BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.	Rulemaking 13-11-005 Filed November 21, 2013

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-M) ENERGY EFFICIENCY 2015 FUNDING PROPOSAL

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) requests approval of its 2015 Energy Efficiency (EE) Programs and Budget Proposal (2015 Proposal).[1/] PG&E proposes a cost-effective portfolio that meets or exceeds its service area goals, and includes program revisions to further important state policy objectives, including support for increased efficiency at California's schools, state water conservation efforts, grid reliability, and improvements to the Energy Upgrade California™ (EUC) Program.

1/ PG&E's Proposal is submitted in accordance with the California Public Utilities Commission's (Commission or CPUC) *Order Instituting Rulemaking* (OIR) *Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues, Rulemaking (R.) 13-11-005* (Nov. 14, 2013) (Rulemaking), the *Assigned Commissioner's Ruling* (ACR) *and Scoping Memorandum Regarding 2015 Portfolios (Phase I of R.13-11-005)* (Jan. 22, 2014) (Scoping Memo), and the *ACR Amending Scoping Memorandum, and Providing Guidance on Energy Savings Goals for Program Year 2015* (Mar. 3, 2014) (Amended Scoping Memo).

Tables supporting PG&E's 2015 Proposal, in a format approved by Energy Division, are available electronically at pge.com and described in Attachment 1 to this pleading. PG&E is also concurrently filing a Notice of Availability of these tables.

II. SUMMARY OF PG&E'S 2015 PROPOSAL

PG&E's 2015 Proposal largely carries forward the 2013-2014 programs and budgets approved in Decision 12-11-015 (EE Decision)[2/] and in PG&E's Compliance Advice Letter.[3/] PG&E proposes enhancements to portfolio activities and budgets in order to:

1. Achieve the updated EE goals;
2. Support new EE activities being pursued with energy-related Proposition 39 funds designated for schools and community colleges;
3. Continue to improve the EUC program;
4. Help customers to achieve water and energy savings in response to the drought;
5. Increase the value of EE by focusing resources in areas that provide transmission and distribution deferral benefits;
6. Target specific technologies that offer incremental savings not otherwise addressed by program measures.

PG&E discusses these proposals below and summarizes its 2013-2014 EE program activities in these areas in Attachments 2 - 6 to this pleading.

2/ D.12-11-015, *Decision Approving 2013-2014 Energy Efficiency Programs and Budgets*, Application (A.) 12-07-001, et. al. (Nov. 15, 2012, and D.13-09-046, *Order Correcting Error* (Sept. 18, 2013).

3/ Advice 3356-G-A/4176-E-A – *Supplemental: Compliance Advice Letter Implementing PG&E's 2013-2014 Energy Efficiency Portfolio Pursuant to D.12-11-015*, filed April 23, 2013 and approved by Commission Staff disposition letter dated September 5, 2013 (Compliance AL).

A. PG&E Will Meet or Exceed Commission Goals

The Amended Scoping Memo proposes 2015 goals for PG&E that are higher than 2014 goals (with the exception of the gas program goal), as shown in Table 1, below.[4/] Final 2015 goals are expected to be adopted in the Phase I decision on the Administrators' budget requests.

TABLE 1
PACIFIC GAS AND ELECTRIC COMPANY
2013-2015 CPUC GOALS

	2013	**2014**	**2015**
Programs (Gross goals)			
GWH	599	593	698
MW	114	100	110
MMTHerms	*21.0*	20.3	14.3
Codes and Standards (Net goals)			
GWH	254	239	283
MW	31	32	44
MMTHerms	*0.07*	0.55	1.1

PG&E's proposed portfolio is designed to meet and exceed the proposed 2015 energy savings targets. PG&E proposes to continue its suite of EE rebates, incentives, services and tools for targeting customers through multiple delivery channels. These channels include programs implemented through government partnerships and a variety of third parties, including trade professionals, retailers, distributors, manufacturers, as well as a self-service option, where customers seek options directly from PG&E. PG&E proposes a balanced portfolio to deliver cost-effective savings to its customers.

Table 2, below, includes PG&E's 2015 CPUC goals and PG&E's 2015 targets.

[4/] The 2015 goals are based on the 2013 California Energy Efficiency Potential and Goals Study Final Report (Goals Study), prepared by Navigant Consulting, Inc., dated February 13, 2014, and attached to the Amended Scoping Memo.

TABLE 2
PACIFIC GAS AND ELECTRIC COMPANY
2015 GOALS AND FORECAST

	GWh	MW	MM Therms
Programs (gross goals)			
CPUC 2015 Goals	698	110	14.3
PG&E 2015 Proposed Target	739	119	23.6
% of PG&E Target to CPUC 2015 Goal	*106%*	*108%*	*165%*
Codes & Standards Advocacy (net goals)			
CPUC 2015 Goals	283	44	1.1
PG&E 2015 Proposed Target	283	44	1.1
% of PG&E Target to CPUC 2015 Goal	*100%*	*100%*	*100%*

B. PG&E's Portfolio Is Cost Effective

PG&E's 2015 Proposal is cost effective, as shown in Table 3, below.

TABLE 3
PACIFIC GAS AND ELECTRIC COMPANY
2015 PORTFOLIO COST EFFECTIVENESS[5/]

Line		TRC	PAC
1	Total 2015 Proposal Portfolio	1.19	1.89
2	Total 2015 Proposal Portfolio less BayREN and MCE	1.21	1.95
3	2015 Proposal for Resource Programs Only	1.25	2.04

5/ All versions of cost effectiveness include resource programs, C&S, burden benefits, an estimate of recorded 2015 Efficiency Savings and Performance Incentive (ESPI), Statewide Marketing, Education and Outreach (SW ME&O) program funding adopted in D.13-12-038, EM&V, and market effects. The TRC and PAC shown in Line 1 conservatively include a TRC for Bay Area Regional Energy Network (BayREN) and Marin Clean Energy (MCE) of 0 and combined 2014 authorized funding level of $13.3 million as a placeholder until the Commission adopts their final 2015 EE budgets. BayREN and MCE costs are excluded from Lines 2 and 3. Line 3 removes the costs associated with PG&E's WE&T, IDSM and Financing programs to show the cost effectiveness for the portion of the portfolio that meets the CPUC's energy savings goals. Additional details on these cost effectiveness related assumptions are included below in Section IV.A.3; further details on program, subprogram and portfolio cost effectiveness metrics are provided in Appendices A, B and D, as shown in Attachment 1.

C. PG&E's Budget Request Is Reasonable and Should Be Approved

PG&E's EE portfolio request is $396.2 million to continue PG&E's EE programs and fund 2015 Evaluation, Measure and Verification (EM&V) activities.[6/] PG&E also requests, as directed in D.14-01-004, an additional $3.3 million to fund the Demand Response (DR) program portion of the Integrated Demand Side Management (IDSM) activities. PG&E's budget request is discussed below with details in Appendix B.1.

PG&E's total proposed request for 2015 is unchanged from its annualized 2013-2014 portfolio adopted in the EE Decision and approved in PG&E's Compliance Advice Letter. However, PG&E proposes to re-allocate funds between its programs and subprograms to assure that its request is reasonable, cost effective, and meets the Commission's energy savings goals.

PG&E's request differs from the 2014 budgets as follows: (1) an increase in the Commercial program budget to support Proposition 39 and Title 24 changes; (2) an increase in the C&S budget to support additional Zero Net Energy (ZNE) goals and activities; (3) a modest incentive budget increases for Residential and Lighting programs to supports new construction and expected LED uptake; and (4) a decrease in the Financing program budget request by $21.5 million, primarily due to the extension of the financing pilots to 2015.[7/]

PG&E's proposed budget for 2015, compared to 2014, is presented in Table 4.

[6/] PG&E's rate and cost-effectiveness analyses include funding for BayREN and MCE at current authorized levels of $11.4 million and $2 million, respectively, as placeholders, which, when combined with PG&E's funding request, totals $409.6 million.

[7/] This request includes $5 million for On Bill Financing (OBF) and ARRA Continuation program operations and $10 million to the OBF loan pool to meet Prop. 39 and other program demand. PG&E does not propose new funding for the financing pilots as D.13-09-044 extended the 2013-2014 funding to 2014-2015.

TABLE 4
PACIFIC GAS AND ELECTRIC COMPANY
2014 BUDGET AND 2015 ENERGY EFFICIENCY PORTFOLIO AND DEMAND RESPONSE REQUEST

Program / Cost Element	2014 Budget ($ M)	Requested 2015 Budget ($ M)	Change from 2014 ($ M)
Residential	57.2	59.5	2.3
Commercial	58.8	73.6	14.7
Agricultural	17.4	17.4	-
Industrial	17.3	17.3	-
Lighting	10.4	12.9	2.5
Codes and Standards	6.2	8.2	2.0
Emerging Technologies	6.0	6.0	-
Workforce Education and Training	11.8	11.8	-
Statewide DSM Coordination and Integration	0.7	0.7	-
Financing	36.5	15.0	(21.5)
Third Party	87.2	87.2	-
Government Partnerships	69.7	69.7	-
Evaluation, Measurement and Verification	17.0	17.0	-
Total Budget Request for Energy Efficiency Portfolio	**396.2**	**396.2**	**-**
Demand Response Integrated Demand-Side Management	**3.3**	**3.3**	**-**

(a) Budgets do not reflect pre-2013 carryover funds.

PG&E is carrying over $34.4 million in remaining committed and encumbered funds from the 2010-2012 program cycle to complete ongoing customer projects from that period. PG&E expects approximately $17.8 million will be available to carry over into 2015.

D. Key Policy Objectives

PG&E proposes specific portfolio improvements to address state policy objectives, including increasing EE in schools, improvements to the EUC program, EE activities focused on water and energy savings in response to the drought, and targeting EE resources in areas that

provide transmission and distribution (T&D) deferral benefits or specific technologies that offer incremental energy savings not otherwise addressed by program measures.

III. REGULATORY BACKGROUND

On November 14, 2013, the Commission opened this rulemaking, and established three phases designed to: (1) extend funding for the existing EE portfolio through 2015 (Phase I); (2) implement EE "Rolling Portfolios" (Phase II); and (3) address various policy issues (Phase III).

The January 2014 Scoping Memo provided direction on the scope, content, and expedited schedule for the EE Program Administrators to request 2015 EE funding by March 3, 2014. Commissioner Peevey issued an Amended Scoping Memo on March 3, 2014, directing EE Program Administrators to file their Phase I 2015 EE funding requests by March 26, 2014, and including the 2015 goals based on the Goals Study.

