. Develop report.	October 2015	December 2015
6	Publish findings	December 2015	December 2015

Standards and metrics

Information on relevant standards or metrics or a plan to develop a standard against which the pilot outcomes can be measured

PG&E will benchmark relevant programs by other utilities and program administrators on their efforts on flexible ramping and regulation services. PG&E will keep track of the following as it relates to this initiative:

- Customer satisfaction with the different types of DR used for different flexibility services
- Performance of DR resources versus expected response
- forecasted versus actual budgets
- load reduction, by interval-by hour
- number and duration of events

As the Supply Side DR pilot proceeds, new standards and metrics may be developed and the ones proposed herein may no longer be relevant. Any changes to the standards and metrics will be communicated with Energy Division as part of the quarterly meeting.

Methodologies to test the cost-effectiveness of the pilot

Where appropriate, propose methodologies to test the cost- effectiveness of the pilot

PG&E believes that evaluating the pilot's cost-effectiveness is not appropriate at this time. One of the main goals of the Supply Side DR pilot is to determine the costs and benefits of having DR resources provide services to the CAISO wholesale market.

A cost-effectiveness analysis, after the pilot is completed, on the expected costs and benefits of a full program that offers these services would be meaningful to explore the necessary program attributes needed for future DR programs. PG&E intends to work with Energy Division and the DR Measurement and Evaluation Committee (DRMEC) on this potential program cost-effectiveness at the conclusion of the pilot.

Evaluation, Measurement and Verification plan

A proposed EM&V plan

PG&E will work with DRMEC to properly prepare and conduct a plan to evaluate the performance of some aspects of the Supply Side DR Pilot. PG&E expects that the evaluation will include, but not be limited to, the following:

- An evaluation of any forecasting and baseline tools developed or used as part of this pilot
- An evaluation of the impact and satisfaction of DR resource owners participating
- An evaluation of what type of loads were participating in various services
    - Study and further evaluation of the type of enabling technologies needed to facilitate load as a flexible resource
- An evaluation of an end to end communication and latency

Strategy to identify and disseminate best practices and lessons learned

A concrete strategy to identify and disseminate best practices and lessons learned from the pilot to all California utilities and to transfer those practices to resource programs, as well as a schedule and plan to expand the pilot to utility and hopefully statewide usage. Pilot results shall be reported at the public DRMEC spring or fall meeting on load impact or process evaluation results

PG&E will conduct quarterly meetings with the Energy Division throughout the pilot period. The meetings will include current work, budgets and foreseeable next steps to ensure parties are well informed.

This report will be published and be made publicly available on a designated public internet site by PG&E.

Pilot to Assess Potential for DR to Address "Excess Supply" Situations

New and innovative program design

New and innovative design that have not yet been tested or employed

Problem Statement

A specific statement of the concern, gap, or problem that the pilot seeks to address and the likelihood that the issue can be addressed cost-effectively through utility programs

We have witnessed increasing dialogue around how the rising contribution of renewable resources on the grid could increase the frequency of situations when supply exceeds demand for electricity. More recently, we have also observed growing interest in leveraging demand-side management as one of many potential options to help address these situations. However, as of today, there is limited understanding of the true potential to leverage demand-side resources in this context, as well as what approaches are most effective in securing these resources.

How the pilot will address DR goal or strategy

Whether and how the pilot will address a DR goal or strategy

There is an opportunity for customers to take action, including participation in demand response programs that encourage customers to increase or shift load (rather than reduce load), which may expand the range of tools available to balance the grid. This pilot will evaluate a range of approaches, including technology enablement and customer incentives, to harness customer load to potentially address some of the new operational challenges created by renewables. If successful, PG&E believes that this may also create new opportunities from which customers can benefit.

Objectives and goals for the pilot

Specific objectives and goals for the pilot

The key objectives and goals of the pilot will include, but not be limited to, the following:

- Understand the extent to which demand-side management can support renewable integration
    - Measure ability and willingness of different customer segments to consume or shift load when the supply of electricity exceeds demand
- Understand the best approaches to harness customer load during periods when the supply of electricity exceeds demand
    - Test different approaches that improve the ability and willingness of customers to consume or shift load in response to situations when supply of electricity exceeds demand
    - May include enabling technologies, financial incentives, and other drivers of customer behavior

Budget and timeframe

A clear budget and timeframe to complete the pilot and obtain results within a portfolio cycle. Pilots that are continuations of pilots from previous portfolios should clearly state how the continuation differs from the previous phase

Pilot is requesting $1,100,000 million over the course of two year; 2015 – 2016.

