

September 4, 2018

**Advice 4011-G/5375-E**

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

**Subject: PG&E's 2019 Energy Efficiency Annual Budget Advice Letter in  
Compliance with Decisions 15-10-028 and 18-05-041**

**I. Purpose**

Pacific Gas and Electric Company (PG&E) hereby submits its 2019 energy efficiency (EE) portfolio budget (2019 EE Budget) by Tier 2 advice letter in compliance with the *Decision Re Energy Efficiency Goals for 2016 and Beyond and Energy Efficiency Rolling Portfolio Mechanics*, the "Rolling Portfolio Decision" (D.15-10-028),<sup>1</sup> the *Decision Addressing Energy Efficiency Business Plans* (D.18-05-041),<sup>2</sup> and guidance from the California Public Utilities Commission (CPUC or Commission) Energy Division (ED) staff (Staff).

PG&E requests that the Commission approve its 2019 EE Budget of \$343,196,967, effective as of January 1, 2019, for PG&E's approved EE programs.

**II. Background****A. Regulatory Requirements**

The Rolling Portfolio Decision requires each EE program administrator (PA) to file an advice letter with a budget for the next calendar year's EE portfolio by the first business day of September each year.<sup>3</sup>

Subsequently, the Commission issued the *Decision Addressing Energy Efficiency Business Plans* (D.18-05-041), which established September 4, 2018, as the deadline for the 2019 Annual Budget Advice Letter (ABAL). The decision also adopted the budgets set forth in the Business Plans for 2018-2025.

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<sup>1</sup> D.15-10-028, Ordering Paragraph (OP) 4.

<sup>2</sup> D.18-05-041, OP 41-47.

<sup>3</sup> D.15-10-028, OP 4.

PG&E's proposed 2019 EE budget of \$343,196,967 includes authorized funding amounts for Marin Clean Energy (MCE) and the Bay Area Regional Energy Network (BayREN).

## **B. Filing Requirements**

D.15-10-028 requires each PA's advice letter to contain:

- A portfolio cost-effectiveness statement; and
- Application summary tables with forecast budgets and savings by sector and program/intervention.

Furthermore, D.18-05-041 provided additional guidance to PAs regarding ABAL submission. D.18-05-041 requires that the investor-owned utilities' (IOUs) ABALs include the following:

- A forecasted Total Resource Cost (TRC) test score that meets or exceeds 1.25, except during program years 2019-2022, when the forecasted TRC must meet or exceed 1.0;
- Forecasted energy savings goals that must meet or exceed Commission-established savings goals for each IOU; and
- A forecasted budget that must not exceed the PA's annual budget in the approved Business Plans, or (if applicable) the revised annual budget in this ABAL.<sup>4</sup>

If a PA's ABAL submitted for program year 2019 through program year 2022 fails to meet the criteria above, the PA is to hold a workshop to provide transparency into the associated challenges and receive feedback that would potentially aid the PA in revising its Business Plan pursuant to D.15-10-028 for Commission approval.<sup>5</sup>

## **C. Contents of this Filing**

PG&E's advice letter is organized as follows:

- Budget
- Goals
- Cost-Effectiveness
- Cost Recovery
- Prior Years' Unspent Funds

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<sup>4</sup> D.18-05-041, p. 133

<sup>5</sup> D.18-05-041, p. 134-135

- 2019 Program Changes
- Expectations for Reported and Evaluated TRC and PAC
- Progress Toward Business Plan Objectives and Challenges
- Evaluation, Measurement & Verification (EM&V)
- 2017 Metrics
- Budget and Savings True-Up

In addition to the information above, PG&E's 2019 ABAL includes the following materials:

- Attachments:
  - Attachment 1 – California Energy Data and Reporting System (CEDARS) Filing Confirmation
  - Attachment 2 – Appendices
  - Attachment 3 – Caps and Targets Tables
  - Attachment 4 – Program Closures
  - Attachment 5 – Sector Level Metrics: Progress to Date

### **III. Discussion**

#### **A. Budget**

PG&E's 2019 EE budget of \$343 million strikes a balance between portfolio requirements including, but not limited to, cost-effectiveness thresholds, savings goals, other policy objectives, and compliance with authorized budget caps and targets. PG&E proposes significant modifications to its energy efficiency portfolio for 2019. These modifications are oriented toward achieving a portfolio TRC of at least 1.0, meeting annual savings goals, and continuing the transition to the Commission's new statewide and third-party model for energy efficiency.

While PG&E's forecasted TRC is 1.07 without Codes and Standards (C&S), the associated program and measure mix and corresponding TRC will likely change in 2019. Commission-issued dispositions, Database for Energy Efficiency Resources (DEER) updates, custom project refinements, and modifications to other key inputs will all impact portfolio savings and cost-effectiveness. As cost-effectiveness inputs change, PG&E will continue to evaluate the available mix of measures and make portfolio adjustments as necessary. This may include, but is not limited to, fund shifting, measure and program elimination, and modifications to rebate levels.

Table 1 provides PG&E's 2019 EE Budget.

**Table 1: PG&E Total 2019 Energy Efficiency Budget<sup>6</sup>**

| <b>Program Name</b>   | <b>2019 Budget (\$)</b> |
|---|-------------------------|
| Residential   | 88,269,075              |
| Commercial  | 68,402,537              |
| Agricultural  | 14,477,981              |
| Industrial  | 24,785,481              |
| Public  | 40,669,461              |
| Codes & Standards   | 20,876,988              |
| Financing   | 6,504,117               |
| On-Bill Financing (OBF) Loan Pool   | 13,500,000              |
| Emerging Technologies   | 7,760,943               |
| Workforce Education & Training  | 9,741,738               |
| <b>Programs Subtotal</b>  | <b>294,988,322</b>      |
| Evaluation, Measurement, and Verification (EM&V) (PG&E only) <sup>7</sup> | 12,291,180              |
| <b>PG&amp;E Subtotal</b>  | <b>307,279,502</b>      |
| BayREN  | 24,538,542              |
| MCE   | 8,545,833               |
| 3C-REN  | 2,833,090               |
| <b>Subtotal (Non-PG&amp;E)</b>  | <b>35,917,465</b>       |
| <b>Total EE Budget</b>  | <b>343,196,967</b>      |

<sup>6</sup> Statewide Marketing, Education and Outreach (SW ME&O) was requested in A.12-08-007 and is not reflected in the total EE budget.

<sup>7</sup> BayREN, MCE, and 3C-REN's budgets include both EM&V funds requested for their use and EM&V funds allocated to the CPUC.

Table 2 provides an overview of PG&E's 2019 forecasted portfolio budget, savings, and cost-effectiveness.

**Table 2: PG&E 2019 Budget and Savings Summary**

| Sector  | Program Year<br>(PY) Budget                               | PA PY FORECAST ENERGY SAVINGS (Net) |                   |                |
|---|---|-------------------------------------|-------------------|----------------|
|   |   | PA forecast<br>kWh                  | PA forecast<br>kW | therms<br>(MM) |
| Residential   | \$88,269,075  | 206,699,293                         | 41,571            | 7.3            |
| Commercial  | \$68,402,537  | 92,335,828                          | 16,360            | 4.7            |
| Industrial  | \$24,785,481  | 36,750,463                          | 4,424             | 2.5            |
| Agriculture   | \$14,477,981  | 29,846,734                          | 9,083             | 0.5            |
| Emerging Tech   | \$7,760,943   | na                                  | na                | na             |
| Public  | \$40,669,461  | 50,798,624                          | 7,581             | 0.4            |
| WE&T  | \$9,741,738   | na                                  | na                | na             |
| Finance   | \$6,504,117   | 63,333,333                          | 12,033            | 3.9            |
| OBF Loan Pool   | \$13,500,000  | na                                  | na                | na             |
| <b>IOU Subtotal</b>   | <b>\$274,111,334</b>                                      | <b>479,764,276</b>                  | <b>91,052</b>     | <b>19</b>      |
| <b>ESA Savings</b>  |   | <b>96,463,923</b>                   | <b>13,327</b>     | <b>(0.3)</b>   |
| <b>IOU Total Program Savings (w/out C&amp;S)</b>                            |   | <b>576,228,199</b>                  | <b>104,379</b>    | <b>19</b>      |
|   | <b>CPUC Program Savings Goal</b>                          | <b>524,000,000</b>                  | <b>100,000</b>    | <b>19</b>      |
|   | <b>Forecast savings as % of CPUC Program Savings Goal</b> | <b>110%</b>                         | <b>104%</b>       | <b>101%</b>    |
| Codes and Standards   | \$20,876,988  | 659,736,442                         | 150,796           | 16             |
| IOU EM&V  | \$12,291,180  |                                     |                   |                |
| IOU PY Spending Budget Request <sup>1</sup>                                 | \$307,279,502   |                                     |                   |                |
| (LESS) IOU Uncommitted and Unspent Carryover Balance <sup>2</sup>           | \$104,563,269   |                                     |                   |                |
| IOU PY Budget Recovery Request <sup>3</sup>                                 | \$202,716,233   |                                     |                   |                |
| IOU Authorized PY Budget Cap (D.18-05-041) <sup>4</sup>                     | \$388,989,738   |                                     |                   |                |
| MCE PY Budget Recovery Request (excl. CCA Uncommitted/Unspent Carryover)    | \$8,545,833   |                                     |                   |                |
| BayREN PY Budget Recovery Request (excl. REN Uncommitted/Unspent Carryover) | \$24,538,542  |                                     |                   |                |
| 3C-REN PY Budget Recovery Request (excl. REN Uncommitted/Unspent Carryover) | \$2,833,090   |                                     |                   |                |
| <b>Total PA (IOU+CCAs+RENS ) PY Recovery Budget</b>                         | <b>\$238,633,698</b>                                      |                                     |                   |                |
| IOU Forecast PY TRC   | 1.07  |                                     |                   |                |
| IOU Forecast PY PAC   | 1.47  |                                     |                   |                |
| <b>For reference only</b>   |   |                                     |                   |                |
| MCE EM&V PY Budget  | \$341,833   |                                     |                   |                |
| BayREN EM&V PY Budget   | \$981,542   |                                     |                   |                |
| 3C-REN EM&V PY Budget   | \$113,324   |                                     |                   |                |
| EM&V PY PA Budget total   | \$13,727,879  |                                     |                   |                |

<sup>1</sup> This is the amount by which Statewide 25% requirement will be measured, and what the IOU intends to spend in the PY, including carryovers.

<sup>2</sup> The balance of unspent uncommitted reflects the total unspent uncommitted starting Jan 1, 2018 through Dec 31 of current year (PY-1). Because each ABAL is filed in Q3, this unspent uncommitted amount is an estimate for the year in which the ABAL is filed.

<sup>3</sup> The amount of funds to be collected (budget recovery) for the Program Year

<sup>4</sup> The IOU Authorized PY Budget Cap uses the "Total Program" budget from PG&E's approved Business Plan Table 1.5, plus an EM&V budget of \$15,559,690, or 4% of the IOU Authorized PY Budget Cap.

## 1. Integrated Demand Side Management (IDSM)

Each IOU PA must set aside a minimum of \$1 million for the residential sector and a load-share-proportional fraction of \$20 million for the commercial sector from each IOU PA's IDSM budget for testing and deployment of integration strategies.<sup>8</sup> In consultation and agreement with the California IOUs, PG&E will budget \$8 million of the required \$20 million for the commercial sector. With an additional \$1 million of IDSM budget for the residential sector, PG&E's budget for IDSM activities will total \$9 million.

These funds are budgeted within existing residential and commercial programs – specifically, the Middle Income Direct Install (PGE210011), Pay for Performance Pilot (PGE210010) and the Commercial Calculated Incentives (PGE21011) programs. PG&E previously operated a distinct program for IDSM activities, the Statewide DSM Coordination and Integration program (PGE21081); this program is being sunset in favor of embedding IDSM activities into existing resource programs, with the goal of enabling increased uptake and adoption of IDSM solutions.

Discussion of specific program activities to support IDSM can be found in Section F: 2019 Program Changes. Discussion of IDSM cost recovery and the funding split between Energy Efficiency and Demand Response can be found in Section D: Cost Recovery.

### B. Goals

Table 3 provides PG&E's forecast of energy savings and demand reduction for its 2019 EE portfolio. Note that low-income savings are embedded within the CPUC's Incentive Program goals in D.17-09-025; thus, PG&E's savings from the Low-Income Energy Savings Assistance Program (ESA) are included when comparing 2019 forecasted savings with the CPUC Incentive Program goals.<sup>9</sup>

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<sup>8</sup> D.18-05-041, OP 10

<sup>9</sup> ESA savings are embedded in the EE Incentive Program goals per D.17-09-025, p. 37 footnote 72.

**Table 3: PG&E Targets Compared to CPUC Goals**

| 2019 Savings Component   | Annual Net GWh | Net MW      | Annual Net MMTM |
|--|----------------|-------------|-----------------|
| <b>Portfolio Forecast</b>  |                |             |                 |
| 2019 Energy Efficiency (EE) Portfolio Forecast   | 480            | 91          | 19              |
| 2019 Codes and Standards (C&S) Forecast  | 660            | 151         | 16              |
| 2019 ESA Program Forecast <sup>10</sup>  | 96             | 13          | -0.3            |
| <i>Subtotal EE + ESA</i>   | <b>576</b>     | <b>104</b>  | <b>19</b>       |
| <i>Subtotal EE + ESA + C&amp;S</i>   | <b>1236</b>    | <b>255</b>  | <b>36</b>       |
| <b>Goals</b>   |                |             |                 |
| <b>EE Incentive Program Goals<sup>11</sup></b>   | 524            | 100         | 19              |
| <b>Codes and Standards Goals</b>   | 555            | 122         | 14              |
| <b>Combined EE &amp; C&amp;S Goals</b>   | <b>1079</b>    | <b>222</b>  | <b>33</b>       |
| <b>% of Goal</b>   |                |             |                 |
| <b>2019 Forecast relative to Incentive Goal</b>  | <b>110%</b>    | <b>104%</b> | <b>101%</b>     |
| <b>2019 Forecast relative to Total Incentive Programs and Codes and Standards Goal</b> | <b>115%</b>    | <b>115%</b> | <b>108%</b>     |

### C. Cost-Effectiveness

Table 4 provides the TRC test and Program Administrator Cost (PAC) test for its 2019 EE portfolio.

**Table 4: PG&E 2019<sup>12</sup> Cost-Effectiveness Statement**

| Cost-Effectiveness Scenario   | 2019 TRC Forecast | 2019 PAC Forecast |
|---|-------------------|-------------------|
| Total portfolio including market effects and the Energy Savings and Performance Incentive (ESPI) award, and excluding C&S | 1.07              | 1.47              |
| Total portfolio including market effects, ESPI award, and C&S   | 1.28              | 3.71              |

<sup>10</sup> PG&E's 2019 ESA forecasted savings are estimates and subject to change.

<sup>11</sup> ESA savings are embedded in the EE Incentive Program goals per D.17-09-025, p. 37 footnote 72.

<sup>12</sup> The 2019 CET User Interface from CEDARS was used to calculate cost-effectiveness.

TRC and PAC calculations include costs for:

- Resource and non-resource programs, including Financing and Workforce Education and Training (WE&T) programs;
- PG&E’s portion of Statewide DSM;
- EM&V; and
- An estimated \$17 million for PG&E’s ESPI award in 2019.<sup>13</sup>

TRC and PAC calculations exclude:

- Emerging Technologies (ET) program costs;
- Statewide (SW) ME&O costs;
- BayREN and MCE benefits and costs;<sup>14</sup>
- Financing costs including credit enhancements approved for the Statewide Financing Pilots in D.13-09-044; and
- ESA program benefits and costs.

For reference, Equation 1 gives the algebraic formulation of how these inputs fit into the TRC equation employed for EE in California. Figure 1 displays input-level breakouts of portfolio TRC.<sup>15</sup>

**Equation 1:**

$$TRC = \frac{NPV \text{ of } (NTG + ME) \times \text{Lifecycle Benefits of Avoided Electricity and Gas}}{NPV \text{ of Admin} + \text{Mktg} + \text{EM\&V} + \text{Non-Resource} + \text{ESPI} + \text{Imp} + (1 - NTG) \times \text{Incent} + \text{Measure Cost} \times (NTG + ME)}$$

Admin costs
Marketing costs
EM&V
Non-Resource Programs
ESPI (shareholder incentive)
Implementation cost
Incentives paid to free riders
Measure costs incurred by non-free riders, including Market Effects, or ‘Spillover’

<sup>13</sup> PG&E’s \$17 million ESPI award estimate for 2019 is based on historical trends of ESPI awards from the past few years with an expected reduction for 2019.

<sup>14</sup> D.12-11-015

<sup>15</sup> Figures 1 - 4 were created based on the program-level outputs of the Cost Effectiveness Tool summed to the portfolio level. The NTG used was a weighted average based on lifecycle kWh and Therms savings. Admin, Marketing, and Implementation include resource program costs only to avoid duplicative counting with these fields in the non-resource program budgets. Implementation costs include \$85.6 million based on the definition in The Energy Efficiency Policy Manual (Version 5, Appendix F) and \$10.6 million associated with other customer support costs, for instance spending for the Home Energy Reports (subprogram of PGE21001). These figures do not include Codes and Standards benefits and costs.