PG&E's 2015 Proposal incorporates the Commission's Phase I guidance and other Commission requirements that impact PG&E's 2015 funding request, as described below.

A. Demand Response/Integrated Demand Side Management

PG&E's funding request includes funding for both DR and EE IDSM activities, pursuant to D.14-01-004, which states: "beyond 2012 all IDSM activities would be proposed and approved through the energy efficiency proceeding."[8/] This decision approved a two-year funding extension for 2015-2016, however this request does not address ISDM funding for 2016.

B. Statewide Marketing, Education and Outreach

Statewide Marketing, Education, and Outreach (SW ME&O) funding for 2014 and 2015 was approved in *Decision on Phase 2 issues; Statewide Marketing, Education, and Outreach*

8/ D.14-01-004, p. 12; D.12-04-045, p. 171.

Plans for 2014-2015 (D.13-12-038). This decision adopted $12.1 million for EE and $7.9 million for DR, for the two-year period.[9/]

C. Water Energy Nexus Rulemaking

On December 30, 2013, the Commission opened the Water/Energy Nexus Rulemaking (R.) 13-12-011 to develop a partnership framework among the energy investor-owned utilities (IOUs) and the water utilities to approve a cost-effectiveness methodology for water and energy savings measures. There will be coordination between the new rulemaking and current and future EE rulemaking proceedings to ensure consistent treatment of water/energy programs in the IOUs' EE programs. PG&E's 2015 Proposal includes continued funding for water/energy savings programs and partnerships, as discussed further below.

D. General Rate Case Partial Settlement Agreement

Historically, PG&E has recovered certain Administrative and General (A&G) costs[10/] for employees who work on PG&E's EE programs, in PG&E's General Rate Case (GRC) through distribution base revenue. As part of its 2014 GRC Phase I Application (A.) 12-11-009, PG&E, the Utility Reform Network (TURN) and MCE proposed a Partial Settlement Agreement, which, if approved, would require PG&E to recover these amounts, through its EE public purpose program rates, rather than through distribution base revenue.[11/] If the Partial Settlement Agreement is approved, such costs would be tracked and recovered in the EE balancing accounts

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9/ The amount includes a $2 million reduction for amounts spent from 2010-2012 EE program funds to support statewide marketing in 2012 and 2013, consistent with Ordering Paragraph 5.

10/ These costs include employee benefits (medical, vision, dental, employee healthcare contributions, group life insurance, short-term incentive payments, 401K expenses, relocation expenses, short-term disability, and tuition reimbursement).

11/ *Motion for Approval of Partial Settlement Agreement Between and Among PG&E, The Utility Reform Network, and The Marin Energy Authority*, A.12-11-009 (Sept. 6, 2013). The Partial Settlement Agreement was amended and resubmitted for approval on March 18, 2014.

effective January 1, 2014. An estimate for the EE-related burdens benefit for 2015 of $21.6 million is included in the cost-effectiveness analysis supporting PG&E's 2015 Proposal.[12/]

E. Electric Program Investment Charge

The Commission established the Electric Program Investment Charge (EPIC) to provide public interest investments in applied research and development, technology demonstration and deployment (TD&D), market support, and market facilitation, of clean energy technologies and approaches for the benefit of electricity ratepayers.[13/] To ensure efficient use of ratepayer funds, PG&E verified that activities undertaken as part of its approved 2013-2014 EE Portfolio, specifically the Emerging Technologies (ET) Program, are not duplicative of TD&D activities approved as part of PG&E's first EPIC triennial investment plan (2012-2014) application (A.12-11-003). As part of its second EPIC triennial investment plan (2015-2017) application, due May 1, 2014, PG&E will verify that EPIC TD&D activities are non-duplicative of RD&D activities in its 2015 Proposal.

IV. PG&E'S 2015 ENERGY EFFICIENCY PROGRAMS AND BUDGET PROPOSALS ARE REASONABLE AND SHOULD BE APPROVED.

A. Goals, Savings Forecast Assumptions and Cost Effectiveness

1. Comments on Draft Goals

PG&E appreciates the time and effort that Energy Division, Navigant, and other stakeholders invested in developing 2015 draft goals. PG&E generally agrees with the draft goals, and appreciates the adjustments that were made to the industrial and agricultural sectors,

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[12/] D.12-11-015, OP 39.

[13/] D.12-05-037.

which included removal of measures subject to industry standard practice and those involving operations and maintenance procedures that Program Administrators are unable to pursue.

Street lighting is included as a separate goal in the Amended Scoping Memo (Figure 1); however, the goal listed for "IOU-owned street lighting" in Figure 1 is mislabeled as it is the savings estimated for customer-owned street lighting.[14/] Further, the customer-owned streetlight goal (10.9 GWh) is already part of PG&E's EE programs. The goal should be consolidated into the goals for the IOU programs as there is no need to have a separate streetlight goal. This would result in a total electric goal for PG&E of 698 GWh.

The Amended Scoping Memo also contains a typographical error in Figure 1 for PG&E's Codes and Standards (C&S) MW goal. The C&S goal is stated as 4.2 MW, but it is clear from the amount of the total goal (154.4 MW), less the IOU program savings goal (110.2) that this is an error and should be 44.2 MW.[15/]

2. Savings Forecast Assumptions

PG&E used best available data to inform savings values to develop its forecasts and 2015 cost effectiveness showing, shown in Appendices B.2 and D. Below, PG&E describes its assumptions for the three primary mechanisms for establishing savings values: deemed measures, custom projects and codes and standards studies. Although the 2015 Proposal requests programmatic changes that would affect savings calculation methods, all calculations performed for the savings forecast use currently-approved calculation methods. Energy Division

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[14/] See Navigant, 2013 California Energy Efficiency Potential and Goals Study, p. 28. Navigant appears to assume that IOU-owned street lighting cannot participate in rebates; however Public Utilities Code Section 384.5 (c) states that IOU-owned streetlights are subject to rebates. Since the IOU-owned streetlight program is going to be available after the approval of the July 2015 advice letters, PG&E agrees that the IOU savings values for IOU-owned streetlight should be excluded. Savings attributed to IOU-owned streetlights should be included in 2016 and beyond.

[15/] See also Goals Study, Table ES-4, Recommended IOU Baseline Program Demand Target Inputs from the 2013 Potential Model, line 3 (listing a net C&S goal for PG&E of 44 MW).

recently indicated that savings values for financing efforts would be determined in ex-post evaluations. PG&E's 2015 Proposal savings forecast does not include finance program savings.

a) Savings Values for Deemed Measures

For energy savings activities that are relatively small per unit, but are repeated many times, PG&E relies on results from market surveys and engineering studies, which identify standard conditions and savings levels. These activities are represented in our forecast as deemed measures. The Database for Energy Efficient Resources (DEER) contains information from the surveys and studies on selected energy efficient technologies and measures. Deemed measure energy savings values are determined via one of three methods: 1) direct use of DEER values, 2) submission of an engineering work paper leveraging DEER information (DEER work paper), or 3) submission of an engineering work paper with limited DEER information (non-DEER work paper).

PG&E updated the deemed measure savings values to account for Title 24 and Title 20 updates. DEER was updated to DEER 2014 to account for the Title 24 and Title 20 updates. For deemed measures which use savings values directly extracted from DEER, PG&E extracted those values from DEER 2014 using the READi tool.

For measures leveraging DEER work papers or non-DEER work papers, PG&E reflects the Title 24 and Title 20 for non-DEER measures updates through adjustment factors developed by comparing DEER 2014 with the prior version of DEER. These are included in Appendix E, the Title 24 update Savings Values Adjustment Factors, which includes both the specific adjustment factor for each measure as well as an explanation of the method used for obtaining the adjustment factor. The prior work paper approved savings values were adjusted by these factors to develop the 2015 Proposal savings values, which were then inputted into the Energy and Environmental Economics Inc. (E3) calculators for the purpose of creating forward-looking projections. PG&E will subsequently use the work paper approval process to determine appropriate energy savings values. Utilizing DEER values and the work paper approval process

ensures energy savings values used for planning and reporting purposes are verified by Commission Staff. Because finalized work paper values will not be approved until later this year, the use of adjustment factors has been deemed an appropriate method in discussions between Program Administrators and Commission Staff, and to help expedite review of the 2015 Proposal, factors were shared with Commission Staff in February 2014.

The Scoping Memo indicates that Program Administrators should use any ex-ante savings values resulting from studies for measures on the ESPI "uncertain measure" list. No new studies have been completed for any measures on the ESPI uncertain measure list. Therefore, there are no new associated savings value assumptions. Updated savings values for the ESPI uncertain measure list items will be used for future EE funding proposals when available.

PG&E expects to receive finalized ex-ante savings values in the third quarter of 2014 through the work paper approval process. PG&E will include these savings values in its regular reporting of energy savings for 2015. Depending on the impact of the finalized ex-ante savings values, PG&E may restate its 2015 energy savings targets to reflect the finalized values. Due to the changes in 2013-2014 ex-ante savings values from the work paper approval process, PG&E has restated its 2013 and 2014 energy savings targets. The savings values found in Appendix B.2 update the forecasted values submitted in the Compliance AL.

b) Savings Values for Custom Projects

For energy saving activities that are customer and site-specific for each project and have relatively large savings values, calculations are done specific to each project; these are considered custom projects.

PG&E's savings estimates for custom projects and measures reflect: (1) Commission Staff's direction; (2) 2014 Title 20 and Title 24 Code updates; and (3) updates to Industry

Standard Practice (ISP).[16/] PG&E estimated the impact of Title 20 and Title 24 on custom projects. This effort used a similar analysis to the factor approach above in taking a high level look at the expected energy savings reductions and applying those factors in a forward looking scenario. To estimate the volume of activity, PG&E assessed past participation determining which activities and technologies are expected to be available for program promotion in the future, and which would not be available due to updated code and ISP. An analysis of indicative projects was done to estimate the savings per project and determine how much to reduce the savings per project to account for the more efficient baselines. These two analyses were then combined to forecast the energy savings from custom projects.

c) Savings Values for Codes and Standards

PG&E's savings estimates for C&S are consistent with the 2015 Goals Study. C&S savings estimates are based on a layered model, which includes continuation of new first-year savings for previous codes and standards. The assumptions used to develop PG&E's C&S savings estimates are consistent with the assumptions the Commission used to set C&S energy savings goals. PG&E will continue to work with Commission Staff to review these assumptions, and other evaluation protocol and program policies, in advance of filing rolling cycle proposals for 2016 and beyond in Phase II of the Rulemaking.