(in millions)	2015	2016
Pilot to Assess Potential for DR to Address "Excess Supply" Situations	$ 0.500	$0.600

Pilot to Assess Potential for DR to Address "Excess Supply" Situations		**$ 1,100,000.00**
Program Administrator	$ 200,000.00	
Vendors		
Research and Studies	$ 200,000.00	
Communicating Platform to Customers	$ 200,000.00	
Customer Incentives (Technology + Program Pilot Participation)	$ 500,000.00	
Total		**$ 1,100,000.00**

Field Pilot

Id #	Task Name	Start	Finish
1	Project kick-off Understand the objectives and identify best practices, if any Construct pilot design	January 2015	March 2015
2	Recruit customers from various segments and rate schedule classes	April 2015	July 2015
3	Conduct field testing	August 2015	August 2016
4	Creation of reports	August 2016	October 2016
5	Publish findings	November 2016	November 2016

Standards and metrics

Information on relevant standards or metrics or a plan to develop a standard against which the pilot outcomes can be measured

PG&E will benchmark relevant programs by other utilities and program administrators on their efforts on addressing this occurrence. PG&E will keep track of the following as it relates to this initiative:

- Customer satisfaction with the different types of demand response usage
- Performance of customer response
- Areas of opportunities to consume load
- Forecasted versus actual budgets

Methodologies to test the cost-effectiveness of the pilot

Where appropriate, propose methodologies to test the cost- effectiveness of the pilot

PG&E believes that evaluating the pilot's cost-effectiveness is not appropriate at this time. One of the goals of the Pilot to Assess Potential for DR to Address "Excess Supply" Situations is to determine the costs and benefits of having customers respond if and when needed.

PG&E intends to work with Energy Division and the DR Measurement and Evaluation Committee (DRMEC) to understand the cost and benefit drivers.

Evaluation, Measurement and Verification plan

A proposed EM&V plan

PG&E will work with DRMEC to properly prepare and conduct a plan to evaluate the performance of some aspects of the Pilot to Assess Potential for DR to Address "Excess Supply" Situations. PG&E expects that the evaluation will include, but not be limited to, the following:

- An evaluation of demand response customer forecasting and baseline tools that may be developed or used as part of this pilot
- An evaluation of the impact and satisfaction of participating demand response customers
- An evaluation of what type of loads were participating
    - Study and further evaluation of the type of enabling technologies needed
- Evaluation of demand response incentive structures

Strategy to identify and disseminate best practices and lessons learned

A concrete strategy to identify and disseminate best practices and lessons learned from the pilot to all California utilities and to transfer those practices to resource programs, as well as a schedule and plan to expand the pilot to utility and hopefully statewide usage. Pilot results shall be reported at the public DRMEC spring or fall meeting on load impact or process evaluation results

PG&E will conduct quarterly meetings with the Energy Division throughout the pilot period. The meetings will include current work, budgets and foreseeable next steps to ensure parties are well informed.

This report will be published and be made publicly available on a designated public internet site by PG&E.

Extension of (DR) Transmission & Distribution Pilot 2 for 2015-2016

New and innovative program design

New and innovative program design that have not yet been deployed at scale

Problem Statement

A specific statement of the concern, gap, or problem that the pilot seeks to address and the likelihood that the issue can be addressed cost-effectively through utility programs

The Transmission & Distribution (T&D) Pilot 2 is an extension of the 2012 – 2014 T&D Pilot that studied, interviewed and demonstrated, on selected areas, the integration of demand response (DR) resources into the electric T&D organizations planning and operation systems and processes.

The interviews provided the DR team insightful information on how the current wires systems are currently operating and the type of DR resources T&D needs. However, the growth and adoption of customer side technologies will challenge how T&D will operate in the future. Customers are installing solar technologies, purchasing electric vehicle loads and considering storage solutions. The problem is complex and each local area inside PG&E's territory may be different.

The T&D Pilot 2 will continue to work with T&D planning and operations to understand how DR can best be constructed not only for a summer emergency condition but for all season. The T&D Pilot 2 will also focus on ways in which DR can be designed, implemented and operated at the local area level to support reliability planning and operations at the CAISO. This will include funding the incremental costs to target DR to solve specific T&D issues.

How the pilot will address DR goal or strategy

Whether and how the pilot will address a DR goal or strategy

T&D Pilot 2 will continue to undertake commercial scale projects on various targeted local areas to develop a strategy around the construction of DR resources that can meet the needs of the T&D operators and planners to support least-cost local reliability planning. The Pilot will continue to address how to best integrate dispatchable DR resources into Transmission and Distribution Operations and Planning at PG&E.

PG&E will also evaluate and test out various customer marketing approaches and incentive structures that will be needed to increase the saturation of DR resources at the local level to support local reliability criteria. Testing various incentive structures will allow PG&E to construct future program offerings that specifically address system and local wire needs. Moreover the T&D Pilot 2 will support the development of localized valuation modeling and other planning and operations integration needs to develop the planning and operations infrastructure needed for full scale integration of DR into the least-cost T&D planning framework.