**Figure 1. 2019 PG&E Portfolio Forecast TRC Parameters**

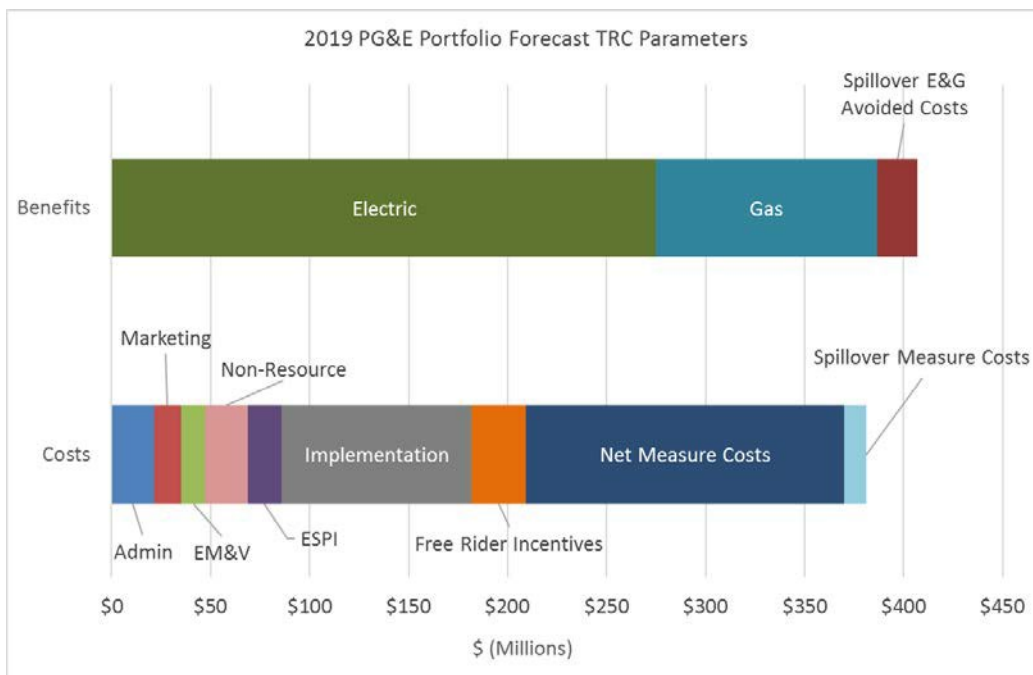


Figure 1 demonstrates that electric benefits account for the large majority of total TRC benefits and that measure costs account for 45% of forecast portfolio TRC costs.

Figure 2 displays a portfolio-level sensitivity analysis for select TRC inputs. In this figure, the x-axis represents percentage change in a TRC input and the y-axis shows how the TRC would change as a result. The 0% midpoint represents the current portfolio forecast. At the left side of the graph, -100% equates to eliminating a TRC input altogether. For instance, if no measure costs were included, the portfolio TRC would be forecast near 2.0. Similarly, the rightmost points, at +100%, represent a doubling of that input. For example, if incentive spending was doubled, the TRC would fall by 0.07 to 1.0.

**Figure 2. 2019 PG&E Portfolio Forecast TRC Sensitivity Analysis**

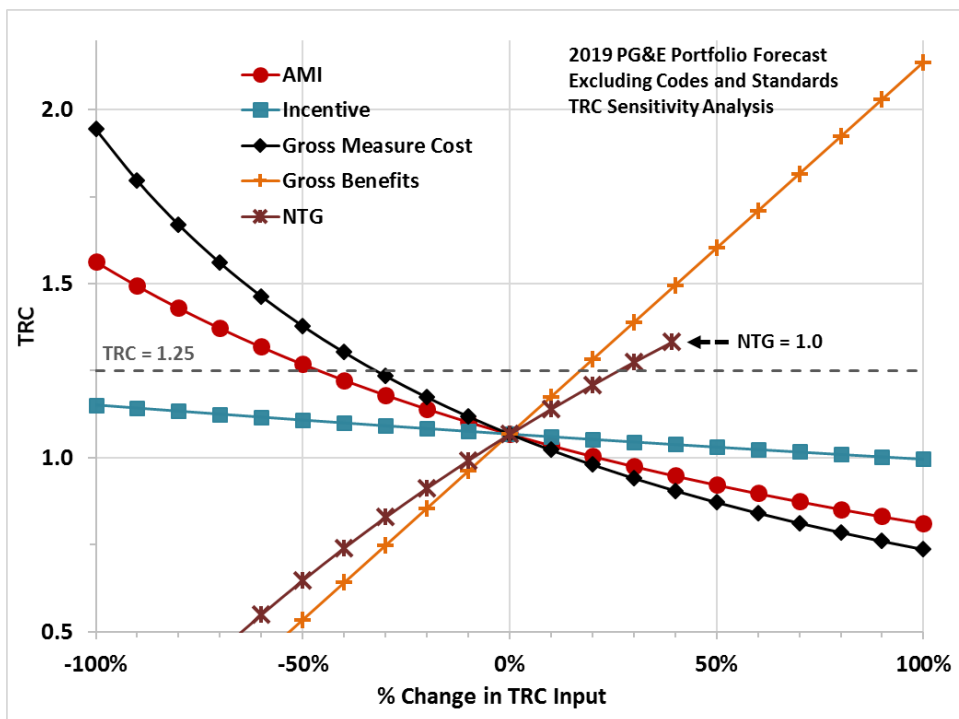


Figure 2 demonstrates that PG&E’s portfolio TRC is most sensitive to measure costs and total benefits. Net-to-Gross (NTG) and collective spending on Administration, Marketing and Implementation (AMI) are less significant but still important TRC drivers. In contrast, portfolio TRC is relatively insensitive to incentive spending.

Figure 3 displays input-level breakouts of portfolio PAC. For reference, Equation 2 gives an algebraic formulation of how these inputs fit into the PAC equation employed for EE in California.

**Equation 2:**

$$PAC = \frac{NPV\ of\ (NTG + ME) \times\ Lifecycle\ Benefits\ of\ Avoided\ Electricity\ and\ Gas}{NPV\ of\ \underbrace{Admin\ costs}_{Admin\ costs} + \underbrace{Marketing\ costs}_{Marketing\ costs} + \underbrace{EM\&V}_{EM\&V} + \underbrace{Non - Resource\ Programs}_{Non - Resource\ Programs} + \underbrace{ESPI\ (shareholder\ incentive)}_{ESPI\ (shareholder\ incentive)} + \underbrace{Implementation\ cost}_{Implementation\ cost} + \underbrace{Incentives}_{Incentives}}$$

**Figure 3. 2019 PG&E Portfolio Forecast PAC Parameters**

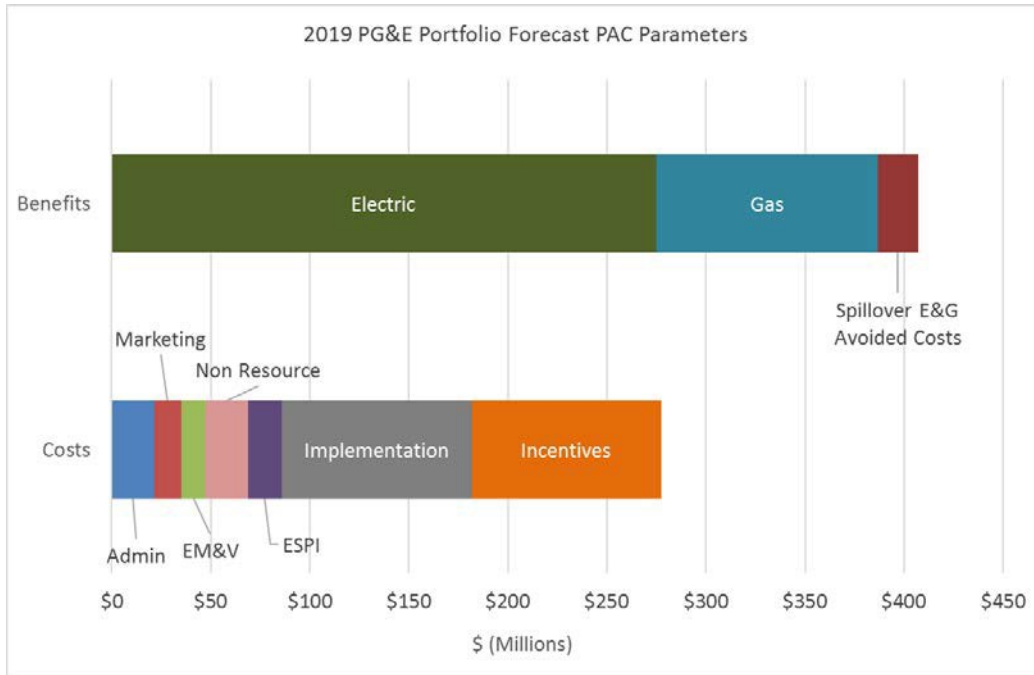


Figure 3 demonstrates that benefits are equivalent to those in the TRC analysis. However, in the PAC calculation, Incentives and Implementation are the largest costs.

As in Figure 2, Figure 4 displays a portfolio-level sensitivity analysis for select PAC inputs.

**Figure 4. 2019 PG&E Portfolio Forecast PAC Sensitivity Analysis**

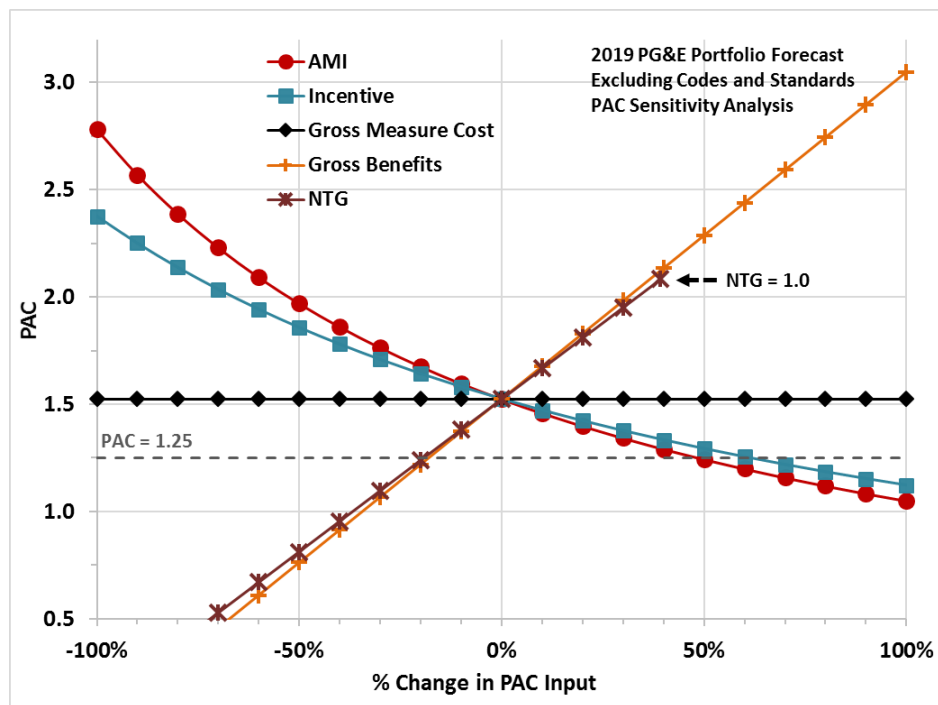


Figure 4 demonstrates that, compared to the TRC, the PAC is far more sensitive to AMI spending. The PAC is also more sensitive to NTG and incentive spending. However, because the PAC does not include measure costs, changes in measure cost yield no change in the PAC.

**1. Cost-Effectiveness Challenges and Recommendations**

There are several challenges that prevent forecasting an EE portfolio that meets a 1.25 TRC while achieving energy savings targets and policy goals. These challenges are due in large part to: a) structural aspects of California’s cost-effectiveness framework and b) market-based factors (e.g., changes to avoided costs). Because of these challenges, PG&E is not currently forecasting a portfolio that meets a 1.25 TRC.<sup>16</sup>

**Cost-Effectiveness Framework Challenges**

Several of the most significant TRC and PAC inputs are also the most uncertain and rely on subjective rulesets. In particular, treatment of measure costs, use of outdated or uncertain NTG ratio estimates, limited, outdated, or uncertain load shapes, and uncertain effective useful life (EUL) estimates all have significant impacts on portfolio-level TRC.

<sup>16</sup> Per D.18-05-041 p. 135-137, forecasting between a 1.0 and 1.25 during the ramp years (2019-2022) will require the PA to engage stakeholders and develop a plan to forecast a TRC of 1.25 by 2023.

### i. Treatment of Measure Costs and Measure Cost Governance

Measure costs<sup>17</sup> (including “spillover” measure costs) accounted for an estimated 59% of PG&E’s 2017 TRC costs, and represent 45% of TRC costs in the 2019 portfolio forecast presented here. For many programs, participating customer investment comprises a high fraction of the reported measure costs. Despite downward pressure that measure costs place on the TRC, programs that leverage incentives to encourage a high degree of private investment are often best able to achieve savings goals and policy objectives at the lowest ratepayer cost.

Along with utility incentives, customers are often motivated to invest in EE projects and measures for non-energy reasons.<sup>18</sup> To encourage participation, PG&E routinely promotes these non-energy impacts in its program marketing, driving participant investments in non-EE benefits that are not appropriate to incorporate into the TRC. Recent evaluations<sup>19,20</sup> show that participating customers in the Energy Upgrade California program value non-energy factors as much or more than energy savings. These non-energy factors include home comfort, improved indoor air quality, health benefits, and improved home resale value, among others. Based on these results, PG&E is updating measure costs within programs that achieve deep building savings and increase building value, to eliminate associated non-energy private investment. These programs include:

- Deep Retrofit programs:
  - Energy Upgrade California (PGE21004)
  - Multifamily Upgrade Program (PGE21003)
- New Construction programs:
  - Residential New Construction (PGE21005)
  - California New Homes Multifamily (PGE21007)
  - Savings by Design (PGE211025)

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<sup>17</sup> Depending on the measure application type, and the associated measure baseline, measure costs can embody the full labor and material cost to install a technology or service (Full Measure Cost; FMC), or the incremental cost beyond a code or industry standard practice technology or service (Incremental Measure Cost; IMC). Across the EE portfolio, a portion of measure costs is covered by incentives, and a portion is covered by participating customers. For example, a program may offer a customer a \$2.00 rebate to install a \$6.00 LED instead of a \$2.50 CFL in a replace-on-burnout scenario. In this hypothetical case the IMC would  $\$6.00 - \$2.50 = \$3.50$ . The incentive covers \$2.00 of the IMC and the participant covers \$1.50 of the IMC. A discussion of full vs. incremental costs is included in D.06-06-063, p.64, footnote 60, while Table 1 of Resolution E-4818 clarifies the baselines for different measure application types that inform applicable cost types.

<sup>18</sup> *PY2013-2014 California Statewide Residential and Nonresidential Spillover Study*, Opinion Dynamics and Itron, Inc., 2017. CALMAC ID: CPU0186.01

<sup>19</sup> *PG&E Whole House Program: Marketing and Targeting Analysis*. Opinion Dynamics Corporation, 2014. CALMAC ID: PGE0302.05

<sup>20</sup> *Energy Upgrade California – Home Upgrade Program Process Evaluation 2014-2015*, EMI Consulting, 2015. CALMAC ID: PGE0389.01

Through its internal quality control processes, PG&E has also observed the propensity of certain programs to over-report measure costs, in order to qualify for a higher incentive payment.<sup>21</sup> Better governing of measure cost reporting will be a high priority in 2019 and the forecast portfolio reflects expected measure cost reductions in the following programs:

- Agricultural, Large Commercial, and Industrial Custom programs:
  - Agricultural Calculated Incentives (PGE21031)
  - Commercial Calculated Incentives (PGE21011)
  - Industrial Calculated Incentives (PGE21021)

Additionally, current measure costs are often based on outdated and uncertain values. While certain technologies have benefitted from focused research to update measure costs,<sup>22</sup> the last major measure cost study undertaken in California (WO\_017)<sup>23</sup> was published more than four years ago, with only select results being incorporated into DEER; this study also noted the consistent research finding that measure cost studies should be conducted more frequently and in a more targeted way. With the rapid pace of technology development, changes in labor rates and requirements, and prevalence of non-EE costs and benefits, measure costs will continue to be one of the most uncertain elements within the TRC calculation. In this forecast, PG&E has taken steps to more accurately estimate EE measure costs in anticipation of more focused measure cost reporting.

## ii. Net-to-Gross (NTG)

NTG is also a major driver of portfolio cost-effectiveness and values are often highly outdated and uncertain. The uncertainty of NTG estimates was discussed extensively at the Informal NTG Workshop (July 19, 2017, CPUC), where panelists and attendees described multiple sources of potential measurement bias and uncertainty. Beyond the uncertainty associated with traditional NTG measurement methods, in many cases default NTG values must be used for new programs, projects, and measures that have little relation to original research. For instance, the default Residential NTG of 0.55 is employed for the Residential New Construction Program and the California Multifamily New Homes Program. Neither of these programs have been evaluated. Qualitative investigation suggests that production builders targeted by the programs do not incorporate future-year code requirements into their construction practices without intervention. Thus, these programs could reasonably expect a commensurate increase

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<sup>21</sup> Industrial, agricultural, and large commercial custom projects often award incentives as a percentage of measure costs.