3. Cost Effectiveness

PG&E's portfolio cost-effectiveness analysis, shown in Table 3 above, includes funding and associated savings for PG&E's resource and non-resource programs, C&S Advocacy, the EE portion of funding for 2015 Statewide ME&O, a placeholder value for the ESPI recorded in 2015 based on an annualized "business as usual" estimate from D.13-09-023 at p. 4; and an estimate of

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[16/] ISP is a practice of determining what is commonplace in the industry and using the determined ISP as energy usage baselines.

savings from the Energy Savings Assistance (ESA) program. PG&E has also included utility EE personnel burdens benefit costs, which PG&E currently recovers through distribution base revenue adopted in its GRC.[17/] The Total 2015 Proposal Portfolio TRC, shown on Line 1 of Table 3, includes funding for BayREN and MCE based on current authorized levels. The 2015 Proposal for Resource Programs Only TRC, shown on Line 3 of Table 3, excludes Workforce Education & Training and IDSM costs; financing program costs are also excluded as savings will be applied to the program only on an ex-post basis.

The cost-effectiveness analysis excludes the 2015 Emerging Technologies (ET) Program budget, the 2015 request for OBF revolving loan funds adjusted for projected loan defaults,[18/] and the credit enhancements approved for Financing Pilots in D.13-09-044. PG&E applied a 5 percent market effects adjustment in its portfolio cost-effectiveness analyses to account for program spillover for all resource programs except C&S.[19/] No market effects adjustment was made to the C&S savings estimates. PG&E used the version of the E3 calculator provided on June 25, 2012, to calculate the portfolio's cost effectiveness. See Appendix A, Tables 7.1 and 7.2, and Appendices B.2 and D.

B. Proposed Programmatic Changes

PG&E proposes to continue current resource and non-resource programs from the 2013-2014 portfolio cycle.[20/] In order to achieve 2015 goals, PG&E proposes incremental adjustments

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[17/] D.12-11-015, OP 39; CPUC. Energy Efficiency Policy Manual, Version 5 (July 2013) (EE Policy Manual), pp. 9-10, 87.

[18/] D.09-09-047, p. 288.

[19/] D.12-11-015, OP 37.

[20/] PG&E filed Advice 3413-G/4283-E, approved effective September 19, 2013, to close 3P program (PGE210125). PG&E filed Advice 3461-G/4366-E on February 28, 2014 to close 3P programs (PGE210117, PGE210120, PGE21024, and PGE21019). PG&E will shortly file an advice letter to close an additional 3P program (PGE210116).

to certain programs from the 2013-2014 portfolio. These are addressed in Section 1 below.[21] In addition, PG&E proposes programmatic adjustments to support state policy goals, through the continued operation and further development of programs that support Proposition 39, target particular regions and customers, focus on water savings efforts, and improve EUC.[22] These are addressed in Sections 2, 3, 5 and 6 below.

The Scoping Memo suggests that Administrators identify specific targeted savings opportunities and propose program, avoided cost, or alternative baseline methods for achieving these savings.[23] PG&E sees several areas in the EE market where substantial savings potential exists and, given slight modifications to current baseline policy and program rules, are more likely to be achieved. These areas include Proposition 39, T&D upgrade deferral opportunities, and specific technologies with stranded energy savings potential. Sections 2 and 3 discuss why it is appropriate to use existing site conditions as a baseline to support achievement of the significant and timely energy savings potential. Section 4 includes a discussion of important issues associated with using existing site conditions as baseline.

1. Program changes to reflect updated energy efficiency goals and evolving market conditions

a) Commercial

PG&E has had strong customer participation in the Statewide Commercial program in 2013 and the first quarter of 2014 and expects this participation level will continue in 2015. To

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[21] In addition to the changes outlined in Section 1, PG&E will also continue to evaluate and make incremental changes to its portfolio where appropriate. For example, to support our municipal customers' efforts to overcome barriers to implement EE projects, PG&E is evaluating whether to incorporate public procurement job order contracting capabilities into its existing local government energy efficiency support services coordinated through Government Partnerships in 2014.

[22] Note that PG&E programs support additional state policy goals not discussed in this filing. For example, both Commercial and Residential programs support the state's move towards ZNE construction; however, this filing focuses on the specific areas of our portfolio addressed in the Scoping Memo.

[23] Scoping Memo, p. 5.

accommodate the demand from customers, PG&E shifted $8.8 million into the Commercial program at the end of 2013 bringing PG&E's operating budget to $67.7 million.[24/] PG&E's 2015 request of $73.6 million for this program aligns with this upward trend.

PG&E proposes to offer more technical support, such as energy usage insights, facility audits, and calculation and design assistance to accommodate the impacts of, and transition to, 2013 Title 24, which go into effect on July 1, 2014. Customers will require increased technical support to comply with new Title 24 regulations, as these regulations are more complex and rigorous than in prior years. Increasing technical support to our commercial customers should increase EE project installations.

PG&E proposes to offer more comprehensive technical and design assistance, and increase the number of energy audits for schools to support the installation of EE projects to support the California Clean Energy Jobs Act (Proposition 39).[25/] PG&E will provide K-12 schools with more integrated tools to understand their energy usage, and provide more inventories of technical project opportunities and financial analysis information. PG&E anticipates K-12 schools will need assistance in identifying and evaluating projects to include as part of the Expenditure Plans, a requirement to receive Proposition 39 funding. Many K-12 schools in PG&E's service area lack energy managers and other technical expertise to identify, evaluate, and design EE projects. K-12 schools will be better positioned to take advantage of Proposition 39 funding with PG&E's technical and design assistance and, as a result, we expect an increase in installations of EE projects. More details on PG&E's Proposition 39 proposal are in Section B.5 and Attachment 2.

In 2015, PG&E will transition the Business Energy Reports ET project to the Statewide Commercial program in recognition of the importance of innovation in program approaches and

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[24/] See PG&E's 4th quarter 2013 fund-shifting report on the CPUC's Energy Efficiency Statistics website at http://eestats.cpuc.ca.gov/.

[25/] Public Resources Code § 26205 et seq.

the success of the ET project. Business Energy Reports help drive awareness and behavior change in small-and medium-sized business (SMB) customers. PG&E expects the Business Energy Reports offering to demonstrate energy savings equal to or greater than our Residential Home Energy Reports, which has helped participating customers achieve a 1.5% energy savings. PG&E will use the existing regulatory behavioral program definition of comparative energy usage, experimental design, and ex-post measurement for the Business Energy Reports offering, and looks forward to working with the CPUC to evaluate the program similar to the evaluation of the Home Energy Reports.[26/] In 2013-2014, PG&E reached 15,000 SMB commercial customers through the Business Energy Reports ET project. Since October 2013, PG&E has witnessed a strong 2-3% response rate. PG&E will continue to refine the program, calculate behavioral energy saving results, evaluate engagement effectiveness, track marketing effectiveness, and assess customer satisfaction. For 2015, PG&E plans to increase the distribution of the reports to 30,000 SMB customers.

b) Codes and Standards

The Statewide C&S program is a critical component of achieving the State's long-term EE goals. With additional funding allocated to the C&S program, PG&E will expand its current efforts for existing subprograms and increase code research efforts in support of ZNE-ready activities. Further, PG&E will increase support for state and national building codes. Potential projects may include greater harmonization between state and national building codes, longer term projects targeting the 2019 code cycle, and support for compliance options.

PG&E will expand field research in support of federal and state residential and non-residential appliance standards and test methods. PG&E may also expand testing and tear down analysis and engage in targeted research on high impact code measures. PG&E will expand role-based training and tool development, and outreach and education for Title 20 standards. Current

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[26/] D.10-04-029, p. 37.

reach code efforts are often structured to require that buildings outperform Title 24 by a certain percentage. PG&E will explore other options for implementing reach codes.

c) Financing Program

PG&E's financing program includes On-Bill Financing (OBF), ARRA continuation pilots, and the new financing pilots. This 2015 funding proposal, together with the 2013-2014 funding for the financing pilots that was extended into 2015, reflects support for each of these program activities. PG&E's financing budget proposal includes funding for the OBF and ARRA continuation subprograms. There are no additional funds requested for the new financing pilots, as these are funded for 2015 using 2013-14 funds.[27/]

The OBF revolving loan pool allows the IOUs to make additional loans from funds repaid by customers.[28/] Funds in the revolving loan pool that are projected to be available at the end of 2014, combined with projected repayments throughout 2015, are expected to be sufficient to cover the majority of projected loan volume in 2015. PG&E's proposal includes an additional amount of $13 million for OBF ($10 million for the loan pool and $3 million for administration) to cover potential increased demand for OBF resulting from delays in implementing the new financing pilots, Proposition 39, and other financing activity. PG&E encourages customers to utilize the most effective financing solutions for their EE upgrades and assists implementers and contractors to include third-party finance offerings including Commercial PACE, tax exempt leases, equipment leases and other financing offerings into their customer delivery model. Increased availability and uptake of these offers could decrease OBF demand.

[27/] D.13-09-044, OP 20.

[28/] D.09-09-047, p. 387.

d) Incentive Level Changes

PG&E is considering changes to incentive levels to improve its overall portfolio performance in 2015, but makes no specific proposals at this time. Any incentive adjustments will be made consistent with the existing procedures to amend incentive levels. PG&E will continue to follow Commission direction and file an Advice Letter when the incentive levels of statewide programs are changed by 50% or more per D.05-09-043. PG&E will notify the Commission of incentive level changes less than 50% through the Program Implementation Plan (PIP) addendum process.

PG&E notes that there are instances where the incentives ranges in the authorized PIPs are broader than the 50% change standard in Decision 05-09-043. PG&E recommends that the Commission clarify its policy to require an Advice Letter when an Administrator requests to change incentive levels by 50% or more **and** the new incentive level exceeds the maximum incentive specified in the PIP. This clarification would limit Advice Letter activity to incentive changes outside the range foreseen in the PIP, and an advice letter would not be needed to approve incentive levels that have already been reviewed and approved in the existing PIP.