Objectives and goals for the pilot

Specific objectives and goals for the pilot

The key objectives of the pilot would be to continue to carry on the primary objectives that were laid out as part of the 2012 – 2014 T&D Pilot. The T&D Pilot will continue to understand how T&D Operates and where DR can provide the most value in supporting local area reliability in a least-cost fashion.

In addition, PG&E sees three critical tasks that need further exploration:

Planning Tools:

- Develop tools and analytics that proactively synchronize with T&D Planning
- Assemble analytics that would provide the best areas to assemble DR resources
- Develop a local area DR resource valuation model to support integrated least-cost planning

Operational Development:

- Continue to improve forecasting tools, controls and communication on how DR visibility and dispatch can be better integrated with the evolving T&D operational systems and processes
- Assemble cost-effective solution to monitor in real time DR resource activities

Customer Testing:

- Testing marketing approaches and incentive structures that will engage customers to provide the concentration and flexibility for DR resources to support local reliability planning and operations

Budget and timeframe

A clear budget and timeframe to complete the pilot and obtain results within a portfolio cycle. Pilots that are continuations of pilots from previous portfolios should clearly state how the continuation differs from the previous phase

Pilot is requesting $1,622,500 over the course of the bridge years; 2015 – 2016.

(in millions)	2015	2016
T&D Pilot 2	$.900	$.722

Budget Request: T&D Pilot 2		**$ 1,622,500.00**
Program Administrator	$ 250,000.00	
Transmission/Distribution Planning and Operators	$ 75,000.00	
Technical Vendors		
Consultant + Research	$ 200,000.00	
Operational (Controls + Visual) Demonstration	$ 222,500.00	
Marketing		
Internal	$ 25,000.00	
External	$ 400,000.00	
Customer Incentives (Technology + Program Pilot Participation)	$ 450,000.00	
Total		**$ 1,622,500.00**

Planning

Id #	Task Name	Start	Finish
1	Work with Transmission and Distribution Planning to identify projects that need immediate and long term assistance.	January 2015	February 2015
2	Work with Transmission and Distribution Operating Engineers and System Operators to produce a plan strategy	February 2015	April 2015
3	Any identified areas that does not have sufficient DR resources, work with Account Managers to recruit the specific areas	February 2015	April 2015
4	Lay out all possible incentive (combination of technology and compensation) mechanisms	February 2015	May 2015

* Steps 1 to 4 will occur again for the 2016 year.

Operations

Id #	Task Name	Start	Finish
1	After identification of targeted areas, construct marketing plans to acquire the necessary load relief	February 2015	March 2015
2	Work with internal or external solution providers to construct callable resources that are integrated in T&D	February 2015	May 2015

Id #	Task Name	Start	Finish
	Operations		
3	Operational season	May 2015	December 2016
4	Develop report	October 2016	December 2016
5	Publish findings	December 2016	December 2016

*Steps 1 and 2 will occur again for the 2016 year.

Standards and metrics

Information on relevant standards or metrics or a plan to develop a standard against which the pilot outcomes can be measured

PG&E will benchmark relevant programs by other utilities and program administrators on their efforts to integrate DR resources and T&D planning and operations. PG&E will keep track of the following as it relates to this initiative:

- forecasted versus actual budgets
- program design iterations & triggers
- load reduction, by interval
- number and duration of test events

As the pilot progresses, new standards and metrics may be developed and the proposed metrics may not be relevant. Changes will be communicated with Energy Division as part of the quarterly meeting.

Methodologies to test the cost-effectiveness of the pilot

Where appropriate, propose methodologies to test the cost- effectiveness of the pilot

A methodology to test the cost-effectiveness of this pilot is premature at this point. PG&E fully intends to engage and work with the Energy Division, Demand Response Measurement Evaluation Council (DRMEC), Lawrence Berkeley National Laboratory (LBNL) and any other relevant parties to develop the proper criteria to assess the benefits and costs associated with this pilot.

Evaluation, Measurement and Verification plan

A proposed EM&V plan

PG&E will work with DRMEC to properly prepare and implement a plan to evaluate the T&D Pilot 2. The base evaluation will identify and include, but not limited to, the following:

- Planning forecast
- Operational forecast

Strategy to identify and disseminate best practices and lessons learned

A concrete strategy to identify and disseminate best practices and lessons learned from the pilot to all California utilities and to transfer those practices to resource programs, as well as a schedule and plan to expand the pilot to utility and hopefully statewide usage. Pilot results shall be reported at the public DRMEC spring or fall meeting on load impact or process evaluation results

PG&E will conduct quarterly meetings with the Energy Division throughout the bridge period. The meetings will include current work, budgets, and foreseeable next steps to ensure parties are well informed.

A report will be published and be made publicly available on a designated public internet site by PG&E.