<sup>22</sup> For example, the *California LED Pricing Analysis*, Navigant Consulting, (2018).

<sup>23</sup> *2010-2012 Ex Ante Measure Cost Study Final Report*, Itron (2014). This study utilized hedonic price modeling to eliminate non-EE costs for a number of deemed measures. This study was supplemented by

*CPUC Measure Cost Study for Work Order 017-1 Industrial Custom Measures*, Energy Resource Solutions (2015).

in NTG ratios; PG&E's forecast includes future workpaper updates to reflect these higher NTG ratios.

Additionally, the default NTG values in use today should be considered obsolete upon transitioning to new third party and statewide programs. Programs introducing new designs and new ways to reach customers, relying on new platforms such as meter-based (i.e. NMEC) calculations, or tapping into new strategies like behavioral and operational interventions should not be saddled with irrelevant NTG evaluation results from past programs. PG&E suggests a NTG of 0.85 for all new, unevaluated programs and is forecasting accordingly for those offerings, such as the Residential Pay for Performance program.

Currently, NTG policy also impacts the ability for PAs to serve a higher number of disadvantaged communities (DAC) and hard-to-reach (HTR) customers while achieving TRC and PAC targets. The Draft DEER Resolution released on August 28, 2018 proposes the complete removal of the higher NTG for DI activities serving HTR customers starting January 1, 2019.<sup>24</sup> If implemented, this DEER update would further restrict PA ability to cost-effectively support the HTR segment. Even the current DEER HTR NTG is difficult to apply and overly restrictive. The current approved DEER NTG value of 0.85 for HTR measures is only available for Direct Install (DI) activities, and excludes any other program delivery type.<sup>25</sup>

### iii. Measure Load Shape and Locational Avoided Costs

Avoided costs vary widely by season, by hour of day, and in many cases across geographic region. This variance has grown dramatically in recent years, resulting in very low spring and fall mid-day avoided costs and significantly higher summer peak avoided costs. These trends exacerbate the impact that uncertainty in savings load shapes has on the TRC and PAC. Many DEER load shapes in use today are outdated and uncertain. Very few independent load shapes have been added to DEER in recent years, leaving new measures and programs reliant on attempting to match an existing approved load shape. Most impact evaluations do not assess the accuracy of ex ante load shapes. Recent efforts<sup>26</sup> have proposed updated load shapes, and PG&E

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<sup>24</sup> Draft Resolution E-4952, released August 28, 2018, p.46.

<sup>25</sup> The DEER Remote Ex Ante Database Interface (READI) v.2.5.0 contains all approved NTG values for DEER. The HTR NTG value of 0.85 listed in READI v.2.5.0 is applicable to Direct Install delivery channels only, and according to the READI NTG documentation was first introduced in the 2011 DEER Update Documentation, section 15.1.1 on p.15-2 (accessible via [http://deeresources.com/files/DEER2011/download/2011\\_DEER\\_Documentation.pdf](http://deeresources.com/files/DEER2011/download/2011_DEER_Documentation.pdf)). The Commission-issued document "Required Corrections to Measure Level Input Parameters Identified by Commission Staff per D.14-10-046 Order Paragraph 16 (3 November 2014)" further clarified on p.7 that the 0.85 HTR default is only for direct install activities into hard-to-reach customer facilities (accessible via <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5327>).

<sup>26</sup> Demand Analysis Working Group, Load Shape Update Project Review, <http://www.dawg.info/sites/default/files/meetings/7%20ADM%20-%20Load%20Shapes.pdf>

encourages the Commission to undertake DEER and ex ante updates where better data is now available.

Upcoming third-party energy efficiency programs also have an opportunity to drive high avoided costs through temporal and locational targeting, pre-cooling, and load shifting to limit use during periods of peak net system load. To take advantage of these opportunities, more granular locational avoided costs and streamlined adoption of new savings load shapes will be vital, including the development of load shifting load shapes, which may yield increased usage during off peak hours and on-peak savings. PG&E encourages the Commission to adopt plans in the short term to facilitate adoption of more accurate savings load shapes and more granular locational avoided costs. These changes would allow for EE programs to better serve the needs of the grid and drive the highest cost savings for ratepayers.

#### **iv. Effective Useful Life (EUL)**

PG&E has noted the uncertainty around EULs of many programs and measures.<sup>27</sup> The assignment of EULs is often based on very limited information and at times appears to be arbitrary. EULs are among the least-studied EE parameters.<sup>28</sup> For instance, California's New Construction programs use a 15-year EUL. PG&E believes that the maximum EUL should be used for a program that is spurring the building of above code structures that will be in place for many decades. Therefore, PG&E uses 20-year EULs for these programs in the current forecast. As discussed in PG&E's Business Plan, new construction programs and other programs and measures, where appropriate, should be eligible for EULs beyond 20 years.

Similarly, it can reasonably be assumed that non-HTR sectors replace energy-using equipment more regularly than HTR sectors do, yet installations into HTR sectors are not recognized with higher EULs. Echoing the discussion of NTG in HTR sectors, EULs should be updated with accurate and sensible values if efforts in HTR sectors are to expand.

### **Market-Based Challenges**

Several major market-based factors, discussed below, are driving diminished portfolio cost-effectiveness compared with previous years.

#### **i. Diminished Avoided Costs**

The first market-based challenge is the continued decrease in mid-day electric avoided costs, which significantly reduces portfolio benefits.<sup>29,30</sup> The main driver of the

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<sup>27</sup> For example, at CAEECC meetings on August 2, 2018 and August 21, 2018.

<sup>28</sup> *The Continued Value of Evaluation in California's Shareholder Incentive Mechanism*, J. Tagnipes, IEPEC (2017).

<sup>29</sup> See the avoided cost calculator available here:  
<http://www.cpuc.ca.gov/General.aspx?id=5267>



diminished mid-day avoided costs is the increased adoption of solar generation and projected solar curtailment. Taking Climate Zone 4 as an example, in 2019, the avoided cost calculator assigns 9% of hours an avoided cost of \$0. By 2024, more than 6 hours a day have avoided costs of \$0, including 61% of hours from 7 am – 4 pm.<sup>31</sup> The current hours that define California peak savings goals of 2 pm – 5 pm require that a high fraction of portfolio electricity savings occur during the periods of diminished avoided costs. In addition, natural gas prices have been on a consistent downward trend since 2005, corresponding to economically recoverable shale gas reserves brought about by hydraulic fracking technology. Taken together, the reduction in benefits due to diminished gas and mid-day electric avoided costs is a key factor in PG&E forecasting below a 1.25 TRC for its 2019 portfolio.

**ii. Moving from “Widget” Measures to Comprehensive Programs**

The second major market-based factor driving diminished portfolio TRC is the transition from highly cost-effective, high-volume, deemed “widget” measures (e.g. compact fluorescent lamps) to more comprehensive and expensive projects. This transition has been fueled both by changes in market and energy savings potential as well as policy goals oriented toward deeper savings. Delivering efficiency savings increasingly requires multi-faceted programs that often necessitate higher implementation and/or measure costs and rely on perceived participant benefits on multiple fronts. In particular, programs that target higher energy-efficiency equipment and practices, high product quality, and deeper retrofits drive high measure costs into the portfolio.

**iii. Reaching Hard-to-Reach Customers and Disadvantaged Communities**

The third market-based factor is an increase in program costs needed to meet policy goals to increase support for DAC and HTR customers. Reaching these customers comes with high customer recruitment costs and necessitates direct installation to eliminate any participant costs. Recent national research shows that similar factors within the Low-Income sector have resulted in program costs three times higher than required for other sectors.<sup>32</sup> PG&E anticipates that the costs to serve DAC and HTR customers will continue to remain high. PG&E believes, as with the ESA program, it would be appropriate for the Commission to remove programs focused on DAC and HTR customers from portfolio cost-effectiveness analysis.<sup>33</sup>

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<sup>30</sup> While high electric capacity, transmission, and distribution costs during summer peak hours have increased, and a greenhouse gas adder has been incorporated, with a high percentage of portfolio kWh savings occurring in non-residential sectors, these changes have only partially ameliorated the negative overall impact of the updated electric avoided costs.

<sup>31</sup> The projection of future years’ avoided costs is figured in to the lifecycle avoided costs. Therefore, any measures with an EUL of at least 5 years will already incorporate projected 2024 avoided costs.

<sup>32</sup> The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009–2015. I. Hoffman et al. (LBNL, 2018).

<sup>33</sup> Energy Efficiency Policy Manual (July 2013)

In summary, cost-effectiveness will continue to be impacted by the dynamic changes to the EE landscape. Meeting portfolio savings targets and SB 350 goals now requires not only more holistic programs and less reliance on “widgets”, but the growth of financing and pay-for-performance programs, leveraging private investment with incentive dollars, rapidly deploying new technologies like energy management systems, influencing markets from the top, integration with other distributed energy resources, and investment in the workforce. In the absence of benefits attributed to these activities, these steps are largely at odds with those necessary to achieve a high portfolio TRC: a narrowed set of offerings focused on the lowest cost savings, established technologies, and easy-to-reach customers.

Along with steps detailed in this section, PG&E respectfully requests that the Commission act on the opportunities to improve TRC described in the following section.

## **2. Opportunities to Improve Portfolio TRC**

PG&E’s Business Plan proposed solutions to both address several of the cost-effectiveness challenges identified above and to improve cost-effectiveness through updates to calculation inputs as well as program offerings.<sup>34</sup>

In addition to those recommendations, PG&E has outlined the following practical next steps to improve portfolio cost-effectiveness and is forecasting its 2019 portfolio accordingly. These changes would enable PG&E to accelerate adoption of new technologies, support deep retrofits, and offer a broad portfolio of programs.

1. Update cost-effectiveness inputs within the current policy framework
  - a. Drive out inaccurate and non-EE measure costs
  - b. Update outdated NTG and EUL values as appropriate
  - c. Expand On-Bill Financing, including increasing loan caps
2. Reduce non-incentive spending where possible
3. Enable targeted program changes to existing programs
  - a. Ensure focused and judicious use of direct install (DI)
4. Launch solicitation of new programs
  - a. Assess opportunities for innovative third-party solutions
5. Support Phase III cost-effectiveness policy changes
  - a. Expand and recognize market transformation offerings
  - b. Account for non-resource programs that support larger state policy goals
  - c. Define the role of the PAC as a legitimate arm of the “dual test”
  - d. Remain vigilant over cost-effectiveness inputs, particularly measure costs

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<sup>34</sup> PG&E’s Business Plan, Portfolio Overview chapter, pp. 45-47. Response of Pacific Gas and Electric Company (U 39 M) to Comments on Attachment A of the Scoping Memo and Ruling and to Attachment B Questions, pp. 12-13.

PG&E intends to maintain continued focus on these steps to improve portfolio cost-effectiveness in 2020 and beyond.

## D. Cost Recovery

### 1. Collection of PG&E's 2019 EE Budget in Rates

**Table 5. Authorized EE Funding in 2019 Rates**

| Category                | Electric Energy Efficiency Funds | Natural Gas Public Purpose Funds | Total Energy Efficiency Funds <sup>35</sup> |
|-------------------------|----------------------------------|----------------------------------|---|
| Program Funds - Utility | \$270,484,947                    | \$90,161,649                     | \$360,646,596                               |
| Program Funds - BayREN  | 17,667,750                       | 5,889,250                        | 23,557,000                                  |
| Program Funds - MCE     | 6,153,000                        | 2,051,000                        | 8,204,000                                   |
| EM&V - Utility          | 11,270,000                       | 3,756,736                        | 15,026,942                                  |
| EM&V - BayREN           | 736,156                          | 245,386                          | 981,542                                     |
| EM&V - MCE              | 256,375                          | 85,458                           | 341,833                                     |
| <b>Total</b>            | <b>\$306,568,434</b>             | <b>\$102,189,479</b>             | <b>\$408,757,913</b>                        |

Regarding cost recovery, please note the following:

(1) Revenue Fees and Uncollectible Account Expenses (RF&U) are not included in this table, but will be added to electric funding to determine the revenue requirement when recovered in rates through the Annual Electric True-up (AET).

(2) The EE program and EM&V totals are allocated 75% to electric and 25% to gas in whole numbers to simplify EE cost accounting in balancing accounts, and is subject to Commission approval of the new benefit split discussed in the following section.

(3) PG&E includes BayREN's approved 2019 budget of \$23,950,000 less \$393,000 for EM&V per D.18-05-041 (Table 5) for a Program Fund of \$23,557,000. The EM&V BayREN budget has been increased to \$981,542, or 4% of the total budget, in the table above.

(4) PG&E includes MCE's approved 2019 budget of \$8,532,000 less \$328,000 for EM&V per D.18-05-041 (Table 7) for a Program Fund of \$8,204,000. The EM&V MCE budget has been increased to \$341,833, or 4% of the total budget, in the table above.

(5) The 2019 authorized funding for BayREN and MCE has not been adjusted for any unspent 2018 program funds.

<sup>35</sup> These funds were approved in D.18-05-041, OP 12. See also PG&E's Business Plan Budgets per A.17-01-015.

(6) Per D.18-05-041, PG&E is authorized to collect this amount in rates in 2019. As has been done in prior years, amounts over-collected will be returned to customers through subsequent Annual Electric and Gas True-up advice letters.

## 2. Collection of PG&E's 2019 Demand Response portion of Integrated Demand-Side Management (IDSM) Budget in Rates

As discussed in the Budget section of this advice letter, PG&E's IDSM budget for 2019 is \$9 million.

**Table 6: Authorized Demand Response IDSM Funding in 2019 Rates**

| Category              | PG&E Electric Demand Response Funds <sup>36</sup> |
|-----------------------|---|
| Energy Efficiency     | \$1,290,000                                       |
| Demand Response       | \$7,771,000                                       |
| <b>Total PG&amp;E</b> | <b>\$9,000,000</b>                                |

Regarding IDSM funding, please note the following:

(1) RF&U is not included in this table but will be added to electric funding to determine the revenue requirement when recovered in rates through the AET.

Of PG&E's \$9 million IDSM budget, \$1.29 million will be allocated to the EE portion of the IDSM budget, and \$7.71 million will be allocated to the Demand Response portion of the IDSM budget. The \$1.29 million EE portion of the budget is embedded within the residential and commercial sector budgets shown in Tables 1 and 2. The \$7.71 million IDSM budget related to Demand Response will continued to be tracked in the Demand Response Expense Balancing Accounting and recovered via the Distribution Revenue Adjustment Mechanism.

## 3. Electric and Gas Benefit Split

The EE budget split for recovering electric and gas rates and recording the EE budget and expenses in PG&E's electric and gas balancing accounts is based on the forecasted benefits of the EE program portfolio for 2019.<sup>37</sup> PG&E's forecasted 2019 program portfolio has a benefit split between electric and gas of 75% and 25%, respectively. This is a revision from the 84% electric and 16% gas benefit split approved

<sup>36</sup> Administrative Law Judge's Ruling Providing Guidance for the 2012-2014 Demand Response Applications, Rulemaking (R.) 07-01-041, August 27, 2010 directed that future authority and funding for the demand response portion of the Integrated Design-Side Management activities be considered in EE proceedings starting with the EE applications for 2013-2015. These funds were approved in D.18-05-041, OP 10.

<sup>37</sup> This method was first approved for the 2006-2008 program cycle (D.05-09-043).

in PG&E's 2017 EE budget AL.<sup>38</sup> If this 2019 ABAL is approved, the revised allocation based on the forecasted 2019 benefits would change the recovery of the total EE revenue requirement between electric and gas customers. Upon approval of this AL, PG&E will adjust the revenue requirements used in its EE balancing accounts to reflect the new allocation between electric and gas customers for 2019. The adjustment will be reflected in rates through the next Annual Electric true-up and Public Purpose Program (PPP) Gas Surcharge ALs.

## E. Prior Years' Unspent Funds

### 1. PG&E Prior Years' Unspent Funds

Table 7 illustrates PG&E's unspent funds for prior years' program cycles. Balances are through June 30, 2018. These data are also presented in the Appendices in Table 6: Committed Energy Efficiency Program Funding Not Yet Spent, and Table 7: 2017 Authorized and Spent/Unspent Detail. PG&E requests authorization to return the unspent and uncommitted funds of \$104,563,269 to ratepayers as a one-time credit to offset PG&E's 2019 EE revenue collections.