2. Proposition 39

Proposition 39 created a new Clean Energy Job Creation Fund. Over each of the next five fiscal years, Proposition 39 funds may be roughly $550 million dollars per year, which will be allocated to public K–12 schools and California community colleges for EE and renewable energy projects. Implementation of Proposition 39 was codified in Senate Bill 73 in June 2013.[29]

Proposition 39 represents a significant opportunity to support schools' efforts to improve their infrastructure's energy efficiency. PG&E is committed to guiding our K-12 and California community colleges (schools) customers throughout their EE journey to use their Proposition 39 funding allocation to achieve the most comprehensive, persistent energy savings. In order to

[29] Pub. Resources Code §§ 25415 *et seq.* and 26225-26240.

receive a Proposition 39 funding allocation, a Local Education Agency (LEA), must first benchmark the schools in their territory, identify projects, submit a successful Expenditure Plan, and finally implement the energy savings projects. This process can be daunting for many LEAs. PG&E has existing program infrastructure in place to assist schools, from project inception, to project completion. In 2015, PG&E plans to leverage its 2013-2014 portfolio of programs, products, and services to continue to support schools and Proposition 39-related activities. In addition, to maximize schools' savings potential, PG&E will increase technical support to help schools to identify and prioritize EE opportunities, with a particular focus on comprehensive, deeper retrofits. PG&E will increase the technical support budget for schools to $1.7 million in 2015 and provide financial incentives to remove barriers to project implementation. PG&E's 2013-2014 efforts to support schools' use of Proposition 39 funds are summarized in Attachment 2.

a) **To ensure Proposition 39 funds are used efficiently, PG&E supports an expedited custom project review process**

PG&E proposes, consistent with the EE Policy Manual, that customized retrofit incentive applications for Proposition 39 projects be expedited in the custom project review process. PG&E proposes that Commission staff decide within ten (10) working days if a new application, either in pre-application or application stage, that is leveraging Proposition 39 funding will be subject to review. The Policy Manual states: "An IOU may request that a project review decision be expedited for high priority or fast-tracked projects."[30/] PG&E proposes to flag Proposition 39-related projects on the custom measure and project archive (CMPA). All other custom review process requirements will be followed. Schools have short project installation windows, typically during scheduled breaks in the academic calendar. These time restrictions require

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30/ EE Policy Manual Version 5, p. 75.

expedited project reviews. The Department of State Architecture also has an expedited review process for Proposition 39 projects to ensure projects are reviewed in a timely manner.

b) **Full savings attribution for Proposition 39 projects that leverage IOU incentive programs accrue to PG&E**

The California Energy Commission (CEC) has strongly encouraged the IOUs to provide incentives for Proposition 39 projects. PG&E is committed to providing incentives for the Proposition 39 projects, and requests confirmation that it will receive full energy savings credit (using the ex-ante net-to-gross value for each Proposition 39 project and not re-assessing the net-to-gross in the *ex post* evaluation) for Proposition 39 projects. PG&E will only claim savings from measures offered in PG&E's portfolio and supported by a PG&E incentive. Given that 70% of school buildings are over 25 years old and have not been upgraded, the State has recognized that these savings will not occur without significant outside influence. Schools participating in PG&E's EE programs should not be considered "free riders," for purposes of savings attribution. Proposition 39 was intended to maximize energy savings by complementing existing energy savings programs and encourage comprehensive projects, not compete with other programs and funds. Further, most, if not all customers pursuing EE projects contribute their own funding to finance the project and the IOUs accrue full savings attribution, regardless of funding source.

c) **Schools projects should use existing conditions as the baseline**

The appropriate baseline for school EE projects is the existing site conditions and energy use of the school, rather than a hypothetical level of energy use the school might have if it had already undergone retrofits to code. Studies show that 70% of schools have not upgraded in over 25 years[31/], and many of these schools are not up to current code, representing a significant

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[31/] Center for the Next Generation. Proposition 39: Investing in California's Future. (Dec. 11, 2012), pp. 2–4, <http://thenextgeneration.org/publications/prop39-investing-in-california>

savings opportunity that under current efforts is simply not being captured. Without the additional support provided by Proposition 39 and the utility EE programs, it seems unlikely that schools will have the budget to engage in any EE projects. Indeed, the California Energy Commission (CEC) has recognized the appropriateness of using existing site conditions as baseline in its implementation of Proposition 39. The CEC specifies that all of the Proposition 39 measurement and verification calculations shall be based on "as is" conditions rather than Code,[32/] which is consistent with the intent of the Proposition 39 legislation.[33/] PG&E endorses alignment of CPUC and CEC policy on this issue.

PG&E notes that using the existing site conditions as the baseline to evaluate schools projects will also support deeper retrofits and savings opportunities at this unique moment in history when the schools have additional budget support for energy efficiency projects. While Proposition 39 is helping to support schools with funding, the funding levels on a per school basis may be insufficient to promote deep, comprehensive EE investments. Additional utility incentives, which are supported by the use of existing site conditions as a baseline, will help drive deeper energy savings and more comprehensive projects, and assist schools in purchasing technologies like more advanced and typically higher first cost LED lighting and lighting control systems. For instance, schools leveraging Proposition 39 funds must propose a bundle of energy projects at each school site that meet a Savings to Investment Ratio (SIR) of at least 1.05 to be approved for a Proposition 39 award. Coupling Proposition 39 funding with IOU EE incentives improves the SIR of the bundled projects, allowing schools to consider more and deeper EE projects.

[32/] Bucaneg, et al. 2013. Prop. 39: Cal. Clean Energy Jobs Act −2013 Program Implementation Guidelines. CEC, Energy Efficiency Div. Publ'n No. CEC-400-2013-010-CMF , p. E-3, <http://www.energy.ca.gov/2013publications/CEC-400-2013-010/CEC-400-2013-010-CMF.pdf>

[33/] Sen. Bill No. 73 (Pub. Resources Code §§ 25415 *et seq.* and 26225-26240).

3. Targeting Particular Regions or Customer Groups

The Rulemaking states "it may be appropriate for all energy efficiency administrators to accelerate development of programs targeting particular regions or customer groups".[34/] PG&E outlines two specific targeted proposals here that focus on specific regions and customers.

a) T&D Planning Integration

PG&E is targeting demand-side resource opportunities that integrate T&D planning information with its DR and EE programs to potentially defer capital investments while still providing safe and reliable electricity service. Including DR and EE in the planning process for substation capacity increases or upgrades will allow for a more efficient allocation of available resources. Attachment 3 describes PG&E's T&D planning integration effort in greater detail, including PG&E's objectives, methodology to identify substations, and current activities.

PG&E's planning engineers use actual and forecast load as measured at the grid to determine the need for potential substation capacity expansion projects. To impact this planning process, PG&E's targeted demand side program activities focus on offsetting load as measured on the grid. The appropriate baseline for measuring energy savings reductions from current state is the existing conditions and energy use of the customers taking service from the particular substation. Applying a baseline that reflects existing conditions would account for all savings achieved at the substation, and appropriately state the grid impact of the EE measures, as well as increase customer incentives to install EE measures where they have higher value. PG&E recommends that the Commission adopt the use of existing site conditions as a baseline to support this effort at the substations identified in Attachment 3, as well as additional substations PG&E may identify that meet similar criteria.

[34/] *OIR Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues*, R.13-11-005 (Nov. 21, 2013), p. 7.

The use of existing site conditions as baseline best enables PG&E to offer premium incentives to customers in these targeted areas for a limited time and track the actual measurable savings on the grid against savings necessary to defer or reduce the size of substation upgrades. The targeted areas include four substations, representing less than 1% of PG&E's customer base, but over $10M[35/] in potential substation upgrade costs. Depending on the projects identified and what projects customers decide to pursue, the deferral may be achievable at significantly less than the cost of upgrading the substations, even if customers are paid higher DSM incentives. This exemplifies how a small policy change could result in a more rational investment outcome.

To integrate DR and EE into T&D Planning, engineers must see tangible demand reductions at each site aggregated to the feeder, rather than the theoretical average estimates based on "industry standard practice" or code requirements. From the perspective of demand on the grid, it is irrelevant whether energy savings are attributed to bringing a facility up to or above code or industry standard practice. In order to achieve maximum impact to the grid, PG&E's DSM delivery channels should be able to focus on all projects that would be impactful and provide total grid savings, whether those savings are "to-code" or above. Additional discussion on the context and rationale for savings baseline adjustments is in Section B.4 below.

b) Stranded Potential Savings

Despite the continued advancement in energy efficient technologies, PG&E notes the existence of pockets of "stranded potential" where the use of older, inefficient equipment persists. Three specific technologies are immediately apparent: motors, customer transformers and T12 fluorescent lighting. In each of these cases, improved technology has existed for a number of years; however, building owners have continued to maintain, repair or potentially live

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35/ PG&E 2014 GRC workpapers Exhibit PG&E-4, Chapter 12, Table 12-8-Revised.

with marginally acceptable, old equipment, rather than upgrading their equipment, to avoid capital investments and new code requirements.

PG&E defines "stranded potential" as energy savings potential associated with installed equipment that, if upgraded, could result in significant grid level energy savings potential. However, given the ability to continue to maintain existing equipment, the significant cost of upgrading and the current incentive support, equipment owners are electing to retain this outdated equipment. Because existing policy is insufficient to move these customers, these upgrades are not occurring.

In light of the evidence that customers are, in certain cases, choosing not to upgrade from existing conditions, PG&E proposes the use of existing site conditions as an alternative baseline for these specific, targeted stranded potential opportunities to obtain these otherwise unachievable EE savings. Attachment 4 discusses each specific technology and the qualities that enable continued substandard operation. PG&E believes it is important to shift the context under which these technologies and programs are assessed. If the action is cost effective, when calculating both the savings and the incentive based on existing site conditions, pursuing this stranded potential aligns with state policy goals.

PG&E identified additional stranded potential opportunity in buildings constructed before 1975 that have not been significantly upgraded. Current Commission policy assumes that building upgrades to code will naturally occur, and attribute program activities only to savings that are above code requirements. California may be missing substantial savings opportunities by designing incentive programs to appeal exclusively to "above-code" investments rather than focusing on segments, buildings, or areas that are not being addressed. PG&E looks forward to additional discussion on this topic both at the CPUC, and, in the context of AB 758[36] at the CEC.

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[36] Pub. Util. Code §§ 381.2, 385.5, and Pub. Resources Code § 25943

4. Use of existing conditions as baseline to promote achievement of savings in targeted situations

In the sections above, PG&E explains its requests to use existing site conditions as baseline to support schools in tandem with Prop 39 efforts, T&D planning integration efforts and specific technologies where saving potential is currently stranded (motors, T12, and transformers). Existing site conditions as the baseline to estimate energy savings is currently used in some circumstances and PG&E's proposal would expand its use. Below, PG&E discusses important associated considerations.

a) Below code savings can be extracted from Codes and Standards savings to avoid double counting

One concern of using existing site conditions as a baseline is that savings could be double-counted in both program and C&S results. PG&E recommends that program savings that might overlap with C&S savings be reduced from the final C&S savings after the portfolio is operated. For example, if these specific programs enable savings for 1% of total customers, a percentage of the below code savings that these 1% of customers achieved could be reduced from the C&S activity. This would be tied to the code adoption rate for those selected technologies and then multiplied by an expected occurrence without program influence factor.

PG&E believes that this type of straightforward adjustment could resolve concerns about potential double-counting of savings. The benefit of tackling these opportunities for energy savings would make this adjustment well worthwhile.

b) Consistent savings calculations support customer action and use of financing

A customer's savings on its energy bill will be based on the change from existing use and conditions to the new use after the project is completed. Unfortunately, customers currently receive statements identifying program-eligible savings values (e.g., savings above code or industry standard practice) and are naturally hesitant to believe the higher bill savings they can achieve compared to their existing conditions. They may rely on the more conservative "above-

code" savings rather than the full realizable savings for investment decisions. Customers must invest substantial capital in order to upgrade their facilities. Having the program-eligible savings value align with the total bill savings calculated for a project increases transactional transparency and reduces confusion that could prevent end users from taking action to make deeper, longer term EE investments.

c) Alignment with the California Energy Commission

Using the existing conditions as a baseline to estimate savings and calculate incentives aligns with CEC policy direction. In the 2013 Integrated Energy Policy Report, the CEC identified the value in using existing conditions as a baseline for calculating savings and incentives.

> One barrier to full investment in energy efficiency upgrades in existing buildings is the practice of viewing building energy efficiency standards requirements as a "bright line" threshold, below which no public incentives are made available. This can be dysfunctional in two ways: 1) failure to motivate the act of compliance such that many projects are completed without building permits and without code enforcement because the marketplace does not provide clear benefits for compliance; and 2) failure to achieve the savings that would occur from upgrading inefficient equipment and building materials because only the incremental improvement above the standards is eligible for incentives. These conditions lead to purposeful avoidance of building permits and standards compliance, and to decisions to postpone upgrade projects. This prolongs the wasteful energy impact of inefficient equipment and materials, and discourages participation in energy efficiency programs because program requirements are too high and incentives are too low.[37]

Approving PG&E's request to use existing conditions as the baseline would align Commission action with broader state policy goals.

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[37] CEC. 2013 Integrated Energy Policy Report. Publ'n No.: CEC-100-2013-001-CMFCEC, pp. 31-32.

5. Energy Upgrade California Home Upgrade Program

PG&E is committed to the success of Energy Upgrade California™ Home Upgrade and appreciates the Commission's direction to address potential program improvements in this request. Reducing market friction for customers and contractors is one of PG&E's key goals, and PG&E has had early success in this area as demonstrated by increased participation in Home Upgrade, especially with specialty contractors. Since the program's inception, over 6,600 homes have been upgraded, with more than 2,670 of those upgrades occurring thus far in the 2013-2014 program cycle. Furthermore, customer satisfaction with PG&E's Home Upgrade in its current form is very high, with an average customer satisfaction rating of 4.5 (on a scale of 1-5).

Many of the program improvements suggested in the Scoping Memo have been completed or are in process, and are detailed in Attachment 5 – 2013-2014 Energy Upgrade California Activities.[38/]

While PG&E continues to work with the stakeholder community, including Commission Staff, Program Administrators, and finance partners to identify opportunities for market and program improvements throughout 2014 and 2015, PG&E requests the Commission consider improvements to the program cost effectiveness, as described below.

PG&E proposes a revision to project measure costs to more accurately reflect the true incremental costs of this program. PG&E's proposed revision is based on the discussions of a broad coalition of stakeholders referred to as the Comprehensiveness Working Group (WG).[39/] The current TRC calculation methodology includes the full costs of measures that have both energy and non-energy benefits, which creates an unbalanced view of the cost effectiveness of whole house retrofits (since only the energy related benefits are included to offset the project

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[38/] Scoping Memo, p. 6.

[39/] WG members included: IOUs, TURN, DRA, NRDC, Energy Division, SF Dept. of Environment, NHPC, among others.

costs). Many parties of the WG believe that 25% or more of the cost of these projects reflect customer expenditures to procure non-energy benefits, and hence should be considered for removal from the Home Upgrade TRC calculation. A subsequent December 2013 EM&V study suggests that customers are willing to incur as much as 50% of the cost of these projects to procure the non-energy related benefits.[40/] The program is marketed by contractors based on the numerous benefits of participation beyond just energy savings, such as comfort and other improvements, all critical to driving participation. And while incentives are set at a level appropriate to incent the energy benefits and support project uptake, the incremental measure costs assumed for the program covers both the energy and the non-energy benefits.

PG&E recommends using the latest available results of evaluation and market research studies to estimate a reasonable downward adjustment to the project cost assumption to correct for this inconsistency between costs and benefits. Based on the WG findings and preliminary Impact Report results, PG&E proposes a reduction of between 25%-50% to the incremental measure costs. PG&E proposes that this reduction be applied for Home Upgrade projects in 2015. As Program Administrators continue to ramp-up the Home Upgrade offerings in 2015, this adjustment to cost-effectiveness methodology will more accurately present program results to the community of interested stakeholders. Working closely with Commission Staff and other stakeholders, PG&E will continue to refine ongoing analysis and propose alternate approaches to improve the program's cost effectiveness as part of Phase III of the Rulemaking.

[40/] 2010–2012 PG&E Whole House Retrofit Program Phase II Process Evaluation Study – Methods and Findings - PGE0302.06, p. 30. http://www.calmac.org/publications/2010-012_PG%26E_Whole_House_Retrofit_Program_Phase_II_Process_Evaluation_Study_Volume_2.pdf

6. Water and Energy Opportunities

a) PG&E supports State policy goals and assists customers in responding to the Governor's call to action on the drought.

PG&E's 2013-2014 energy and water savings initiatives support state policy goals and the Governor's call to action to help customers save water due to the drought. PG&E has supported water/energy nexus activities for many years. In fact, in 2010-2012, PG&E helped customers save approximately 95 GWh/year and approximately 14 MM therms/year for water-related EE measures. PG&E estimates that these water and energy initiatives saved 1.3 billion gallons of water in 2012 alone. See Attachment 6 for more details.

In 2015, PG&E intends to continue successful water/energy activities, which include, but are not limited to, helping customers adversely affected by drought manage energy use and costs, and leveraging existing program infrastructure to promote drought awareness, energy and water savings opportunities. These activities touch each customer sector including Residential, Commercial, Industrial, and Agricultural.

b) In 2015, PG&E plans to continue to drive opportunities to help customers save energy and water.

PG&E will continue to help customers manage energy use and costs, and will leverage existing program infrastructure to promote drought awareness, energy and water savings opportunities. For instance, in addition to the obvious water issues, many agricultural customers are facing higher energy usage needed to pump water to support their farms. PG&E will leverage the Advanced Pump Efficiency Program (APEP) to provide pump tests and repairs for agricultural customers. In addition, PG&E will focus on opportunities with water supply agencies and industrial customers to address opportunities for energy and water savings. For instance, PG&E will continue to leverage Large Integrated Audits (LIA) that include water related analysis, to identify energy and water saving opportunities for water agencies, and other customers. Including both the energy and water savings potential may help customers develop a better business case for capital investments.

Measures that save both water and energy will be an important focus. PG&E will continue incentives for water/energy measures, including, but not limited to, low pressure irrigation for agricultural customers, faucet aerators and showerheads for residential customers, commercial kitchen appliances for commercial customers, and steam traps and ozone laundry for industrial customers. PG&E will also scale completed, and successful water/energy focused ET projects into Statewide programs, and continue to evaluate opportunities for new ET projects that focus on water/energy.

PG&E will also ensure that Financing programs, including OBF and the new finance pilots, are integrated to support customer investments in these measures. To advance efforts to support drought affected customers in 2014, PG&E will seek expedited review of work papers and of custom parallel review process.

c) Enhanced cost-effectiveness would recognize embedded energy savings benefits and promote Water/Energy measures

To save water while maintaining a cost-effective portfolio, PG&E proposes a 10% adder to energy savings for water/energy measures. The 10% adder would serve as a placeholder for the upstream embedded energy savings associated with measures that save water. The request is for limited duration until the Water/Energy OIR is concluded, which is anticipated to provide a new methodology to measure cost effectiveness of water-energy measures.

To the extent these measures are more cost-effective with the 10% adder, PG&E will be able to shift funds toward incentives that support energy and water savings, and continue to promote these important water and energy savings initiatives throughout and beyond 2015.

C. Other Issues Addressed In Scoping Memo

The Scoping Memo indicates the Commission would consider the continuation of funding into 2016 and beyond and the issue of contract duration in Phase I of this proceeding. (Scoping Memo, § 3.2.2.) PG&E offers its perspectives on both issues.

1. Auto-bridge funding

The Commission should authorize continuation of the funding approved for 2015 until superseded by a Commission decision approving funding for the years 2016 and beyond. (Scoping Memo, § 3.2.2.) In D.09-09-047, the Commission approved an automatic month-to-month extension of funding if a decision on the next portfolio application is delayed. The authorized month-to-month extension was tied to the average spending during the last 12 months of the portfolio cycle, rather than the currently approved funding recovered in rates, and could result in a rate increase if spending is increased in the last year of a portfolio cycle, as often occurs:

> It is reasonable to amend Section II, Rule 12 of the Energy Efficiency Policy Manual to allow utilities to spend up to 15% of next-cycle funds within the final year of the program cycle after the next-cycle portfolio is approved, and to allow the average monthly level of expenditures for the final year of a budget cycle to continue on a month-to month basis until the next portfolio budget is approved (or as specified in the Commission decision for the next portfolio budget cycle).[41/]

It would bring more certainty to all market participants if the Commission revised the month-to-month rolling extension language in D.09-09-047 to state that the IOUs are authorized to continue to collect in rates the currently approved funding level for the EE portfolios until a subsequent funding decision is issued. This method is preferable to requiring rates to be re-calculated based on the average spending during the last year of the portfolio, and only authorized on a month-to-month basis. PG&E suggests that the language quoted above be modified as follows:

> It is reasonable to amend Section II, Rule 4 of the Energy Efficiency Policy Manual Version 5 to allow utilities to spend up to 15% of next-cycle funds within the final year of the program cycle after the next-cycle portfolio is approved, and to allow the energy efficiency budget and funding in rates to continue at the

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[41/] D.09-09-047, p. 363, COL 84. This provision was incorporated into the EE Policy Manual, pp. 11-12 at Section II, Rule 4.

then-current adopted level for each utility until the next portfolio budget is approved or as specified in the Commission decision for the next portfolio budget cycle. Any adjustment to rates needed to reflect the approved EE funding will be made in the utilities' next available rate change request.