**Table 7: Prior Years' Unspent Funds as of June 2018**

|  | Pre-2013  | PY2013-2015         | PY 2016             | PY 2017             | Totals              |
|--|-----------|---------------------|---------------------|---------------------|---------------------|
| <b>Unspent &amp; Committed</b>                   |           |                     |                     |                     |                     |
| EM&V *   | -         | \$4,597,000         | \$15,672,827        | \$14,479,143        | \$34,748,970        |
| Financing Pilots                                 | -         | \$4,161,445         | -                   | -                   | \$4,161,445         |
| BayREN   | -         | \$3,760,885         | -                   | \$42,769            | \$3,803,654         |
| MCE (gas funding)                                | -         | \$36,182            | \$104,615           | -                   | \$140,797           |
| <b>Total</b>                                     | <b>-</b>  | <b>\$12,555,512</b> | <b>\$15,777,442</b> | <b>\$14,521,912</b> | <b>\$42,854,866</b> |
| <b>Unspent &amp; Uncommitted for 2019 Offset</b> |           |                     |                     |                     |                     |
| Utility Program Funds                            | \$255,340 | \$333,775           | \$11,649,274        | \$92,324,880        | \$104,563,269       |

\* Includes unspent funds from the CPUC (\$26.1 million) and PG&E (\$8.6 million)

### 2. PG&E's MCE Electric Sub-Account Prior Years' Unspent Funds

In D.14-10-046, the Commission instructed PG&E to offset MCE's unspent funds against payments to be made to MCE under its authorized electric EE portfolio budget. MCE's authorized electric budget, including EM&V funding, for 2018 totaled

<sup>38</sup> Advice Letter 3753-G-D/4901-E-D, including the revision to electric and gas rates and revenues split, was approved July 26, 2017.

\$1,516,561.<sup>39</sup> PG&E has paid or committed to pay a total of \$1,097,804 in electric payments to MCE for 2018 by the end of 2018.

PG&E requests authorization to return the remaining \$418,757 of unspent funds in PG&E's MCE electric sub-account to ratepayers as a one-time credit to offset PG&E's 2019 EE revenue collections. Additionally, in the rejected 2018 ABAL, PG&E requested authorization to return \$65,812 of unspent 2017 funds in PG&E's MCE electric sub-account to ratepayers. This amount has been subsequently revised to \$80,726. PG&E requests authorization to return this revised amount of unspent funds in PG&E's MCE electric sub-account to ratepayers as a one-time credit to offset PG&E's 2019 revenue collections.

## **F. 2019 Program Changes**

In this section, PG&E identifies changes to PG&E's proposed programmatic activity in compliance with the Rolling Portfolio Decision<sup>40</sup> and Business Plan Decision.<sup>41</sup> These changes reflect the substantial shifts necessary to optimize the portfolio in pursuit of a higher TRC, including:

- Closing or reducing programs to sunset or scale back low TRC programs in every sector
- Refining contract and administrative spend through budget adjustments
- Ramping up cost-effective deployment of On-Bill Financing (OBF)
- Scrutinizing measure costs by either removing measure costs not associated with energy savings or improving custom measure cost accuracy

These changes will result in a more focused portfolio that balances savings goals and cost-effectiveness. Table 8 summarizes the budget changes for each sector between PG&E's approved 2018 budget in CEDARS and its 2019 forecasted budget. PG&E is requesting a 2019 budget allocation that represents a nearly 20% drop from 2018, with reductions across multiple sectors. The sector budgets reflect a thoughtful allocation of PG&E overhead based on the needs of each sector. The largest reductions, 44%, are forecasted for the Industrial, Agriculture, and Public sectors. Budget increases are forecasted for the Residential, Emerging Technology, Finance, and Codes and Standards sectors. A full list of program closures is included in Attachment 4.

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<sup>39</sup> The Commission authorized for MCE a 2018 electric budget of \$1,301,647 and gas budget of \$284,700 in D.16-05-004, OP 2 at page 13. MCE's Annual Budget AL (AL 25-E) and MCE's Supplemental Annual Budget AL (AL 25-E-A) requests the authorized EM&V budget be transferred to MCE, which increases the total 2018 budget by \$18,177. MCE allocated the EM&V funding between electric and gas based on the same proportions as in MCE's underlying annual budgets. Additionally, in the CEDARS submission made in July 2018, MCE received a budget increase that provided an additional \$199,999 for electric and \$27,217 for gas for the remainder of 2018.

<sup>40</sup> D.15-10-028, p. 60.

<sup>41</sup> D.18-05-041

**Table 8. Sector-Level Budget Changes from 2018 to 2019\***

| Sector                         | 2018 Budget          | 2019 Forecast Budget | Percentage Change from 2018 to 2019 |
|--------------------------------|----------------------|----------------------|-------------------------------------|
| Residential                    | \$79,654,384         | \$88,269,075         | +11%                                |
| Commercial                     | \$92,979,495         | \$68,402,537         | -26%                                |
| Industrial                     | \$44,072,060         | \$24,785,481         | -44%                                |
| Agriculture                    | \$25,828,032         | \$14,477,981         | -44%                                |
| Emerging Tech                  | \$5,629,976          | \$7,760,943          | +38%                                |
| Public                         | \$72,368,174         | \$40,669,461         | -44%                                |
| WE&T                           | \$11,038,180         | \$9,741,738          | -12%                                |
| Finance                        | \$4,158,662          | \$6,504,117          | +56%                                |
| OBF Loan Pool                  | \$13,500,000         | \$13,500,000         | 0%                                  |
| Codes and Standards            | \$16,183,839         | \$20,876,988         | +29%                                |
| <b>PG&amp;E Programs Total</b> | <b>\$365,412,802</b> | <b>\$294,988,322</b> | <b>-19%</b>                         |

\* PG&E does not anticipate spending the full 2018 allotment shown in this table but given the ongoing 2018 program year is using the CEDARS budget for a point of comparison.

Table 9 shows two sector level metrics that were important points of consideration as PG&E assessed needed program and portfolio adjustments.

**Table 9. 2019 Forecast Sector-Level Spending and Levelized Cost Metrics**

| Sector       | 2019 Forecasted Incentive/Implementation Budget | Levelized PAC Cost / Net MMBtu |
|--------------|---|--------------------------------|
| Residential  | 2.9   | 60                             |
| Commercial   | 0.9   | 85                             |
| Industrial   | 0.8   | 64                             |
| Agricultural | 1.0   | 94                             |
| Public       | 0.5   | 186                            |

The Residential sector shows the highest ratio of incentive to implementation budget as well as the highest levelized PAC cost per net MMBtu savings. Results vary across other sectors vary. As PG&E continues to promote non-incentive strategies, including financing and behavioral savings strategies, the ratio of incentive to implementation budget will become less relevant. However, along with trends in avoided costs, at this point each of the Table 9 metrics give an important perspective that has helped prioritize the budget changes of Table 8, above.

## 1. Residential Programs

PG&E's 2019 residential sector portfolio reflects an ongoing transformation focused on delivering cost-effective programs that provide opportunities for a broad spectrum of PG&E customers. To balance TRC with future scalability, PG&E has reduced investment in a number of low-TRC residential programs in favor of targeted programs, including those that support DAC and HTR customers. PG&E has considered the impact of third party implemented programs and alignment with upcoming statewide programs in determining which programs to sunset or reduce investment.

### *Program Sunsets*

The Residential Upstream HVAC pilot of the residential HVAC subprogram (PGE21006) will be sunset due to a persistently low TRC and decreasing participation by year. Additionally, PG&E eliminated the Basic Path of the Energy Upgrade California program (EUC, PGE21004) and the deemed rebate offerings through Multifamily Energy Efficiency Rebate (MFEER, previously PGE21003) in 2018 due to low TRC. Customers previously served by the MFEER program are now being served by both the Middle Income Direct Install program (MIDI, PGE210011) and the Multifamily Upgrade Program (MUP, replacing MFEER as PGE21003), while PG&E is now looking to a combination of Residential Pay for Performance (P4P, PGE210010), Residential Energy Fitness (REF, a subprogram of P4P), MIDI, Direct Install for Manufactured and Mobile Homes (PGE21009), and third-party program designs to fill any gaps in service remaining from these closures. Any significant program modifications resulting from these shifts are described below.

### *Budget Reductions*

PG&E plans to make significant budget reductions in the Air Conditioning Quality Care subprogram (ACQC, PGE21006), Energy Upgrade California program (EUC, PGE21004), Primary Lighting program (PGE21041), and Plug Load and Appliance program (PLA, PGE21002). These programs are facing low or decreased TRC and are impacted by new statewide programs and/or code changes (save EUC).

### *Budget Increases*

To enhance the focus on the HTR and DAC customers, PG&E proposes to increase budgets for its multifamily offerings through the California Multifamily New Homes (CMFNH, PGE21007) and Multifamily Enhanced Time Delay Relay (Cooling Optimizer) Program (PGE21008). The CMFNH program will also be increasing budget to support program evolution in anticipation of the Title 24 2022 code updates, which are expected



to target multifamily buildings<sup>42</sup>, and to support collaboration with the Codes and Standards team on Code Readiness activities that produce data for future code cycles. To address the split incentive issue in the multifamily sector, the Cooling Optimizer program operates through the DI channel, and PG&E will be adding higher TRC measures to the program to improve the overall TRC.

PG&E also proposes to increase budgets for third-party implemented programs including the Middle Income Direct Install (MIDI, PGE210011), Residential Energy Fitness (REF, subprogram of PGE210011), and the Residential Pay for Performance program (P4P, PGE210010). MIDI offers a paired approach that supports moderate income customers. PG&E plans for these programs to incorporate integrated EE and DR solutions in 2019 by providing time-of-use rate information and smart energy management technologies, and will begin testing innovative load shifting options to further help customers manage their responses to time-of-use pricing signals.<sup>43</sup> PG&E also believes that these tactics will increase the cost-effectiveness of these offerings over time.

Residential P4P program budget increases reflect four competitively selected P4P aggregators that are implementing their programs in 2019, with two of the four already in the field. P4P is expected to support EE as a competitive energy resource, and has shown high potential for scalability due to efficient program design, low costs, and favorable TRCs. P4P has taken important steps to promote increased savings during the hours of the year where avoided costs are the highest; PG&E sees this as a great opportunity to further EE and DR integration and expects this to be a major contributor to increased IDSM activities in the residential sector.

The P4P budget will also be increasing to absorb work historically done under the California Youth Energy Services (CYES) program, implemented by Rising Sun and previously managed across five local government partnership programs. The hybrid direct install, pay-for-performance approach undertaken in CYES is more appropriately managed within the residential portfolio, and the shifting of this work under P4P is expected to maximize the efficiency of this dynamic, cost-effective program.

### *Other Changes*

PG&E plans to begin to claim savings for the Energy Efficiency Marketplace in 2019. As part of Residential Energy Adviser (PGE21001), PG&E's Marketplace helps customers save energy by intercepting them on their research journey and presenting the relative efficiency score and total lifetime cost for products of interest. This information has been

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<sup>42</sup> This was indicated at a California Energy Commission (CEC) 2018 Business Meeting on May 9, 2018 (see pages 85-85 of the transcript, located at <https://efiling.energy.ca.gov/getdocument.aspx?tn=223490>).

<sup>43</sup> This work supports PG&E's increased IDSM activities, as discussed in Section A: Budget and required by D.18-05-041, OP 10.

proven to influence customers to purchase more efficient products without the need for incentives. The savings claim reflects the result of an Emerging Technologies Coordinating Council (ETCC) Study<sup>44</sup> and the 2018 EE Potential and Goals study, which identified significant market potential for web real-time feedback behavioral programs.

## **2. Commercial Programs**

In 2019, PG&E proposes to maintain a dynamic portfolio of commercial programs that serves customers' evolving needs cost-effectively by adjusting the mix of measures and products offered in the respective commercial programs identified below. At a high level, budget reductions and TRC boosts to market-focused implementer programs were driven by a substantial shift in focus away from traditional lighting measures towards a more technologically diverse offering increasing availability of controls, HVAC, cost-effective therms measures, and refrigeration. PG&E's internal deemed and calculated programs adjusted both budget and TRC by removing low-TRC lighting measures. These programs also previously had stale, low-TRC pipelines which will be refreshed as programs target more cost-effective projects.

### *Program Sunsets*

Proposed changes to the commercial portfolio include sunsetting the LED Accelerator program (LEDA, PGE210119). LEDA was faced with operational challenges, such as a slow-moving project pipeline and barriers to calculation compliance. The effort to resolve these challenges outweighed the potential savings and benefit to customers, catalyzing the choice to sunset LEDA.

Historically, the Commercial Continuous Energy Improvement program (CEI, PGE21013) and its Agricultural and Industrial counterparts (PGE21033 and PGE21023, respectively) have served as consultative services for their respective sectors, which target long-term and strategic energy planning. These programs provided flexible budget for any strategic program activity that did not fit into traditional programs. The Commercial, Agricultural, and Industrial CEI programs will all be sunset in 2019. Industrial CEI activities will be absorbed by the Industrial SEM program (PGE21030), as discussed in the Industrial section below. PG&E hopes that learnings from the Industrial SEM program can be incorporated into an SEM-type of offering for the commercial sector, as detailed in PG&E's Business Plan.

### *Budget Reductions*

Commercial Calculated Incentives (PGE21011) will see reductions due to the removal of low-TRC HVAC and lighting measures, as well as customer disinterest in submitting sensitive information that is required for custom projects. Despite this overall budget

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<sup>44</sup> *Assessment of PG&E's Online Marketplace*, Research Into Action, (2018).

reduction, PG&E anticipates offering site-specific Normalized Metered Energy Consumption (NMEC) offerings through this subprogram. NMEC provides an opportunity to advance adoption of building-level controls, facilitating EE and DR integration. Through NMEC, this subprogram will provide an important source of increased IDSM activity.<sup>45</sup> Additionally, PG&E is reducing budget for the Commercial Energy Advisor program (CEA, PGE21014) to offer only large integrated audits in 2019.

The Savings by Design program (SBD, PGE211025) will also see a decrease in budget. A recent disposition on a common modeling tool in the program will limit savings and participation in the program in 2019; PG&E will look to upcoming statewide solicitations for non-residential new construction programs for new approaches to serving this market. Although the program will see a reduction due to the disposition, a concentrated outreach plan, identification of key customer targets such as state and other government agencies, and increased marketing to coordinate with the expansion of the Code Readiness program,<sup>46</sup> will maintain program momentum and impact despite net budget decreases.

### **3. Agricultural Programs**

The strategy for the Agricultural portfolio in 2019 was to maximize TRC and update ex ante values to properly credit programs with outdated parameters. Programs with a history of low savings throughput or low cost-effectiveness were identified for modification or closure; continuing programs were assessed based on their ability to deliver cost-effective savings.

#### *Program Sunsets*

The Industrial Refrigeration Performance Plus program (IRPP, PGE21036) will be sunset due to low savings achievements; this streamlines the agricultural portfolio as past IRPP projects will still be conducted through existing channels. Additionally, the Agricultural Continuous Energy Improvement program (CEI, PGE21033) is being sunset as many of this program's activities will be conducted through the Industrial Strategic Energy Management (SEM) program, as discussed earlier.

#### *Budget Reductions*

PG&E is reducing the Agricultural Deemed Incentives program (PGE21032) budget. Lighting measures made up a significant portion of this program's savings; lighting measure sunsets and incentive reductions have reduced the budget need in this program. Similarly, the Agricultural Calculated Incentives program (PGE21031) has a smaller pipeline of projects, leading to reduced savings and budget needs in 2019.

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<sup>45</sup> As discussed in Section A: Budget and required by D.18-05-041, OP 10.

<sup>46</sup> See Codes and Standards Programs section below.

### *Budget Increases*

Both the Dairy and Winery Industry Efficiency Solutions program (PGE210312) and Process Wastewater Treatment program (PGE210311) will see a large budget increase in 2019 due to a number of projects scheduled for completion in 2019 instead of in 2018. These programs are not being substantially modified and this information is provided for completeness.<sup>47</sup>

## **4. Industrial Programs**

### *Program Sunsets*

PG&E plans to streamline the industrial programs by sunsetting the California Wastewater Process Optimization program (CalPOP, PGE21025), the Refinery Energy Efficiency subprogram (REEP, PGE21029), and the Light Industrial Energy Efficiency program (LIEEP, PGE210211). All three programs suffer from low TRC and sunsetting them allows these projects to be conducted through existing, more cost-effective channels. Additionally, the Industrial Continuous Energy Improvement program (PGE21023) will also be sunset and replaced by the more comprehensive Industrial Strategic Energy Management (SEM) program.

### *Budget Reductions*

PG&E plans to reduce the budgets of the Industrial Deemed Incentives program (PGE21022), the Water Infrastructure and System Efficiency program (PGE210135), and the Energy Efficiency Services for Oil Production program (PGE21026). Similar to the Agricultural Deemed Incentives program, lighting measure sunsets and incentive reductions have reduced the budget need in the Industrial Deemed Incentives program. The Water Infrastructure and System Efficiency program will have a reduced budget at the benefit of increased TRC. Finally, the Energy Efficiency Services for Oil Production program will reduce its budget in reflection of industry standard practice determinations and reduced oil prices, both of which create challenges in driving projects in this space.

### *Budget Increases*

PG&E is forecasting increased budget for the Industrial Compressed Air System Efficiency program (PGE210212), which is positioned to grow substantially from the introduction of to-code measures.