2. Contract Authorization

The Scoping Memo states that Phase I will address whether to authorize the administrators "to enter into contracts that extend up to five years," which would be four years beyond the period for which rates are authorized.[42/] PG&E does not agree that this is an issue the Commission should address in a funding decision for 2015 only, given that the issue of longer-term contracting will be taken up in Phase II of the proceeding. PG&E notes that the changes proposed above to the auto-bridge mechanism would provide greater certainty to all market participants regarding continuation of EE funding at a pre-specified level during the review of future EE regulatory cases, enabling greater contracting and market stability.

D. Funding and Cost Recovery

1. Budget Request

As summarized in Table 5, below, PG&E is requesting a 2015 annual EE portfolio budget for its programs and EM&V of $396.2 million and a 2015 DR budget for IDSM activities of $3.3 million. PG&E's total 2015 portfolio showing of $409.6 million includes placeholder values for BayREN and MCE based on current authorized levels.[43/]

[42/] Scoping Memo, § 3.2.2(2).

[43/] TheBayREN placeholder value is $1.9 million less than BayREN's annual average EE budget adopted for the 2013-2014 portfolio in D.12-11-015, after an adjustment is made to remove $3.825 million tentatively approved for a BayREN finance pilot that was later disapproved in in D.13-09-044 (OP 23).

TABLE 5
PACIFIC GAS AND ELECTRIC COMPANY
PG&E's 2015 Portfolio Budget

Line		2015 Demand Response ($)	2015 Energy Efficiency ($)
1	PG&E Program Funds	3,264,000	379,296,250
2	EM&V		16,953,656
3	**Total PG&E**	**3,264,000**	**396,249,906**
4	BayREN (placeholder value)		11,371,375
5	MCE (placeholder value)		2,007,604
6	**Total Portfolio**		**409,628,884**

Once adopted by the Commission, PG&E will incorporate final 2015 EE budget values for BayREN and MCE in its total EE portfolio for balancing account treatment and cost recovery.

2. PG&E Should Retain Unspent Funds Into 2015 As Part of a 2013-2015 Portfolio.

PG&E presents its 2015 Proposal as a stand-alone year for cost effectiveness. However, PG&E requests that the Commission consider 2015 as the third year of the 2013-2015 Portfolio for the purposes of managing budgets, and reporting performance against goals, cost effectiveness and regulatory caps and targets.

The Scoping Memo requires Program Administrators to: "specify which part of the budget request can be met using unspent or underspent funding.[44]" As of January 2014, PG&E has returned all of its unspent uncommitted funds from cycles before 2010 to ratepayers, in compliance with Commission directives, with remaining commitments associated with EM&V project funding.[45]

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[44] Scoping Memo, p. 9.

[45] D.09-09-047; D.12-11-015; and PG&E Advice 3356-G-A/4176-E-A.

In accordance with the EE Decision and EE Compliance AL, funds from the 2010-2012 cycle committed for customer projects and/or contained within contracts signed during the 2010-2012 program cycle that are expected to be completed after 2012 have been carried forward into the 2013-2014 program cycle and beyond.[46/] The 2010-2012 carryover funds are primarily reserved for customer project incentives and EM&V. PG&E carried over $121 million ($83 million for customer projects and $38 million for EM&V), from the 2010-2012 cycle into 2013. In 2013, PG&E recorded $62 million against the carryover funds ($48 million for customer projects and $13 million for EM&V), leaving $34 million of committed carryover funds for customer projects that PG&E plans to spend in 2014 and beyond and $25 million to complete prior cycle EM&V. The 2010-2012 carryover funds are fully committed and not available to meet 2015 budget needs.

Program year 2015 should be considered the third year of a 2013-2015 three-year cycle. Funds authorized in D.12-11-015 for 2013-2014 and not spent by the end of 2014 would remain available in 2015. In a three-year cycle, it is typical for actual spending to be lower in the first year and ramp up in the second and third years. Funds authorized for 2013-2014 should remain available to continue the momentum built in this cycle, to meet obligations to projects and contracts initiated in 2013-2014, and allow PG&E to continue to accept new incentive applications through the end of 2014. It is premature to consider any of the authorized 2013-2014 funds available to reduce PG&E's 2015 request or reduce rates until the 2013-2105 cycle is completed.

Since the funding is separated into many program categories and tracked in one-way balancing accounts, Program Administrators are at risk if they overspend authorized funding levels in any category. As a result, Program Administrators are very cautious during the last year of a program cycle to avoid the financial risk inherent in overspending in any program category. This limits the amount of projects that ultimately could be commenced during the last year of a

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[46/] D.12-11-015, p. 95; PG&E Advice 3356-G-A/4176-E-A.

program cycle. The existing fund-shifting and balancing account rules result in some level of unspent funds at the end of each program cycle. The Commission recognized this by clarifying that committed and encumbered program cycle funds can be carried over to the next program cycle to complete ongoing projects and contract commitments. In addition, the Commission has requested parties suggest potential solutions to the ramp-up and down of spending currently associated with the program cycles in Phase II of this proceeding. PG&E looks forward to working with stakeholders to address this issue and thereby increase the stability of EE funding via the rolling portfolio proposals.

Accordingly, the Commission should allow PG&E to utilize all of its 2013-2014 funds into 2015, and to true-up unspent, uncommitted/encumbered funds after the end of the 2013-2015 program cycle and after the issue of rolling cycles is addressed in Phase II. A summary of carryover funds and commitments are shown in Appendix A, Tables 3, 4 and 5, and Appendix B.3. Savings associated with carryover funds are shown in Appendix B.2.

3. Caps and Targets

PG&E's 2015 Proposal satisfies the 10% administrative, 6% marketing and 4% EM&V budget caps adopted in D.09-09-047 and clarified in the EE Decision.[47] SW ME&O funding is excluded from the 6% marketing cap as adopted D.13-12-038 (p. 82) but is included in the total portfolio costs used in the denominator to calculate the caps and direct implementation non-incentive (DINI) target. PG&E's 2015 Proposal also satisfies the requirement that a minimum of 20% of its portfolio of programs be put out to competitive bid to third parties.[48] PG&E 2015 proposed budget includes DINI costs of 25.5%[49] without burdens benefit which compares to the

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[47] See EE Policy Manual, pp. 9-10.

[48] EE Policy Manual, p. 6.

[49] The DINI percentage is 25.5% without burdens benefit and 27.2% with burdens benefit.

DINI percentage of 26.1% identified in the Compliance AL. PG&E includes two summaries of caps and targets associated with the 2015 Proposal, one with burdens benefit and one without burdens benefit, in Appendix C Table 3.1.a and Table 3.1.b. PG&E anticipates that its future calculations of caps and targets will include burdens benefit associated with PG&E's EE labor costs.

4. Cost Recovery

PG&E proposes no change to its current cost-recovery mechanisms, including the continuation of the net benefit split adopted for the 2013-2014 EE portfolio in D.12-11-015, of 82% electric and 18% gas. In accordance with D.14-01-033, PG&E will recover MCE's EE funding solely from electric rates. Table 6, below, shows the allocation of 2015 EE and DR IDSM funding between electric and gas customers, subject to update based on Commission approval of 2015 EE budgets for BayREN and MCE.

TABLE 6
PACIFIC GAS AND ELECTRIC COMPANY
Allocation of Total 2015 Budget to Gas and Electric Customers

Administrator	Electric/Gas Split (%)	Electric ($)	Gas ($)	Total ($)
PG&E EE	82/18	324,924,923	71,324,983	396,249,906
BayREN EE	82/18	9,324,528	2,046,848	11,371,375
MCE EE	100/0	2,007,604		2,007,604
Total EE		**336,257,054**	**73,371,830**	**409,628,884**
PG&E DR	100/0	3,264,000		3,264,000

PG&E will continue to track its EE and DR IDSM expenditures and recover the EE and DR funding requests in rates utilizing existing balancing accounts, as shown in Table 7, below. This would include continuing payments to MCE, as directed by the Commission.

TABLE 7
PACIFIC GAS AND ELECTRIC COMPANY
2015 Proposed Cost Recovery ($)

Function	Expense Balancing Account	Recovery Balancing Account	2015 Proposed Funding In Rates	Funding In 2014 Rates	Change from 2014 Rates
EE Gas Surcharges	PPPEEBA	PPP-EE	73,371,830	73,733,199	(361,369)
EE Electric Former PGC	PEEBA	PPPRAM	119,445,548	119,445,548	0
EE Electric Procurement EE	PEEBA	PEERAM	216,811,506	216,450,137	(361,369)
Total			**409,628,884**	**409,628,884**	0
DR Distribution	DREBA	DRAM	3,264,000	3,264,000	0

Note: FFU& is not included in this table but will be added to electric funding when recovered in rates. The change from 2014 rates reflects recovery of MCE EE funding from electric customers pursuant to D.14-01-033.

If the GRC Partial Settlement is approved, PG&E will shift recovery of the burdens benefit associated with EE from distribution base revenue to EE public purpose program rates. The estimate of $21.6 million in EE burdens benefit will be updated based on a final GRC decision and does not change the level of 2015 EE funding in rates requested herein.

5. IDSM and Demand Response Funding Request

PG&E is committed to developing and promoting integrated-measure offerings that include EE, DR, or DG technologies. Similar to our strategy for 2013-2014, PG&E embedded the IDSM supported activities into its portfolio programs, as they have been since 2010. Appropriate budgets are leveraged to co-fund IDSM efforts to ensure that EE funds support the EE work. For the 2015 IDSM program, PG&E plans to maintain the current strategy. PG&E's proposed 2014 budgets for marketing, Energy Advisor, WE&T, and Continuous Energy Improvement (CEI) include funds for EE-related IDSM efforts.

PG&E's 2015 budget request includes PG&E's request for IDSM funding for DR in compliance with D.14-01-004. The DR request for IDSM funding is equal to the annual budget approved in Table 12 of the EE Decision (and corrected in D.13-09-046), as shown in Table 8.

TABLE 8
PACIFIC GAS AND ELECTRIC COMPANY
2015 Request for DR IDSM Budget ($)

Program Activity	2015 Budget Request
Technology Incentive	2,000,000
Large Integrated Energy Audits	1,264,000
Total DR IDSM Request	**3,264,000**

PG&E's DR IDSM program will continue program activities from 2013-2014, which include Technology Incentives and Integrated Energy Audits. As part of the Technology Incentives subprogram, PG&E will provide customer incentives for products that produce EE and DR benefits such as controls for AutoDR, educate customers on IDSM benefits, and review and verify IDSM projects.

Large Integrated Audits (LIA) have been steadily delivering a consistent message of integrated demand side management strategies and technologies to large non-residential customers. Strategies and technologies identified through LIAs include DR, AutoDR, EE, and now, through recently-incorporated load shifting using thermal, energy storage technologies. PG&E anticipates the volume of LIAs to increase in 2015. In addition, PG&E plans to continue to refine and expand the availability of other audit tools to medium-sized customers.

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V. CONCLUSION

PG&E respectfully requests that the Commission approve its above request for its Energy Efficiency Programs and Budgets, and Demand Response IDSM for 2015.

Respectfully submitted,

By *_/s/ Mary A. Gandesbery_*
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Dated: March 26, 2014

ATTACHMENT 1 – LIST OF APPENDICES

The appendices listed below will be available on PG&E's website by the close of business March 26, 2014. The documents may be accessed as follows:

1) Go to: htpp://apps.pge.com/regulation/
2) Click on "Search for Public Case Documents"
3) Select "Energy Efficiency 2015 and Beyond Rolling Portfolios" from the dropdown menu
4) Select 03/26/2014 and PGE as the party to narrow the search criteria
5) Click Search

As an alternative to accessing the appendices on PG&E's website, PG&E will provide a copy by diskette(s) of the appendices to any party upon request. Please direct a request for a copy of these materials to PG&E as follows: Josephine Wu, Case Coordinator, Regulatory Affairs, Regulatory Support and Metrics, Telephone: (415) 973-3414, Facsimile: (415) 973-3574, e-mail: JWWD@pge.com

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APPENDIX E: PG&E SAVINGS VALUES ADJUSTMENT FACTORS

ATTACHMENT 2 – 2013-2014 ACTIVITIES SUPPORTING PROPOSITION 39

PG&E's 2013-2014 portfolio offers a variety of programs and delivery channels to support schools. PG&E will continue comprehensive support for schools by leveraging its existing infrastructure to build a successful schools program in 2015, as described below.

Commercial Statewide Program: PG&E identified a Schools Lead tasked with internal and external coordination and collaboration of programs and solutions. The PG&E Schools Lead acts as a central contact to bring together the various schools-related offerings in PG&E's portfolio, as well as external resources, to ensure that the right resources are in place, at the right time, to support our schools customers. This type of support is vital to ensure that schools have guidance and understand the resources available to best manage the Proposition 39 implementation process.

PG&E's Statewide Commercial program offers a range of EE services and products to support schools customers such as benchmarking, technical support including energy audits and assessments, and deemed and customized rebates and incentives. In addition, the Savings by Design program is helping schools position themselves as ZNE-ready.

Also, PG&E's School Energy Efficiency program, a third-party program, provides audits, project analysis and support, and financial incentives to help public K-12 school districts identify and evaluate possible EE projects.

As part of the Business Energy Reports Emerging Technologies (ET) project, PG&E included a small number of schools to help them better understand their energy usage and find more ways to help schools save energy.

As part of the IDEEA 365 program, in 2013, PG&E launched three Analytics-Enabled Retro-commissioning (RCx) programs specifically tailored for schools customers. These programs offer no-to-low touch audits that use analysis of interval meter data to cost-effectively identify EE projects.

In early 2014, PG&E launched another IDEEA 365 program targeted at schools called the Energize Schools program. This program provides technical support and integrates education and energy savings opportunities to take advantage of the "teachable moment" created by Proposition 39.

Government and Community Partnerships: Many of our Government and Community Partnerships provide direct support to schools in their areas. For instance, the San Mateo County Energy Watch works with PG&E to develop a suite of solutions for K-12 schools, including benchmarking all of the schools in their areas. In addition, in close collaboration with PG&E, the San Mateo Energy Watch hosted a "Prop 39 Funding Workshop" in November 2013 to provide guidance and support to their schools community on how to best leverage and maximize Proposition 39 funding.

Additionally, PG&E supports the California Community Colleges/IOU (CCC/IOU) Statewide Energy Efficiency Partnership's efforts surrounding Proposition 39 funding for EE projects. PG&E has provided technical assistance to identify viable EE projects for Proposition 39 funding and additional EE incentives that can be leveraged to lead to more comprehensive EE retrofits.

Finance: PG&E's On Bill Financing (OBF) program is popular with school customers. In fact, the OBF program is on pace to make over $10 million in loans to public schools since program inception. The OBF program allows school customers to extend the reach of their energy budgets and maximize their potential energy savings.

Workforce, Education, and Training: PG&E's Workforce, Education, and Training (WE&T program) is an essential element of our schools' offerings. PG&E provides an extensive array of training and classes in the Energy Training Centers. PG&E's PowerPathway program trains and prepares individuals for high-demand positions at PG&E and throughout the energy sector. In addition, PG&E sponsors the Lighting Retrofit Information, Training and Education program (Light-RITE California), a new statewide training and certification program designed to ensure that lighting retrofits in public buildings achieve cost-effective energy savings.

Marketing, Education, and Outreach: PG&E has initiated marketing and outreach activities geared toward schools customers to educate them on PG&E IDSM offerings and Proposition 39-related activities. For instance, in collaboration with local County Offices of Education and Energy Watch Programs, PG&E hosted a series of Proposition 39 workshops and webinars for schools customers and their partner communities. PG&E website improvements provide more up-to-date information on PG&E's portfolio of offerings and resources, as well as provide useful links to external programs and Proposition 39 literature.[50/]

PG&E continues to educate PG&E Account Managers and other stakeholders regarding Proposition 39, providing regular bulletins and other printed resources such as the "Proposition 39 Tool Kit[51/]" that focus on our schools programs and Proposition 39. In addition, PG&E hosts Proposition 39 seminars and webinars for Account Managers, and regularly invites the broader stakeholder community to attend, such as school districts, county offices of education, and teachers, among others.

[50/] www.pge.com/schools
[51/] http://www.pge.com/en/mybusiness/save/rebates/bybusiness/prek12.page

ATTACHMENT 3 – 2013-2014 T&D PLANNING INTEGRATION ACTIVITIES

PG&E is pursuing integration of T&D planning with our demand-side management programs in order to defer specific capital investments while still providing safe and reliable electricity services to our customers. PG&E's T&D effort was initially focused on Demand Response (DR). In D.12-04-045, the Commission approved a $2.5 million pilot to explore and demonstrate the feasibility and viability of applying current and future demand-side capabilities to provide services that assist T&D with ongoing operations and planning. PG&E has subsequently added energy efficiency programs to this pilot.

(1) Objectives

PG&E's objectives with respect to T&D Planning Integration include: (1) developing the experience and tools needed to create and utilize customer- and location-specific integrated demand side management (IDSM) resources to assist with distribution capacity constraints; and (2) integrating PG&E's Customer Energy Solutions (CES) planning and operations activities with T&D planning and operations activities to increase probability of asset deferral and capture additional value from EE and DR program funds.

(2) Identifying Areas for T&D Locational Targeting

PG&E identified four substation capacity projects to target load reductions in 2014 and 2015. PG&E will evaluate additional substations for potential inclusion in the T&D locational targeting effort on an ongoing basis.

The substation capacity projects were selected based on the following criteria: (1) the substations' projected capacity overload was less than 2 MW; (2) the substation capacity expansion projects were not scheduled to begin construction until 2016, allowing two-years lead time to develop the IDSM projects to mitigate the projected overloading condition; (3) the substations identified have a reasonable probability of achieving the targeted load reductions during 2014-2015 based on an analysis of connected customer's loads; and (4) the substations

represent a diverse population of customers including large commercial and industrial, small and medium business and residential; the residential areas selected also include areas with notable populations of hard to reach populations including low income and non-English speaking customers. Meeting all the above criteria, PG&E chose the Lammers substation in Tracy, the Barton substation in Fresno, the Martell substation in Jackson, and the Bogue substation in Yuba City for the initial 2014-2015 effort.

(3) Current Activities

In 2013, PG&E completed a series of foundational activities including: (1) identifying initial candidate substations; (2) streamlining the process of deploying localized demand response; and (3) adding new targeted capabilities to marketing efforts. For example, using analytical tools, the marketing team can now analyze customers served by a specific feeder or substation and find those with energy usage patterns suggesting the best opportunity for energy efficiency savings. Using this information and data regarding the customers' industry group, PG&E can identify the partners and channels best positioned to target these customers and prioritize relevant products and technologies in marketing campaigns.

In 2014, PG&E is pursuing the following specific program actions: (1) increasing marketing and outreach for SmartAC™ by targeting customers with energy usage profiles showing significant air conditioning usage; (2) focusing energy savings assistance (ESA) and middle income direct install (MIDI) programs on customers connected to the targeted substations; (3) increasing localized marketing outreach for Energy Upgrade California (EUC) targeting the highest energy users; (4) focusing efforts of statewide, government partnership, and third-party programs, through identification of customers with promising energy savings potential, based on usage profiles; (5) increasing incentives in the targeted areas for peak load reductions; and (6) focusing engineering support to develop other IDSM (EE, DR, DG, and energy storage) solutions for the largest customers on each of the targeted substations.

ATTACHMENT 4 – STRANDED POTENTIAL OPPORTUNITIES

Despite the continued advancement in energy efficient technologies, PG&E notes the existence of pockets of "stranded potential" energy savings where the use of older, inefficient equipment persists. Below, PG&E discusses several specific technologies that continue operating below energy efficient standards, and how current rules are not able to motivate action to upgrade to the more energy efficient level. We have also included a customer economics example to illustrate the concept of "stranded potential."