Similar to the Dairy and Winery Industry Efficiency Solutions and Process Wastewater Treatment programs discussed in the Agricultural section, the budget for the Industrial Recommissioning Program (PGE210210) will increase in 2019 due to a number of projects scheduled for completion in 2019 instead of in 2018. This program is not being substantially modified and this information is provided for completeness.

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<sup>47</sup> Per direction in D.18-05-041, p. 128.

The Industrial Strategic Energy Management (SEM, PGE21030) is a newly launched program that has been ramping up in 2018 to replace CEI program services. PG&E expects to see energy savings, coupled with increased spending, as the program matures in 2019. PG&E views SEM as a key strategy for the industrial sector, as detailed in the Business Plan.

## **5. Public Sector Programs**

The public sector has historically faced cost-effectiveness challenges. Through the 2019 ABAL forecasting process, extensive effort was put forth by PG&E and its public-sector program implementers to improve the sector's overall TRC and PAC.

PG&E and the public-sector team held webinars providing training, information, and updates to clarify portfolio priorities and align with partners on the 2019 forecast. In addition to these trainings, PG&E provided "office hours" for implementers through June and July 2018 to request support for 2019 program planning. PG&E program managers worked with implementers across a variety of channels to assist partners in meeting public sector portfolio goals. However, this work was focused on forecasting measures and savings for 2019, and programs and partnerships with funds but without associated measures and savings have voiced a feeling of being disconnected from and disproportionately impacted by the portfolio optimization process. Both implementers and partners were encouraged to engage and collaborate with each other to create the most accurate and achievable forecast.

PG&E attempted to minimize the cost reductions for non-resource spending and other lead local partner funds that do not directly tie to the delivery of energy efficiency projects. Through efforts to maximize benefits, the sector is striving to balance the use of non-resource funding with both cost-effectiveness requirements and the desire to serve other customer needs.

PG&E recognizes the importance of building capacity to conduct energy-efficiency activities in the public sector and has preserved some non-resource funds to allow local governments to continue those efforts within their communities. To that end, the Strategic Energy Resources program (SER, PGE2110052) consolidates the non-resource work of local government partners to enable innovative strategies that support energy efficiency. Traditionally, these funds have been used to meet objectives as described in the California Long Term Strategic Plan, support the Statewide Energy Efficiency Collaborative (SEEC), and fund the Prop 39 ZNE Pilot for local education agencies. Many partners are currently using funds to help support climate action plan activities such as developing greenhouse gas (GHG) inventories, setting GHG reduction targets, and identifying energy efficiency opportunities for local governments and communities.

While PG&E has historically funded a wide range of activities with SER funds, PG&E will be reducing the overall SER budget to improve the portfolio's TRC. The budget

going forward in 2019 will focus on specific activities that best align with building capacity in local governments and serving hard-to-reach and disadvantaged communities. PG&E will also use part of the SER budget to support a statewide database for local governments, like Energy Atlas.<sup>48</sup> While the program budget has been reduced, the continuing non-resource activities will allow local government partners to provide innovative and customized solutions to support their public agencies and communities.

To improve cost-effectiveness, PG&E and its public-sector partners are incorporating both near-term and long-term adjustments. Near-term adjustments include immediate program forecast refinements such as optimizing program measure mixes and right-sizing contract budgets. The approach to right-sizing budgets included reviewing levelized cost of measures over effective useful life at a sector level, the proportion of incentives versus non-incentives in each program, and the average cost per kWh forecasted per program. Sector-level scenarios were created starting with no changes to budgets; implementers were requested to optimize and increase benefits. This planning activity challenged PG&E to reach an appropriate level of cost-effectiveness at a sector level without reducing budgets. Across the sector, budgets were reduced accordingly to balance the greatest amount of costs to benefits. For example, programs with high average costs per kWh and large budgets saw larger reductions, while programs with low cost-effectiveness operating in hard-to-reach areas and disadvantaged communities saw relatively lower budget reductions.

Longer-term adjustments will require both internal and external policy discussions and process modifications. For instance, the sector may see a cost-effectiveness improvement by exploring the use of a higher NTG for public sector customers, or by leveraging a higher NTG for customers in all hard-to-reach and disadvantaged communities, regardless of delivery channel.<sup>49</sup> Evolving current direct install programs to offer deemed downstream measures would also boost cost-effectiveness. Historically, this sector has heavily relied upon direct install interventions to drive savings, but this proves challenging as direct install interventions generally yield the same savings as downstream interventions, but incur greater implementation and measure costs. Direct install delivery methods should continue to be scrutinized and used only when they produce similar or more cost-effective results than downstream methods.

With respect to co-benefits,<sup>50</sup> also known as “non-energy benefits” or “non-energy effects”: Co-benefits are clearly defined in the California Evaluation Framework, chapter 11 entitled “Non-Energy Effects Evaluation.”<sup>51</sup> The Framework details the various

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<sup>48</sup> D. 18-05-041, OP 32

<sup>49</sup> While PG&E suggests this may be a possibility, note that Draft Resolution E-4952, posted August 28, 2018, proposes to eliminate any NTG benefit for HTR markets.

<sup>50</sup> D.18-04-051, OP 30

<sup>51</sup> *The California Evaluation Framework*, TecMarket Works Framework Team, June 2004.

research methods and approaches that can be used to evaluate co-benefits, including an inventory of typical co-benefits. PG&E believes there is no need to redefine co-benefits or establish new methods for their measurement. The majority of research into the co-benefits of EE programs has been conducted outside California, and the Framework lists a number of those studies and their methods. Additionally, PG&E and the other IOUs have included co-benefits in their proposed standard contracts for local government partnerships<sup>52</sup>.

The following is a summary of specific changes to Public Sector programs and partnerships:

### *Program Sunsets*

PG&E is proposing to sunset the Local Government Energy Action Resources Program (LGEAR, PGE2110051). LGEAR traditionally sought to test and develop new partnership programs as well as augment existing partnerships. The portfolio's shift toward a third-party outsourced model obviates the need to stand up new partnerships and offerings through LGEAR.

PG&E will also be sunsetting the SEI Energize Schools Program (PGE210139). SEI Energize Schools was created from the IDEEA365 solicitation process.<sup>53</sup> SEI Energize schools is a non-resource program focused on energy efficiency education for students within K-12 schools and helped schools with their Prop 39 planning needs. As the deadline for Prop 39 funding requests has passed and with the drive to reduce non-resource spend to improve the portfolio TRC, the program will close after 2018.

### *Budget Reductions*

Budget reductions to three statewide Institutional Partnership programs - State of California (PGE2110013), California Community Colleges (PGE2110011), and University of California/California State University (PGE2110012) - are attributed to right-sizing Program Administrator and Management subcontractor's (PAMs) budgets to align with the forecasted project pipelines of each program. As Prop 39 funding is closing out, less budget is needed to support Prop 39 administration in the California Community Colleges partnership. The UC/CSU budget was reduced because of a significant reduction in estimated savings in the project pipeline.

Also notable are the reductions to Santa Barbara Energy Watch (PGE211020), San Francisco Energy Watch (PGE211024), San Mateo Energy Watch (PGE211019), East Bay Energy Watch (PGE21109), Sierra Nevada Energy Watch (PGE211021), Sutter

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<sup>52</sup> Joint Motion for Approval of Standard Contract for Local Government Partnerships, A.17-01-013, filed August 31, 2018.

<sup>53</sup> For clarity, SEI Energize Schools is classified in the Commercial sector as the program was launched before the Public Sector was established.

Buttes Energy Watch (PGE211027), and North Valley Energy Watch (PGE211026). Budget decreases are attributed to reductions to lead local partner and implementer budgets. The intent of the decrease is to improve short term cost-effectiveness by focusing on activities that are most aligned to the public-sector strategy.

### *Budget Increases*

There will be no budget increases in 2019 for programs in the public sector. CEDARS may reflect an increase relative to the 2018 ABAL filing due to funds were forecasted for programs through the LGEAR program during the 2018 ABAL process. By closing the LGEAR program, the funds traditionally held for direct install activities to be appropriated later in the year were distributed upfront.

## **6. Financing Programs**

As described in PG&E's adopted Business Plan, increasing the supply of, and access to, affordable capital for energy efficiency investments is a key change for the current program cycle.<sup>54</sup> To achieve this goal, PG&E will formally propose alterations to the On-Bill Financing program (OBF, PGE21091), including adjustments to loan caps and other parameters to ensure that the program can contribute significantly to savings goals. PG&E expects that OBF will be a foundational program in optimizing portfolio cost-effectiveness.

PG&E will propose the following modifications to On-Bill Financing;

### **a) Increasing the size of loans available for On-Bill Financing**

PG&E will seek formal modification of the OBF program to increase the program caps for standard loans through a petition for modification to D.09-09-047 to increase the maximum loan funds available per loan and the length of loans for non-residential customers.<sup>55</sup> The following table outlines the proposed changes:

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<sup>54</sup> PG&E's Business Plan, Finance chapter, p.3.

<sup>55</sup> See [https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC\\_SCHEDS\\_E-OBF.pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_E-OBF.pdf) for existing program parameters; also summarized below.



**Table 10: Summary of Proposed OBF Loan Limit and Term Changes**

| Customer Class                                       | Existing Loan Limits and Terms   | Proposed Loan Limits and Terms   |
|--|--|--|
| Multi-Family Housing and Government Agency Customers | Loan Limit: \$250,000<br>(\$2,000,000 available, by exception, for projects with unique energy savings opportunities.)<br>Max Term: 10 years | Loan Limit: \$250,000<br>(\$4,000,000 available, by exception, for projects with unique energy savings opportunities.)<br>Max Term: 10 years |
| Other Non-Residential Customers                      | Loan Limit: \$100,000<br>Max Term: 5 years   |  |

PG&E expects these changes will facilitate the use of OBF in larger, longer payback projects that can contribute significant savings to the portfolio. For example, the agricultural and industrial sectors of PG&E's portfolio have used OBF minimally, as the \$100,000 loan limit has not motivated customers to execute new EE projects. The longer loan lengths PG&E has proposed should induce more multi-measure projects and a greater variety of measures, instead of the simpler, single measure projects that the program has historically funded.

**b) Implementation of a new financing subprogram for large projects.**

In addition, PG&E will seek Commission approval to establish a new sub-program to OBF that would enable PG&E to provide loans for large, highly cost-effective projects. In this proposed sub-program, projects exceeding \$4 million that are forecasted to have a TRC of 1.5 or higher would be eligible for project financing with funds from the OBF balancing account; these loans would be repaid through the customer's PG&E utility bill. Loans would still be provided at 0% interest, up to a maximum of 10-year terms and the customer would not be eligible for other PG&E incentives.<sup>56</sup>

To successfully implement this subprogram, PG&E would use program administration funds to fund specialized professional services (e.g. legal, finance, engineering) to protect ratepayer funds. This change would allow PG&E to target projects that can significantly improve portfolio cost-effectiveness. PG&E will seek approval for this new sub-program and submit an implementation plan with further details.

PG&E is projecting that these changes to the OBF program would provide an estimated \$60 million in loans, contributing significant cost-effective savings to the portfolio. If these programs are adopted, PG&E anticipates the cost-effectiveness of the portfolio to

<sup>56</sup> All details described here are preliminary until PG&E formally proposes the offering.

increase, potentially significantly. PG&E is only including a portion of the forecasted savings because the program changes require Commission approval and PG&E's implementation in early 2019.<sup>57</sup>

### *Program Sunsets*

PG&E has not included budget for the EmPower Central Coast Energy Efficiency Financing program under "Third-Party Financing" (PGE21092). Southern California Gas Company (SoCalGas) is the statewide lead for financing and has informed the County of Santa Barbara, who administers the program, of the intention to sunset the program in 2019. For more information, please see the SoCalGas Annual Budget Advice Letter for Program Year 2019.

## **7. Emerging Technologies (ET) Program**

PG&E's 2019 budget for ET is aligned with the budget proposed and approved in the Business Plan. This budget reflects a higher amount than the 2018 ABAL, which was based on an operational forecasted budget for the continued pursuit of ET efforts toward achieving the Business Plan metrics.

Additionally, the ET program will be expanded to incorporate the remaining relevant elements of sunsetting PG&E lighting programs. PG&E is proposing to discontinue the Lighting Innovation\_(LI, PGE21042) and Lighting Market Transformation (LMT, PGE21043) subprograms. The LI subprogram evaluated advanced lighting technologies or program approaches, and the LMT subprogram was intended to track, coordinate, and provide collaboration opportunities for lighting market actors to support the adaptation of utility lighting programs to changing market needs. LI and LMT activities approved for continuation in 2019 will be supported by the ET program and third-party implementers as appropriate.

## **8. Workforce Education and Training (WE&T) Program**

As part of meeting its ambitious EE targets, California recognizes the need for a well-trained workforce that has the knowledge to recognize EE opportunities and the skills to act on them.

The Strategic Planning subprogram (PGE21073) will be sunset in 2019. Since Strategic Planning activities are administrative in nature, those activities will be rolled into existing WE&T programs to more accurately track administrative costs alongside the programs

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<sup>57</sup> This OBF strategy is presented in PG&E's Business Plan and implicitly approved (from D.18-05-041, p.12: "If an item is not discussed or otherwise decided in this decision, the PAs should consider that aspect of the business plans approved"). While PG&E only includes a portion of these savings into its 2019 forecast, PG&E's presented portfolio is contingent upon these OBF changes. Without these changes, significant modifications to this forecast would be required to achieve savings, cost-effectiveness, and policy goals.

in which they are incurred. In another clarifying change, the Centergies subprogram (PGE21071) will be renamed to Integrated Energy Education and Training (IEET), per PG&E's approved Business Plan.

To prepare for the transition to a statewide Career Connections subprogram, PG&E has also proposed a notable reduction to the Connections subprogram (PGE21072). This results from two major changes to the 2019 Connections program offering: 1) post-secondary education and training will be shifted to the IEET subprogram as outlined in the IOUs' Business Plans, and 2) K-12 Connections activities will continue to be co-funded with the other IOUs, eliminating PG&E-specific activities.

## **9. Codes and Standards (C&S) Programs**

The statewide C&S Program influences regulatory bodies such as the California Energy Commission and the U.S. Department of Energy (DOE) to strengthen EE regulations, thereby driving energy savings. This includes efforts that increase compliance with existing C&S, support local governments that include reach codes as a strategy, coordinate with statewide IOUs to optimize collaboration, and prepare for future codes via code readiness activities.

PG&E plans to increase the budget of the Code Readiness subprogram (PGE21056) to support improved collaboration with the commercial and multi-family new construction programs (Savings by Design, PGE211025, and California Multifamily New Homes, PGE21007, respectively). The expanded budget will be used to upsell a higher performance tier of measures to a subset of new construction program customers. Participants will receive enhanced technical support and building system monitoring. In exchange, participants will provide data on equipment costs, system performance, and compliance issues to inform future codes and standards.

Collaboration between the Code Readiness and the resource new construction programs should result in a symbiotic relationship that improves both programs. The expanded Code Readiness offering should increase the per project savings, NTG ratios, and realization rates achieved by the resource new construction programs. In turn, the Code Readiness subprogram can leverage new construction leads and recruitment strategies to lower the cost of data acquisition.

Finally, PG&E is also planning a budget reduction for the Appliance Standards Advocacy subprogram (PGE21052), as the appliance standards advocacy budget is being split between state and federal subprograms for 2019 and beyond. This budget reduction represents a partial transfer of the overall appliance standards budget to the National Codes and Standards Advocacy subprogram (PGE21057).

## **G. Expectations for Reported and Evaluated TRC and PAC**

PG&E has worked to ensure that the forecast presented here represents a realistic, legitimate, and achievable 2019 portfolio. For program year 2017, PG&E filed a portfolio TRC of 0.88 (excluding C&S).<sup>58</sup> Relative to the 2017 portfolio, this forecast represents the sunset of over ten low-TRC programs or subprograms and major budget drawdowns in many other low-TRC programs, as detailed above. PG&E is also ramping up scalable programs with higher TRC, including the Residential Pay for Performance program and cost-effective delivery of On-Bill Financing. Along with these program changes, PG&E plans for more rigorous oversight and governance of measure cost reporting to better align system energy benefits with associated participant investment. Finally, PG&E anticipates a 29% reduction in overhead spending relative to 2016.<sup>59</sup>

These high-level changes have resulted from a “ground-up” forecasting and planning process. PG&E engaged hundreds of third party program partners to optimize programs and make difficult decisions to achieve higher portfolio TRC. Early in the ABAL process, PG&E provided training and demonstrations on use of the Cost-Effectiveness Tool (CET) and supporting resources. PG&E developed and distributed job aids, workbooks and training documents for external use. PG&E encouraged all partners to incorporate other eligible measures and allowed for custom line items to facilitate new ideas with defensible savings claims. Subsequently, PG&E performed extensive quality control over nearly 100 iterations of individual program forecasts received from external partners, fixing errors where necessary. The portfolio presented here represents numerous rounds of iteration and optimization. It is because of both this “ground-up” effort and the portfolio changes it informed that PG&E believes the 2019 portfolio is positioned to achieve the forecasted TRC of 1.07.