Motors: For large (> 20 horsepower) motors, customers can avoid the capital expense of new motors by rewinding and repairing existing equipment, thus prolonging the life of inefficient equipment. The capital cost to upgrade motors is significant, while due to highly efficient code baselines, the energy savings and incentives available above code are limited.

Transformers: Low voltage transformers are used by all customers taking power at 480V in order to provide power to equipment powered at lower voltages, including lights that can be in the 200V range, as well as the standard 120V outlet that serves all common office equipment and plug loads. As these transformers are commonly oversized, they rarely need to be upgraded as building usage evolves and regularly operate well beyond their expected useful life. There is the added impact that all but the most recent transformers are relatively inefficient at partial loading, where they are commonly operated.

T12 Lighting: In investigating upgrading T12 fluorescent lighting equipment, building owners must now expand the capital requirement to include the installation of lighting sensors and controls. Although most new installations of T12 lighting are not allowed due to codes and standards, equipment owners can continue to maintain their existing systems either due to stockpiles of previously purchased T12 lamps or through the continued availability of certain T12 lamps. These include lower wattage lamps that meet federal standards, as well as categories like cold-rated and high output that are not covered under standards. All of these lamp categories continue to be used in standard interior space applications.

In the case of stranded potential, the above code portion of total savings is so minimal and the resulting incentive so low, that it proves difficult to motivate customer action. Further, Program Administrators and/or implementers are likely to focus resources on other savings potential opportunities.

Customer Example: Here, PG&E provides an example of the financial impact of a change in rules on a customer decision to replace their transformer. Similar examples could be provided for each technology. For one large California facility, replacing an original (1960 to 1990 era) 50 to 75 kVA building distribution transformer (for the plug-loads and other low-voltage lights/equipment) with a new current-code or very-high efficiency[52] transformer would cost an estimated $8,000 and achieve 9,000 kWh of annual savings, which would provide annual energy-cost savings benefits of approximately $1,200. If savings are calculated based on above code savings only, the Customized Retrofit incentive would be limited to $64. At this level of calculated savings and associated incentive, customers regularly remain in a do-nothing pattern and there is little motivation for an Administrator to promote the activity, given that the paperwork burden may exceed the value of the incentive, and the modest level of calculated above-code savings may not capture engineer or facility manager attention. Utilizing existing site conditions as a baseline for calculating savings and incentives would allow a $720 Customized Retrofit incentive.[53]

Using existing site conditions as an alternative baseline for these specific, targeted stranded potential opportunities would allow Program Administrators to target and obtain these incremental, otherwise unachievable EE savings.

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[52] Per the Consortium for Energy Efficiency (CEE) Distribution Transformer Initiative qualifying list, http://library.cee1.org/content/ci-distribution-transformers-initiative

[53] Illustrative savings based on commonly found conditions of transformers operating beyond their expected useful life with a loading factor of 15%. Energy-cost savings for similar buildings can vary from $500-1200 based on reference load factor and as-found transformer efficiency.

ATTACHMENT 5 – 2013-2014 ENERGY UPGRADE CALIFORNIA ACTIVITIES

PG&E is committed to the success of Energy Upgrade California™ Home Upgrade (Home Upgrade), and has been focused on continuous program improvement since launch in 2010. Throughout 2014 and 2015, PG&E will continue to identify opportunities for improvement, coordinating closely with stakeholders throughout the process, as has been the practice since the development of the initial program. PG&E engagement with stakeholders has included direct engagement with contractors and raters, and with the EUC Home Upgrade Working Group, Efficiency First California NorCal Monthly Forums, Annual Contractor Exchanges, Quarterly Regional Forums, and through an email box for program improvement suggestions. While not exhaustive, PG&E describes below some of the improvements already underway.

Opening the software market to improve contractor and customer usability and predictive accuracy. PG&E is leading this joint-IOU effort to expand the allowable software modeling tools for Advanced Home Upgrade, which is expected to be completed in 2014. This effort is expected to help reduce administrative burden on contractors, to improve the customer sales and engagement process, and to improve energy savings prediction accuracy. An expansion of software modeling tools also opens the door for future program design enhancements, including the possibility of a pay-for-performance model incentive and improved real-time evaluation.

New strategies for savings from plug loads, appliances, and lighting. PG&E has adopted new strategies to better integrate these additional types of savings in Home Upgrade, including expanding the allowable measures in Advanced Home Upgrade to capture savings from efficient pool pumps, energy efficient refrigerators, and high efficiency hardwired lighting. Plans also include a new Programmable Communicating ("Smart") Thermostat measure, after it has been launched and proven within the Residential Plug Load Appliance (PLA) program, to help drive behavior change, and address capturing savings and integration with demand response

rates. Efforts are also underway with home improvement retailers to offer Home Upgrade, in addition to PLA products, through that channel. In general, PG&E closely coordinates both the PLA and behavior offerings with Home Upgrade to maximize customer engagement and benefit. For example, in early 2014 we used Home Energy Reports as a tool to market Home Upgrade to hundreds of thousands of customers who are good candidates for the program. While Home Upgrade is clearly a key component of addressing energy use in existing residential buildings, PG&E believes Home Upgrade is part of a portfolio approach that includes retail/manufacturer engagements to address plug loads and integrated home energy management solutions.

Streamlining reporting requirements. Building on 2013 improvements, PG&E continues to work closely with participants to identify and resolve application and process challenges through improved desktop review practices and additional training to contractors. In 2013, PG&E reduced the number of returned applications and resubmissions by 11%. The process for Advanced Home Upgrade will be further simplified with more software products allowed and through the use of Home Performance XML (HPXML) to streamline and standardize data collection.

Targeting and outreach to specialty contractors. PG&E has been targeting and making other program modifications to better involve specialty contractors in Home Upgrade. PG&E will continue to focus on better integrating Home Upgrade with Residential HVAC programs, and greater cross-participation of contractors. Additionally, PG&E plans to expand outreach to specialty contractors such as insulation, plumbing and fenestration experts who can leverage participating raters to submit projects through the program. This model has shown early success in Home Upgrade as demonstrated by the rapid increase in volume from about 30 jobs in 2013 to over 150 in the first few months of 2014.

Targeting older homes. PG&E's research has identified the customer attributes linked to propensity to participate and the building attributes (such as age of the home) tied to higher potential savings. This analysis has been used to determine target regions for marketing and outreach efforts. It is important to note that buildings do not undergo upgrades; customers do.

As such it is important that targeting address both customer propensity to participate and saving opportunity. To-date, some of the most effective marketing is done by program participants. PG&E plans to expand its marketing co-funding efforts, including making targeting data available for use by the High Performing contractors[54] to help maximize their efforts.

Market Transformation. Led by San Diego Gas & Electric Company, and working with a stakeholder Program Review Group, program administrators have engaged a market transformation consultant for Home Upgrade, as directed by the Commission in D.12-11-015 (p. 23). The consultant will help program administrators develop a roadmap to guide future program developments. These program developments and recommendations will evolve throughout the course of 2014, building on the program improvement progress made in 2013.

[54] As defined by the statewide protocols developed, filed and approved via PG&E AL3376-G-A/4207-E-A filed July 15, 2013.

ATTACHMENT 6 – 2013-2014 WATER ENERGY NEXUS ACTIVITIES

PG&E continues to focus on water and energy savings opportunities that support state policy goals and the Governor's call to action to help customers save water due to the drought. While not exhaustive, PG&E provides an overview of current water/energy focused initiatives in 2013-2014 below.

In 2014, PG&E created a task force focused on developing and communicating targeted opportunities to help our customers respond to the drought. This task force will continue into 2015, and remain focused on identifying the right water and energy savings opportunities for our customers.

PG&E offers a variety of initiatives to help residential, commercial, industrial, and agricultural customers save energy and water. Products focused on energy efficient appliances, irrigation equipment, and processes all save energy as well as water, and are offered as downstream incentives across customer segments and geographical regions through PG&E programs.

PG&E's agreement with Bay Area water agencies allows PG&E and the water agencies to offer a combined rebate of up to $200 for energy efficient clothes washers. In 2013, PG&E's portion of the rebates was approximately $3.4 million. In addition, through PG&E's Moderate Income Direct Install (MIDI) program, PG&E is co-marketing with the Santa Clara Valley Water District's Water Wise House Call Program to install faucet aerators and low-flow showerheads for moderate income households.

PG&E has also launched new Third Party programs to expand adoption of water and energy saving technologies. PG&E's agricultural customers benefit from programs like the IDEEA 365 Low Pressure Drip Irrigation Direct Install program, launched in 2013, that help customers convert high-pressure sprinklers to low-energy drip irrigation. PG&E's Third Party Food Processing program is an important program for Industrial customers in saving water and energy. Furthermore, PG&E has continued to expand its partnerships and program offerings for water agencies. In 2014, PG&E launched the Water Infrastructure and System Efficiency

(WISE) program, an IDEEA 365 program, which works with water agencies to identify water/energy savings opportunities in water pumping, treatment and distribution end uses.

Additionally, PG&E implemented several ET projects, partnering with water agencies and other stakeholders, such as CSU Fresno and California Polytechnic State University, San Luis Obispo. For example, PG&E has partnered with East Bay Municipal Utility District (EBMUD) on Home Water Conservation Reports and an Energy Intensity Study. The Home Water Conservation Reports project is exploring the extent to which monthly information on residential water consumption, benchmarking against similar households, and targeted recommendations for efficiency/conservation measures provides energy savings along with the water savings. The Energy Intensity Study analyzed the embedded energy variability within EBMUD's facilities. Other ET projects include developing a water agency audit template to determine a basic methodology to benchmark and identify efficiency opportunities at small and medium sized water agencies. Building on some of these results, PG&E is currently engaged in a project to determine water and energy savings potential from water leak detection and mitigation services at some of the rural water agencies which will be among the most affected by the 2014 drought. The Combined Water and Energy Agricultural Irrigation Evaluation sought to develop a methodology to conduct combined distribution uniformity and pump systems tests for agricultural irrigation systems. PG&E also implemented an ET project focused on low pressure micro irrigation design that tested micro emitters, valves and filters for micro-irrigation system optimization. In addition, in partnership with California State University Fresno, PG&E supports the Agricultural Water and Energy Center through its ET program.