PG&E also believes the 2019 portfolio can achieve a 1.0 TRC on an evaluated basis. Realization rates (ex post savings/ex ante savings) have steadily increased over the last several evaluation cycles. According to the most recent CPUC Energy Efficiency Portfolio Report,<sup>60</sup> PG&E Gross Realization Rates (GRRs) for the combined 2013 – 2015 program years were 94%, 96%, and 77% for kWh, MW, and Therm savings respectively. These GRRs are each up from below 60% in 2006 – 2008. The recent upward trend in realization rates is due in part to lowered ex ante savings values, and in part to increased program oversight by PG&E, including more scrutiny over large custom projects. PG&E also notes that 2015 was the last program year for which impact evaluations were completed; before major recent EE legislation including AB-802, SB 350, AB 793, and adoption of net goals.<sup>61</sup> Because of these changes as well as a host of other advancements, the 2015 evaluation results are likely not an accurate barometer for the 2019 ex post portfolio.

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<sup>58</sup> CEDARS annual report filing for PG&E’s Program Year 2017.

<sup>59</sup> A 3% inflation adjustment is assumed.

<sup>60</sup> Energy Efficiency Portfolio Report, CPUC, 2018.

<sup>61</sup> D.16-08-019, p.21 and FOF 9

## H. Progress Toward Business Plan Objectives and Challenges

PG&E's proposed 2019 budget takes steps to realize its vision laid out in the Business Plan. Some of these steps are discussed below:

### a) Pay for Performance with Customer Targeting

Several of PG&E's highest priority Business Plan objectives involved facilitating new program models, including Pay for Performance (P4P), and utilizing data and analytics to target customers with the highest savings potential. The portfolio forecasted here represents significant progress toward these goals. PG&E has completed the initial enrollment solicitation for the Residential Pay for Performance program, selecting two implementers under the advice of a diverse Peer Review Group (PRG). The winning bidders proposed, designed, and launched their interventions within the P4P criteria and are now implementing their programs. PG&E has since undertaken a second enrollment period solicitation and plans to launch these P4P programs in 2018.

An essential element of facilitating a successful P4P program is the consistent and transparent measurement of meter-based energy savings and establishing predictable payment terms based on those savings. For these purposes, PG&E completed a separate competitive solicitation process for the selection of a CalTRACK<sup>62</sup> operator to execute the CalTRACK methods for the determination of meter-based savings. PG&E led the development of these methods with a comprehensive, consensus-driven process among several stakeholders, including numerous Measurement and Verification (M&V) firms. Methods development is ongoing and is open to the public. The CalTRACK code is also open-source and available for download.<sup>63</sup>

PG&E has also undertaken extensive research to develop and test customer targeting strategies based on Advanced Metering Infrastructure (AMI) data analytics. PG&E has published multiple studies<sup>64,65</sup> within the last year that detail findings for both the Residential and Small and Medium Business (SMB) sectors. Residential P4P program implementers are now leveraging the top performing residential customer targeting schemes. Targeted customers are identified who offer the highest savings opportunity depending on the specifics of both their energy usage profiles and the program intervention.

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<sup>62</sup> [www.caltrack.org](http://www.caltrack.org)

<sup>63</sup> <https://github.com/CalTRACK-2/caltrack>

<sup>64</sup> Whitepaper - *Customer Targeting for Residential Energy Efficiency Programs: Enhancing Electricity Savings at the Meter*, A.M. Scheer, S. Borgeson et al. (2017).

<sup>65</sup> Whitepaper and Full Report - *Energy Efficiency Program Targeting: Using AMI Data Analysis to Improve At-the-Meter Savings for Small and Medium Businesses*, S. Borgeson, A.M. Scheer, R. Kasman et al. (2018).

PG&E also plans to utilize the P4P platform to showcase the potential of EE as a competitive grid resource, a core element of the Business Plan. Based on an analysis of avoided cost trends in multiple climate zones, PG&E modified the P4P solicitation for the second enrollment period to offer a triple payment kicker for kWh savings achieved during the summer peak period (June – September; 4 – 9 pm).

PG&E views P4P with customer targeting as not only a modern, flexible, and accountable method for enabling innovation and achieving energy savings goals, but also as a bridge to an integrated resource paradigm. By establishing rapid and transparent M&V methods with meter-based savings, P4P is poised to establish energy efficiency as a reliable and competitive distributed energy resource. PG&E hopes that meter-based approaches utilizing customer targeting will also be proposed within the non-residential sectors.

### **b) Coordinating Support for DAC, HTR, and the Multifamily Sector**

The 2019 forecast also progresses towards business plan priorities of serving DAC and HTR customers, including within the multifamily sector. PG&E has worked with third-party implementers to expand the list of available measures and streamline customer eligibility requirements for programs that target moderate income, multifamily, and mobile home customers.

Working with the ESA team, PG&E also established an independent Multifamily Single Point of Contact (SPOC) in 2018. This is a focus of the PG&E Business Plan and has been a long-term stakeholder priority. The SPOC will educate multifamily property owners on the best options for EE program participation given their specific needs. The SPOC is now coordinating between the Multifamily Upgrade Program, the Middle Income Direct Install program (MIDI), and ESA, among other integrated opportunities available for multifamily properties.

### **c) Plug Load Market Transformation**

PG&E's Business Plan discusses the need for market transformation to address the plug load and appliance sector. Instead of devoting high levels of downstream incentives, PG&E's 2019 forecast includes continued funding for the Retail Products Platform (RPP), which is designed as a market transformation program that targets retailer profit margins as a fulcrum point to influence full product supply chains. PG&E's RPP program is an important component of the broader Energy Star Retail Products Platform (ESRPP), which PG&E designed in partnership with the U.S. Environmental Protection Agency and the Northwest Energy efficiency Alliance. ESRPP provides California a forum to engage energy efficiency markets on a national scale. Because many retailers and manufactures are national enterprises, PG&E ratepayer benefits must be driven via market transformation, building and leveraging national partnerships.

In less than three years, the ESRPP has expanded to 14 utility sponsors across 12 states, covering roughly 20% of the U.S. population. Several major retailers and buying

groups, representing thousands of smaller retailers, are actively participating. Industry data obtained through ESRPP has already assisted the EPA in their specification development processes and technical roadmap planning. PG&E believes partnerships and interventions like those established in the ESRPP have the potential to transform markets, accelerate code advancement, and help California cost-effectively achieve the aggressive SB 350 savings targets.

In addition to ESRPP, which is currently focused on brick and mortar stores, PG&E is also forecasting for continued support of the Energy Efficiency Marketplace.<sup>66</sup> The Marketplace webpage provides customers efficiency scores for both rebated and non-rebated product categories. Marketplace hosted an estimated 500,000 unique visitors from 2015 – 2017 and a recent study reported that 77 – 88% of savings are attributable to Marketplace alone (without rebates).<sup>67</sup> Based on this research, the current forecast represents PG&E's intention to claim savings for the first time for non-rebated efficient purchases via Marketplace. For many plug-load devices, efficiency is not correlated to product price.<sup>68</sup> Therefore helping customers factor efficiency information into their purchasing decisions can often influence savings without burdening participants with extra cost.

Together, PG&E's RPP program and the online Marketplace are modern program designs that can transform markets and leverage the connectivity advantages of the internet.

#### **d) Financing offerings and reduced reliance on “one-way” incentives**

Reducing customers' reliance on incentives is a core vision in PG&E's Business Plan, and access to financing is a foundational avenue to realizing that vision. OBF is becoming an increasingly important part of the EE portfolio, reflected in the rapid growth in program participation. PG&E lent \$17 million in 2016 and \$24 million in 2017; PG&E anticipates lending over \$40 million in 2018.

PG&E has expanded the breadth of financing offerings by implementing the OBF Alternative Pathway. This program allows loans to be made for projects which do not offer rebates or incentives; instead, third-party engineering reviews provide oversight of savings estimates. Additionally, impact evaluations have shown that using OBF leads to increased net savings, providing PG&E even more reason to further develop financing offerings.<sup>69</sup>

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<sup>66</sup> <https://marketplace.pge.com/>

<sup>67</sup> *Assessment of PG&E's Online Marketplace*, Research Into Action, (2018).

<sup>68</sup> *Empowering Low-Income Customers to Shop Energy Smart at Scale*, A. A. Niederberger, ACEEE (2018)

<sup>69</sup> [http://www.calmac.org/publications/PY2015\\_On-Bill\\_Finance\\_Impact\\_Evaluation\\_FINAL.pdf](http://www.calmac.org/publications/PY2015_On-Bill_Finance_Impact_Evaluation_FINAL.pdf)

Following strong performance of the loans, with default rates of 0.15%, PG&E is proposing changes to OBF to allow for larger loans in the program.<sup>70</sup> This, along with the Alternative Pathway, will allow third party implementers greater flexibility to design programs with OBF as the primary incentive.

### **e) Strategic Energy Management and NMEC**

PG&E considers Strategic Energy Management (SEM) a cornerstone of its long-term industrial strategy, as it not only promotes operational and organizational EE benefits and captures stranded energy savings, but it also supports corporate sustainability for large energy consuming customers. PG&E plans to take learnings from Industrial SEM and apply them to other non-residential sectors in the hopes of expanding SEM broadly.

PG&E launched two Strategic Energy Management (SEM) channels under the SEM program in 2018 – one for manufacturing and one for food and beverage processing facilities. The SEM program incorporates numerous customer interventions such as advanced coaching, comprehensive technical services, incentive mechanisms, and normalized meter-based savings quantification. The program generated substantial interest among qualified customers and was fully subscribed not long after its launch. PG&E looks forward to obtaining early results and building upon them to scale SEM.

### **f) Challenges**

The structural restraints of the current TRC calculation have posed challenges to other important PG&E Business Plan objectives, including supporting workforce development, driving toward deeper savings and whole-building interventions, and serving a high fraction of DAC and HTR customers. Many of these challenges are described above. PG&E is committed to working with stakeholders, the Commission, and third parties to find ways to make progress toward these goals.

Additionally, while savings claims remain rooted in an attribution-based, highly complex ex-ante framework, PG&E will continue to experience challenges in modernizing the EE portfolio. For example, the recently-released draft DEER update resolution recommends applying a 0.5 factor to the NTG for all NMEC projects.<sup>71</sup> Rationale for this dramatic savings cut, proposed before NMEC programs are even established, includes theoretical considerations around the dual baseline framework, which was developed for early retirement baseline considerations. The NMEC platform has the potential to extend far beyond traditional considerations around early retirement projects. NMEC holds the promise of making energy efficiency more flexible, accountable, holistic, and relevant for customers. Without even addressing the soundness of the logic presented in the DEER resolution, application of this guidance would have major, negative practical implications for PAs ability to reestablish energy efficiency as a reliable,

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<sup>70</sup> As discussed in the Financing Programs section.

<sup>71</sup> Draft Resolution E-4952, released August 28, 2018, p.44-45.



scalable resource that can compete in the real market. As third parties consider NMEC as an option they will be challenged to find innovative ways to deliver accountable savings and demonstrable customer benefits. An additional NTG factor of 0.5 would instead serve as a strong push to traditional program designs centered around individual deemed measures and custom savings.

## **I. EM&V**

PG&E proposes a PG&E EM&V budget of \$12,291,180, consistent with the 4% EM&V budget cap originally adopted in D.09-09-047 and further reviewed and upheld in subsequent EE budget Decisions<sup>72</sup>. Following that same guidance, Table 11 reflects the 4% EM&V budget cap for each of the program administrators in PG&E territory. PG&E notes that the EM&V amounts listed in Tables 5 (BayREN) and 7 (MCE) of D. 18-05-041 do not equal 4% of the annual approved funding levels; PG&E has recalculated them here to reflect the standard 4%. Table 10 also includes PG&E's portion of 3C-REN's budget, and 4% of that for EM&V.

D.16-08-019 established grounds to revise the allocation of EM&V fund split between Commission and IOU EM&V efforts - beginning after the EE Business Plans are approved by the Commission - to at least 60% reserved for Commission staff evaluation efforts and up to 40% for PAs<sup>73</sup>.

Table 11 presents the allocation as requested by PG&E, BayREN, MCE and 3C-REN in their 2019 ABAL. These allocation requests vary by PA because it does not seem appropriate that PG&E's requested allocation of 33% should preclude another PA from requesting the authorized 40%, nor should it force a reduction in the CPUC's portion where another PA requests a lower percentage split.

Overall, these allocations result in a total of 67% for CPUC EM&V, which is above the required 60%.<sup>74</sup> Both BayREN and 3C-REN are requesting 27.5% of their EM&V 4%, MCE is requesting 40%, and PG&E is requesting 33%. PG&E's requested allocation of 33% provides sufficient funding for typical evaluation needs, as well as expected additional evaluation costs due to an increase in NMEC and P4P program designs. This request is in line with the expanded budget justifications outlined in D.16-08-019.

Clarification from the CPUC would be helpful if there is disagreement with the calculations and interpretations underlying these EM&V amounts and funding splits.

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<sup>72</sup> D. 10-04-029, D.12-05-015, D.14-10-046, D.15-10-028, D.16-08-019

<sup>73</sup> D.16-08-019, OP 16.

<sup>74</sup> Consistent with PG&E's 2015 funding proposal (approved in PG&E Advice Letter 3541-G-C/4550-E-C), PG&E proposes to apply the split to the EM&V budget, and then add the benefits burdens amount to PG&E's portion of the EM&V budget to align with recorded expenditures.

PG&E provides the following 2019 EM&V budget in Table 11.

**Table 11: 2019 EM&V Budget**

| PA              | PA Total without EM&V | Ratio of PA Total without EM&V | EM&V         | EM&V CPUC   | EM&V PA     | PA Total with EM&V |
|-----------------|-----------------------|--------------------------------|--------------|-------------|-------------|--------------------|
| PG&E            | \$294,988,322         | 89.53%                         | \$12,291,180 | \$8,235,091 | \$4,056,089 | \$307,279,502      |
| BayREN          | \$23,557,000          | 7.15%                          | \$981,542    | \$711,618   | \$269,924   | \$24,538,542       |
| MCE             | \$8,204,000           | 2.49%                          | \$341,833    | \$205,100   | \$136,733   | \$8,545,833        |
| 3C-REN          | \$2,719,766           | 0.83%                          | \$113,324    | \$82,160    | \$31,164    | \$2,833,090        |
| Portfolio Total | \$329,469,088         | 100.00%                        | \$13,727,879 | \$9,233,968 | \$4,493,911 | \$343,196,967      |

Table 11, above, notes:

- 2019 BayREN and MCE budgets are the approved budgets per the Business Plan Decision D.18-05-041, with EM&V increased to 4% of the program budgets.
- 2019 3C-REN budget is the proposed contribution for PG&E as circulated by 3C-REN on August 28, 2018.
- The above table uses the following CPUC/PA percentage splits: 67/33 for PG&E; 72.5/27.5 for BayREN; 60/40 for MCE; 72.5/27.5 for 3C-REN

#### **J. 2017 Metrics**

Pursuant to D.18-05-041, PG&E provides sector-level metrics, and their associated targets, for program year 2017 in Attachment 5.

#### **K. Budget and Savings True-Up**

PG&E has revised its forecasted budget and savings true-ups for the Business Plan duration through program year 2025. For program year 2018, PG&E has updated the estimates to reflect its 2018 ABAL savings and budget forecast.<sup>75</sup> For program year 2019, PG&E has updated estimates to reflect its 2019 ABAL savings and budget forecast. For Program Years 2020 through 2025, PG&E is retaining its forecasted portfolio budget and savings amounts from its Business Plan. PG&E will reassess savings goals in future years based on solicitation progress and Potential Study updates, and will strive to achieve goals put forth in future Potential Study updates.

To ensure clarity, the budget true up presented in Table 12, below, benefits from additional explanation. The 2018 budget of \$416.7 million is currently approved in

<sup>75</sup> PG&E reviewed its 2018 budget filing data in CEDARS to conform to D.18-05-041, and its current 2018 CEDARS filing data were approved on August 3<sup>rd</sup>, 2018.

CEDARS.<sup>76</sup> This budget represents the portfolio budget approved in the Business Plan Decision,<sup>77</sup> along with increases subsequently approved for the RENs and CCAs.<sup>78</sup>

At the time of this filing, PG&E does not anticipate utilizing the full allotment of the 2018 budget for its 2018 portfolio. In contrast, the 2019 budget in Table 12 of \$343.2 million represents the results of the detailed forecast presented here, which is \$65.6 million less than the authorized budget of \$408.8 million. For the remaining years, 2020 – 2025, Table 12 shows that PG&E is budgeting for \$394.8 million, in alignment with the approved Business Plan budget. Because of the increased allocation approved for the RENs and CCAs in these later years, this represents a decrease in allocated budget for the PG&E programs. Note that the total 2018 – 2025 budget of \$3.125 billion is less than the total approved allocation of \$3.193 billion. The decreased total budget request reflects the lower 2019 budget, which PG&E is not reallocating to future years. As with recent past program years and expectations for 2018 - 2019, PG&E may or may not utilize the full authorized EE budgets in program years 2020 – 2025.

PG&E does not currently have sufficient information to forecast for budget or cost-effectiveness post-2019 as PG&E is no longer proposing, designing or implementing new programs, nor has PG&E yet undertaken extensive solicitations at the time of this filing. The sector-level budgets are intended to be directional in nature and illustrate the funding that may be available to the extent that cost-effective programs are proposed and implemented.

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<sup>76</sup> Ibid.

<sup>77</sup> D.18-05-041, OP 12.

<sup>78</sup> D.18-05-041 pp.101, 112 and OP 12.

**Table 12: PG&E Budget True-Up**

| Sector  | Annual Rolling Portfolio Budget Forecast - True-up |                       |                       |                       |                       |                       |                       |                       |                         | Total |
|---|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------|
|   | 2018 <sup>1</sup>                                  | 2019                  | 2020                  | 2021                  | 2022                  | 2023                  | 2024                  | 2025                  |                         |       |
| Residential   | \$ 79,928,344                                      | \$ 88,269,075         | \$ 98,105,071         | \$ 98,618,410         | \$ 98,937,754         | \$ 98,612,814         | \$ 98,604,233         | \$ 98,329,284         | \$ 759,404,985          |       |
| Commercial  | \$ 93,253,455                                      | \$ 68,402,537         | \$ 81,385,109         | \$ 81,782,912         | \$ 82,030,382         | \$ 81,778,575         | \$ 81,771,926         | \$ 81,558,859         | \$ 651,963,755          |       |
| Industrial  | \$ 44,072,060                                      | \$ 24,785,481         | \$ 29,489,682         | \$ 29,633,825         | \$ 29,723,495         | \$ 29,632,254         | \$ 29,629,844         | \$ 29,552,640         | \$ 246,519,281          |       |
| Agriculture   | \$ 25,828,032                                      | \$ 14,477,981         | \$ 17,225,853         | \$ 17,310,052         | \$ 17,362,431         | \$ 17,309,134         | \$ 17,307,726         | \$ 17,262,629         | \$ 144,083,837          |       |
| Emerging Tech   | \$ 5,629,976                                       | \$ 7,760,943          | \$ 7,654,873          | \$ 7,654,873          | \$ 7,654,873          | \$ 7,654,873          | \$ 7,654,873          | \$ 7,654,873          | \$ 59,320,155           |       |
| Public  | \$ 72,368,174                                      | \$ 40,669,461         | \$ 48,388,389         | \$ 48,624,906         | \$ 48,772,042         | \$ 48,622,328         | \$ 48,618,375         | \$ 48,491,693         | \$ 404,555,369          |       |
| Codes and Standards   | \$ 16,183,839                                      | \$ 20,876,988         | \$ 20,876,988         | \$ 20,876,988         | \$ 20,876,988         | \$ 20,876,988         | \$ 20,876,988         | \$ 20,876,988         | \$ 162,322,753          |       |
| WE&T  | \$ 11,038,180                                      | \$ 9,741,738          | \$ 10,473,354         | \$ 10,473,354         | \$ 10,473,354         | \$ 10,473,354         | \$ 10,473,354         | \$ 10,473,354         | \$ 83,620,042           |       |
| Finance   | \$ 4,158,662                                       | \$ 6,504,117          | \$ 6,504,117          | \$ 6,504,117          | \$ 6,504,117          | \$ 6,504,117          | \$ 6,504,117          | \$ 6,504,117          | \$ 49,687,482           |       |
| OBF Loan Pool   | \$ 13,500,000                                      | \$ 13,500,000         | \$ 20,000,000         | \$ 20,000,000         | \$ 20,000,000         | \$ 20,000,000         | \$ 20,000,000         | \$ 20,000,000         | \$ 147,000,000          |       |
| <b>Subtotal</b>   | <b>\$ 365,960,723</b>                              | <b>\$ 294,988,322</b> | <b>\$ 340,103,436</b> | <b>\$ 341,479,436</b> | <b>\$ 342,335,436</b> | <b>\$ 341,464,436</b> | <b>\$ 341,441,436</b> | <b>\$ 340,704,436</b> | <b>\$ 2,708,477,658</b> |       |
| <b>IOU EM&amp;V</b>   | <b>\$ 15,248,363</b>                               | <b>\$ 12,291,180</b>  | <b>\$ 14,170,976</b>  | <b>\$ 14,228,310</b>  | <b>\$ 14,263,976</b>  | <b>\$ 14,227,685</b>  | <b>\$ 14,226,726</b>  | <b>\$ 14,196,018</b>  | <b>\$ 112,853,236</b>   |       |
| <b>MCE Programs</b>   | <b>\$ 8,545,833</b>                                | <b>\$ 8,545,833</b>   | <b>\$ 12,423,958</b>  | <b>\$ 12,423,958</b>  | <b>\$ 11,015,625</b>  | <b>\$ 11,015,625</b>  | <b>\$ 11,015,625</b>  | <b>\$ 10,887,500</b>  | <b>\$ 85,873,958</b>    |       |
| <b>BayREN Programs</b>  | <b>\$ 23,296,875</b>                               | <b>\$ 24,538,542</b>  | <b>\$ 25,219,792</b>  | <b>\$ 23,786,458</b>  | <b>\$ 24,303,125</b>  | <b>\$ 25,210,417</b>  | <b>\$ 25,234,375</b>  | <b>\$ 26,130,208</b>  | <b>\$ 197,719,792</b>   |       |
| <b>3C-REN Programs</b>  | <b>\$ -</b>  | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 2,833,090</b>   | <b>\$ 19,831,630</b>    |       |
| <b>Total Portfolio Program Year PA Budget<sup>2</sup></b>       | <b>\$ 413,051,795</b>                              | <b>\$ 343,196,967</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 3,124,756,274</b> |       |
| <b>Total Authorized Portfolio PY Budget Cap</b>                 | <b>\$ 416,713,780</b>                              | <b>\$ 408,757,913</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 394,751,252</b> | <b>\$ 3,193,979,205</b> |       |
| <b>IOU Portfolio PY Budget Request<sup>4</sup></b>              | <b>\$ 381,209,086</b>                              | <b>\$ 307,279,502</b> | <b>\$ 354,274,412</b> | <b>\$ 355,707,745</b> | <b>\$ 356,599,412</b> | <b>\$ 355,692,120</b> | <b>\$ 355,668,162</b> | <b>\$ 354,900,454</b> |                         |       |
| <b>IOU Authorized PY Budget Cap<sup>4</sup></b>                 | <b>\$ 396,694,593</b>                              | <b>\$ 388,989,738</b> | <b>\$ 374,399,466</b> | <b>\$ 374,399,466</b> | <b>\$ 374,399,466</b> | <b>\$ 374,399,466</b> | <b>\$ 374,399,466</b> | <b>\$ 374,399,466</b> |                         |       |
| <b>Forecast Portfolio PY TRC - w/out C&amp;S (through 2022)</b> | <b>1.01</b>  | <b>1.07</b>           | <b>1.03</b>           | <b>1.03</b>           | <b>1.03</b>           | <b>1.25+</b>          | <b>1.25+</b>          | <b>1.25+</b>          |                         |       |
| <b>Forecast Portfolio PY PAC - w/out C&amp;S (through 2022)</b> | <b>1.45</b>  | <b>1.47</b>           | <b>1.27</b>           | <b>1.27</b>           | <b>1.27</b>           | <b>1.25+</b>          | <b>1.25+</b>          | <b>1.25+</b>          |                         |       |

<sup>1</sup>"Reset" 2018 budget at or below 2018 annual budget approved in Business plan Decision. "True-up" years 2019-2025. 2018 budget represents PG&E's 2018 CEDARS Filing Budget (with \$548K DSM split 50/50 Res/Com) and the BP Decision Authorized 2018 budgets for BayREN and MCE, adjusted for 4% EM&V. 4.

<sup>2</sup>This is what PG&E intends to spend in the PY, including carryovers, as well as the amount by which Statewide 25% requirement will be measured, with the inclusion of statewide program budgets authorized in D.13-09-044 and D.16-09-020

<sup>3</sup>Sum of all PA budgets in IOU Service Area

<sup>4</sup>IOU only Subtotal (Line 13) + IOU EM&V (Line 14)

<sup>5</sup>2019 BayREN and MCE budgets are the authorized amounts from the BP Decision, with their EM&V budget increased to be 4% of their total budget. 2020-2025 BayREN and MCE budgets are the authorized amounts from the BP Decision, with their EM&V budget increased to be 4% of their total budget.

<sup>6</sup>2019 3C-REN budget is the proposed contribution for PG&E as circulated by 3C-REN on August 28, 2018, which includes 4% EM&V. Used same budget for 2020-2025.

**Table 13: PG&E kWh True-Up**

| Sector                                  | Annual Rolling Portfolio Savings Forecast - True-up (kWh) <sup>1</sup> |                    |                    |                    |                    |                    |                    |                    |
|---|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|   | 2018   | 2019               | 2020               | 2021               | 2022               | 2023               | 2024               | 2025               |
| Residential                             | 221,707,977  | 206,699,293        | 165,000,000        | 163,000,000        | 169,000,000        | 175,000,000        | 181,000,000        | 181,000,000        |
| Commercial                              | 148,582,487  | 92,335,828         | 140,000,000        | 148,000,000        | 158,000,000        | 167,000,000        | 180,000,000        | 180,000,000        |
| Industrial                              | 75,513,811   | 36,750,463         | 40,000,000         | 39,000,000         | 39,000,000         | 38,000,000         | 38,000,000         | 38,000,000         |
| Agriculture                             | 52,381,675   | 29,846,734         | 40,000,000         | 40,000,000         | 41,000,000         | 42,000,000         | 43,000,000         | 43,000,000         |
| Emerging Tech                           | n/a  | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                |
| Public                                  | 90,491,009   | 50,798,624         | 29,000,000         | 29,000,000         | 29,000,000         | 30,000,000         | 30,000,000         | 30,000,000         |
| WE&T                                    | n/a  | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                |
| Finance <sup>2</sup>                    | 4,328,542  | 63,333,333         | -                  | -                  | -                  | -                  | -                  | -                  |
| OBF Loan Pool <sup>2</sup>              | n/a  | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                | n/a                |
| <b>IOU - Subtotal</b>                   | <b>593,005,502</b>   | <b>479,764,276</b> | <b>414,000,000</b> | <b>419,000,000</b> | <b>436,000,000</b> | <b>452,000,000</b> | <b>472,000,000</b> | <b>472,000,000</b> |
| <b>ESA Savings</b>                      | <b>30,994,498</b>  | <b>96,463,923</b>  | <b>TBD</b>         | <b>TBD</b>         | <b>TBD</b>         | <b>TBD</b>         | <b>TBD</b>         | <b>TBD</b>         |
| <b>MCE Programs</b>                     | <b>19,319,492</b>  | <b>19,319,492</b>  | <b>22,549,802</b>  | <b>22,549,802</b>  | <b>78,004,696</b>  | <b>78,004,696</b>  | <b>78,004,696</b>  | <b>78,004,696</b>  |
| <b>BayREN Programs</b>                  | <b>6,957,000</b>   | <b>6,957,000</b>   | <b>6,957,000</b>   | <b>21,259,000</b>  | <b>21,259,000</b>  | <b>21,259,000</b>  | <b>21,259,000</b>  | <b>27,227,000</b>  |
| <b>3C-REN Programs</b>                  | <b>706,000</b>   | <b>706,000</b>     | <b>1,628,000</b>   | <b>1,628,000</b>   | <b>1,628,000</b>   | <b>2,765,000</b>   | <b>2,765,000</b>   | <b>2,765,000</b>   |
| <b>Total Forecast Portfolio Savings</b> | <b>624,000,000</b>   | <b>576,228,199</b> | <b>414,000,000</b> | <b>419,000,000</b> | <b>436,000,000</b> | <b>452,000,000</b> | <b>472,000,000</b> | <b>472,000,000</b> |
| CPUC Goal                               | 448,000,000  | 524,000,000        | 517,000,000        | 558,000,000        | 568,000,000        | 576,000,000        | 588,000,000        | 605,000,000        |
| % of Goal                               | 139%   | 110%               | 80%                | 75%                | 77%                | 78%                | 80%                | 78%                |
| Codes and Standards                     | 856,811,593  | 659,736,442        | 381,000,000        | 326,000,000        | 295,000,000        | 254,000,000        | 240,000,000        | 240,000,000        |

<sup>1</sup> Numbers for 2020 - 2025 represent savings forecast as presented in the Business Plan. PG&E will reassess savings goals in future years based on solicitation progress and Potential Study updates, and will strive to achieve goals put forth in future Potential Study updates.

<sup>2</sup> Savings from Financing and OBF Loan Pool projects are rolled into the savings forecasts for the sectors above for program years 2020 - 2025.

**Table 14: PG&E kW True-Up**

| <b>Sector</b>   | <b>Annual Rolling Portfolio Savings Forecast - True-up (kW)<sup>1</sup></b> |                |               |               |               |               |               |               |
|---|---|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
|   | 2018  | 2019           | 2020          | 2021          | 2022          | 2023          | 2024          | 2025          |
| Residential   | 35,617  | 41,571         | 11,800        | 10,900        | 10,400        | 8,700         | 8,700         | 9,900         |
| Commercial  | 22,318  | 16,360         | 28,700        | 30,500        | 32,500        | 36,700        | 41,200        | 44,700        |
| Industrial  | 13,947  | 4,424          | 4,000         | 3,900         | 3,800         | 3,700         | 3,600         | 3,600         |
| Agriculture   | 10,099  | 9,083          | 2,400         | 2,500         | 2,500         | 2,600         | 2,600         | 2,700         |
| Emerging Tech   | n/a   | n/a            | n/a           | n/a           | n/a           | n/a           | n/a           | n/a           |
| Public  | 12,633  | 7,581          | 2,800         | 3,000         | 3,300         | 3,900         | 4,400         | 4,900         |
| WE&T  | n/a   | n/a            | n/a           | n/a           | n/a           | n/a           | n/a           | n/a           |
| Finance <sup>2</sup>                                    | 992   | 12,033         | -             | -             | -             | -             | -             | -             |
| OBF Loan Pool <sup>2</sup>                              | n/a   | n/a            | n/a           | n/a           | n/a           | n/a           | n/a           | n/a           |
| <b>IOU - Subtotal</b>                                   | <b>95,606</b>   | <b>91,052</b>  | <b>49,700</b> | <b>50,800</b> | <b>52,500</b> | <b>55,600</b> | <b>60,500</b> | <b>65,800</b> |
| <b>ESA Savings</b>                                      | <b>66,394</b>   | <b>13,327</b>  | <b>TBD</b>    | <b>TBD</b>    | <b>TBD</b>    | <b>TBD</b>    | <b>TBD</b>    | <b>TBD</b>    |
| <b>MCE Programs</b>                                     | <b>1,710</b>  | <b>1,710</b>   | <b>1,251</b>  | <b>1,251</b>  | <b>3,595</b>  | <b>3,595</b>  | <b>3,595</b>  | <b>3,595</b>  |
| <b>BayREN Programs</b>                                  | <b>1,770</b>  | <b>1,770</b>   | <b>1,770</b>  | <b>5,560</b>  | <b>5,560</b>  | <b>5,560</b>  | <b>5,560</b>  | <b>9,570</b>  |
| <b>3C-REN Programs</b>                                  | <b>500</b>  | <b>500</b>     | <b>1,200</b>  | <b>1,200</b>  | <b>1,200</b>  | <b>2,100</b>  | <b>2,100</b>  | <b>2,100</b>  |
| <b>Total Forecast Portfolio Savings (w/out C&amp;S)</b> | <b>162,000</b>  | <b>104,379</b> | <b>49,700</b> | <b>50,800</b> | <b>52,500</b> | <b>55,600</b> | <b>60,500</b> | <b>65,800</b> |
| CPUC Goal   | 84,000  | 100,000        | 97,000        | 106,000       | 108,000       | 110,000       | 112,000       | 116,000       |
| % of Goal   | 193%  | 104%           | 51%           | 48%           | 49%           | 51%           | 54%           | 57%           |
| Codes and Standards                                     | 165,202   | 150,796        | 101,000       | 94,000        | 90,000        | 84,000        | 82,000        | 82,000        |

<sup>1</sup> Numbers for 2020 - 2025 represent savings forecast as presented in the Business Plan. PG&E will reassess savings goals in future years based on solicitation progress and Potential Study updates, and will strive to achieve goals put forth in future Potential Study updates.

<sup>2</sup> Savings from Financing and OBF Loan Pool projects are rolled into the savings forecasts for the sectors above for program years 2020 - 2025.

**Table 15: PG&E Therm True-Up**

| Sector  | Annual Rolling Portfolio Savings Forecast - True-up (therms) <sup>1</sup> |                   |                   |                   |                   |                   |                   |                   |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|   | 2018  | 2019              | 2020              | 2021              | 2022              | 2023              | 2024              | 2025              |
| Residential   | 4,483,968   | 7,329,069         | 5,700,000         | 5,700,000         | 6,000,000         | 6,200,000         | 6,700,000         | 7,200,000         |
| Commercial  | 4,653,218   | 4,723,388         | 1,900,000         | 2,100,000         | 2,300,000         | 2,500,000         | 2,700,000         | 2,800,000         |
| Industrial  | 7,148,899   | 2,544,470         | 4,300,000         | 4,200,000         | 4,200,000         | 4,100,000         | 4,100,000         | 4,000,000         |
| Agriculture   | 1,227,494   | 500,326           | 200,000           | 200,000           | 200,000           | 200,000           | 200,000           | 200,000           |
| Emerging Tech   | n/a   | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               |
| Public  | 854,024   | 420,307           | 300,000           | 400,000           | 400,000           | 500,000           | 500,000           | 500,000           |
| WE&T  | n/a   | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               |
| Finance <sup>2</sup>                                    | 421,791   | 3,907,667         | -                 | -                 | -                 | -                 | -                 | -                 |
| OBF Loan Pool <sup>2</sup>                              | n/a   | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               | n/a               |
| <b>IOU - Subtotal</b>                                   | <b>18,789,394</b>   | <b>19,425,227</b> | <b>12,400,000</b> | <b>12,600,000</b> | <b>13,100,000</b> | <b>13,500,000</b> | <b>14,200,000</b> | <b>14,700,000</b> |
| <b>ESA Savings</b>                                      | <b>510,606</b>  | <b>(296,372)</b>  | <b>TBD</b>        | <b>TBD</b>        | <b>TBD</b>        | <b>TBD</b>        | <b>TBD</b>        | <b>TBD</b>        |
| <b>MCE Programs</b>                                     | <b>815,817</b>  | <b>815,817</b>    | <b>1,555,065</b>  | <b>1,555,065</b>  | <b>5,219,615</b>  | <b>5,219,615</b>  | <b>5,219,615</b>  | <b>5,219,615</b>  |
| <b>BayREN Programs</b>                                  | <b>900,000</b>  | <b>900,000</b>    | <b>900,000</b>    | <b>1,927,000</b>  | <b>1,927,000</b>  | <b>1,927,000</b>  | <b>1,927,000</b>  | <b>2,577,000</b>  |
| <b>3C-REN Programs</b>                                  | <b>65,000</b>   | <b>65,000</b>     | <b>157,000</b>    | <b>157,000</b>    | <b>157,000</b>    | <b>276,000</b>    | <b>276,000</b>    | <b>276,000</b>    |
| <b>Total Forecast Portfolio Savings (w/out C&amp;S)</b> | <b>19,300,000</b>   | <b>19,128,855</b> | <b>12,400,000</b> | <b>12,600,000</b> | <b>13,100,000</b> | <b>13,500,000</b> | <b>14,200,000</b> | <b>14,700,000</b> |
| CPUC Goal   | 17,000,000  | 19,000,000        | 18,000,000        | 20,000,000        | 23,000,000        | 24,000,000        | 24,000,000        | 24,000,000        |
| % of Goal   | 114%  | 101%              | 69%               | 63%               | 57%               | 56%               | 59%               | 61%               |
| Codes and Standards                                     | 15,397,524  | 16,394,386        | 6,000,000         | 6,000,000         | 6,000,000         | 6,000,000         | 5,000,000         | 5,000,000         |

<sup>1</sup> Numbers for 2020 - 2025 represent savings forecast as presented in the Business Plan. PG&E will reassess savings goals in future years based on solicitation progress and Potential Study updates, and will strive to achieve goals put forth in future Potential Study updates.

<sup>2</sup> Savings from Financing and OBF Loan Pool projects are rolled into the savings forecasts for the sectors above for program years 2020 - 2025.

This submittal will not increase any rate or charge, cause the withdrawal of service, or conflict with any other rate schedule or rule.

### **Protests**

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than September 24, 2018, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division  
ED Tariff Unit  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102

Facsimile: (415) 703-2200  
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via e-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson  
Director, Regulatory Relations  
c/o Megan Lawson  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B13U  
P.O. Box 770000  
San Francisco, California 94177

Facsimile: (415) 973-3582  
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).



**Effective Date**

PG&E requests that this Tier 2 advice filing become effective on January 1, 2019.

**Notice**

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service lists for R.13-11-005, A.17-01-013 et al. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process\_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

\_\_\_\_\_  
/S/

Erik Jacobson  
Director, Regulatory Relations

**Attachments**

- Attachment 1 – California Energy Data and Reporting System (CEDARS) Filing Confirmation
- Attachment 2 – Appendices
- Attachment 3 – Caps and Targets Tables
- Attachment 4 – Program Closures
- Attachment 5 – Sector Level Metrics: Progress to Date

cc: Peter Franzese, Energy Division  
Service List R.13-11-005  
Service List A.17-01-013 et al.



# ADVICE LETTER SUMMARY



## ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39M)

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Yvonne Yang

Phone #: (415)973-2094

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: QXY1@pge.com

### EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas      WATER = Water  
 PLC = Pipeline      HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 4011-G/5375-E

Tier Designation: 2

Subject of AL: PG&E's 2019 Energy Efficiency Annual Budget Advice Letter in Compliance with Decisions 15-10-028 and 18-05-041

Keywords (choose from CPUC listing): Energy Efficiency, Compliance

AL Type:  Monthly  Quarterly  Annual  One-Time  Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D. 15-10-028 and D. 18-05-041

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested?  Yes  No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required?  Yes  No

Requested effective date: 1/1/19

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed<sup>1</sup>: N/A

Pending advice letters that revise the same tariff sheets: N/A

<sup>1</sup>Discuss in AL if more space is needed.

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102  
Email: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Name: Erik Jacobson, c/o Megan Lawson  
Title: Director, Regulatory Relations  
Utility Name: Pacific Gas and Electric Company  
Address: 77 Beale Street, Mail Code B13U  
City: San Francisco, CA 94177  
State: California Zip: 94177  
Telephone (xxx) xxx-xxxx: (415)973-2093  
Facsimile (xxx) xxx-xxxx: (415)973-3582  
Email: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

Name:  
Title:  
Utility Name:  
Address:  
City:  
State: District of Columbia Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

Advice 4011-G/5375-E  
September 4, 2018

## **Attachment 1**

# **California Energy Data and Reporting System (CEDARS) Filing Confirmation**

## CEDARS FILING SUBMISSION RECEIPT

The PGE portfolio filing has been submitted and is now under review. A summary of the filing is provided below.

PA: Pacific Gas & Electric (PGE)

Filing Year: 2019

Submitted: 16:59:11 on 30 Aug 2018

By: Breesa Collyer

Advice Letter Number: 4011-G/5375-E

### \* Portfolio Filing Summary \*

- TRC: 1.2803
- PAC: 3.7101
- TRC (no admin): 1.6731
- PAC (no admin): 11.6109
- RIM: 0.578
- Budget: \$293,779,502.05

### \* Programs Included in the Filing \*

- PGE21001: Residential Energy Advisor
- PGE210010: Pay for Performance Pilot
- PGE210011: Residential Energy Fitness program
- PGE21002: Residential Energy Efficiency
- PGE21003: Multifamily Energy Efficiency
- PGE21004: Energy Upgrade California
- PGE21005: Residential New Construction
- PGE21006: Residential HVAC
- PGE21007: California New Homes Multifamily
- PGE21008: Enhance Time Delay Relay
- PGE21009: Direct Install for Manufactured and Mobile Homes
- PGE21011: Commercial Calculated Incentives
- PGE210112: School Energy Efficiency
- PGE210119: LED Accelerator
- PGE21012: Commercial Deemed Incentives
- PGE210123: Healthcare Energy Efficiency Program
- PGE21013: Commercial Continuous Energy Improvement

- PGE210135: Water Infrastructure and System Efficiency
- PGE210139: SEI Energize Schools Program
- PGE21014: Commercial Energy Advisor
- PGE210143: Hospitality Program
- PGE21015: Commercial HVAC
- PGE21018: EnergySmart Grocer
- PGE21021: Industrial Calculated Incentives
- PGE210210: Industrial Recommissioning Program
- PGE210211: Light Industrial Energy Efficiency
- PGE210212: Compressed Air and Vacuum Optimization Program
- PGE210213: Small Petrochemical Energy Efficiency
- PGE21022: Industrial Deemed Incentives
- PGE21023: Industrial Continuous Energy Improvement
- PGE21024: Industrial Energy Advisor
- PGE21025: California Wastewater Process Optimization
- PGE21026: Energy Efficiency Services for Oil Production
- PGE21027: Heavy Industry Energy Efficiency Program
- PGE21029: Refinery Energy Efficiency Program
- PGE21030: Industrial Strategic Energy Management
- PGE21031: Agricultural Calculated Incentives
- PGE210311: Process Wastewater Treatment EM Pgm for Ag Food Processing
- PGE210312: Dairy and Winery Industry Efficiency Solutions
- PGE21032: Agricultural Deemed Incentives
- PGE21033: Agricultural Continuous Energy Improvement
- PGE21034: Agricultural Energy Advisor
- PGE21036: Industrial Refrigeration Performance Plus
- PGE21039: Comprehensive Food Process Audit & Resource Efficiency Pgm
- PGE21041: Primary Lighting
- PGE21042: Lighting Innovation
- PGE21043: Lighting Market Transformation
- PGE21051: Building Codes Advocacy
- PGE21052: Appliance Standards Advocacy
- PGE21053: Compliance Improvement
- PGE21054: Reach Codes
- PGE21055: Planning and Coordination
- PGE21056: Code Readiness
- PGE21057: National Codes and Standards Advocacy
- PGE21061: Technology Development Support
- PGE21062: Technology Assessments
- PGE21063: Technology Introduction Support
- PGE21071: Integrated Energy Education and Training
- PGE21072: Connections

- PGE21073: Strategic Planning
- PGE21076: Career and Workforce Readiness
- PGE21081: Statewide DSM Coordination & Integration
- PGE21091: On-Bill Financing (excludes Loan Pool)
- PGE210911: On-Bill Financing Alternative Pathway
- PGE21091LP: Financing Loan Pool Addition
- PGE21092: Third-Party Financing
- PGE21093: New Financing Offerings
- PGE2110011: California Community Colleges
- PGE2110012: University of California/California State University
- PGE2110013: State of California
- PGE2110014: Department of Corrections and Rehabilitation
- PGE2110051: Local Government Energy Action Resources (LGEAR)
- PGE2110052: Strategic Energy Resources
- PGE211007: Association of Monterey Bay Area Governments (AMBAG)
- PGE211009: East Bay
- PGE211010: Fresno
- PGE211011: Kern
- PGE211012: Madera
- PGE211013: Marin County
- PGE211014: Mendocino/Lake County
- PGE211015: Napa County
- PGE211016: Redwood Coast
- PGE211018: San Luis Obispo County
- PGE211019: San Mateo County
- PGE211020: Santa Barbara
- PGE211021: Sierra Nevada
- PGE211022: Sonoma County
- PGE211023: Silicon Valley
- PGE211024: San Francisco
- PGE211025: Savings by Design (SBD)
- PGE211026: North Valley
- PGE211027: Sutter Buttes
- PGE211028: Yolo
- PGE211029: Solano
- PGE211030: Northern San Joaquin Valley
- PGE211031: Valley Innovative Energy Watch (VIEW)
- PGE\_EMV: Evaluation Measurement and Verification
- PGE\_ESA: Energy Savings Assistance
- PGE\_ESPI: Energy Savings Performance Index
- PGE\_SWMEO: Statewide Marketing Education and Outreach
- PGE\_WATER: Water Energy Nexus

Advice 4011-G/5375-E  
September 4, 2018

## **Attachment 2**

### **Appendices**



**PA Name:** Pacific Gas and Electric Company  
**Budget Year:** 2019

| <b>Table 1 -Bill Payer Impacts - Rates by Customer Class</b> |   |  |  |  |  |
|--|---|--|--|--|--|
|  | <b>Electric Average Rate (Res and Non-Res) \$/kwh</b> | <b>Gas Average Rate (Res and Non-Res) \$/therm</b> | <b>Total Average Bill Savings by Year (\$)</b> | <b>Total Average Lifecycle Bill Savings (\$)</b> |  |
| <b>Present Rates - System Average</b>                        |   |  |  |  |  |
| 2013   | \$ 0.16088  | \$ 1.18081   | \$ 152,246,518                                 | \$ 1,553,692,551                                 |  |
| 2014   | \$ 0.16891  | \$ 1.24800   | \$ 161,566,746                                 | \$ 1,557,176,408                                 |  |
| 2015   | \$ 0.17094  | \$ 1.50984   | \$ 226,868,285                                 | \$ 2,396,414,536                                 |  |
| 2016   | \$ 0.18423  | \$ 1.66679   | \$ 263,727,662                                 | \$ 2,670,876,906                                 |  |
| 2017   | \$ 0.19092  | \$ 1.59360   | \$ 300,032,228                                 | \$ 3,316,129,816                                 |  |
| <b>2018</b>  | \$ 0.19545  | \$ 1.53810   | \$ 277,809,754                                 | \$ 3,064,704,836                                 |  |

Notes:

- 1) Average first year electric bill savings is calculated by multiplying an average electric rate with first year net kWh energy savings.
- 2) Average first year gas bill savings is calculated by multiplying an average gas rate with first year net therm energy savings.
- 3) Total average first year bill savings is the sum of Notes 1 and 2.
- 4) Average lifecycle electric bill savings is calculated by multiplying an average electric rate with lifecycle net kWh energy savings.
- 5) Average lifecycle gas bill savings is calculated by multiplying an average gas rate with lifecycle net therm energy savings.
- 6) Total average lifecycle bill savings is the sum of Notes 4 and 5.
- 7) As of 3/1/2018, the bundles average electric rate is \$0.19545
- 8) As of 7/1/2018, the bundled average gas rate is \$1.507 per therm before the impact of EE programs.
- 9) Total Average Bill Savings by Year and Lifecycle Bill Savings include C&S net lifecycle savings and exclude ESA Programs.
- 10) Consistent with SPM TRC/PAC/RIM tests, all savings used from actuals and forecasts in this table are net not gross

Table 2a - Electric Bill Payer Impacts - Current and Proposed Revenues and Rates, Total and Energy Efficiency, by Customer Class

| Customer Classes             | 2017 Total Electric Annual Revenue \$000 | 2017 Energy Efficiency Portion of Total Electric Annual Revenue \$000 | 2018 Energy Efficiency Portion of Total Electric Annual Revenue \$000 | 2019 Proposed Energy Efficiency Electric Annual Revenue Change \$000 | 2019 Proposed Percentage Change In Electric Revenue and Rates | 2017 Electric Average Rate \$/kwh | 2017 Energy Efficiency Portion of Electric Average Rate \$/kwh | 2018 Electric Average Rate \$/kwh | 2018 Energy Efficiency Portion of Electric Average Rate \$/kwh | 2019 Proposed Electric Average Rate Change \$/kwh | 2019 Proposed Percentage Change In Electric Revenue and Rates |
|------------------------------|--|---|---|--|---|-----------------------------------|--|-----------------------------------|--|---|---|
| <b>Bundle</b>                | \$ 1,122,944                             | \$ 124,851  | \$ 92,173   | \$ (3,477)   | -3.77%  | \$ 0.20396                        | \$ 0.00497   | \$ 0.20143                        | \$ 0.00502   | \$ (0.00019)                                      | -0.09%  |
| Residential                  | \$ 1,602,138                             | \$ 38,452   | \$ 27,272   | \$ (732)   | -2.68%  | \$ 0.22870                        | \$ 0.00549   | \$ 0.23599                        | \$ 0.00556   | \$ (0.00015)                                      | -0.06%  |
| Commercial - Small           | \$ 1,524,973                             | \$ 33,958   | \$ 22,671   | \$ 461   | 2.04%   | \$ 0.20346                        | \$ 0.00453   | \$ 0.21265                        | \$ 0.00458   | \$ 0.00009  | 0.04%   |
| Commercial - Medium          | \$ 1,559,370                             | \$ 34,938   | \$ 26,520   | \$ 420   | 1.58%   | \$ 0.17785                        | \$ 0.00398   | \$ 0.18398                        | \$ 0.00402   | \$ 0.00007  | 0.04%   |
| Commercial - Large           | \$ 61,810                                | \$ 1,521  | \$ 964  | \$ 2   | 0.20%   | \$ 0.21969                        | \$ 0.00541   | \$ 0.23995                        | \$ 0.00546   | \$ 0.00002  | 0.01%   |
| Streetslights                | \$ 75,282                                | \$ 1,801  | \$ 1,571  | \$ 97  | 6.19%   | \$ 0.14760                        | \$ 0.00353   | \$ 0.17169                        | \$ 0.00492   | \$ 0.00031  | 0.18%   |
| Standby                      | \$ 1,161,575                             | \$ 23,905   | \$ 21,161   | \$ (627)   | -2.96%  | \$ 0.17822                        | \$ 0.00367   | \$ 0.20053                        | \$ 0.00400   | \$ (0.00012)                                      | -0.06%  |
| Agricultural                 | \$ 1,378,895                             | \$ 27,548   | \$ 21,209   | \$ 316   | 1.49%   | \$ 0.14202                        | \$ 0.00284   | \$ 0.14901                        | \$ 0.00287   | \$ 0.00004  | 0.03%   |
| Agricultural                 | \$ 398,611                               | \$ 12,699   | \$ 46,775   | \$ (1,764)   | -3.77%  | \$ 0.15581                        | \$ 0.00497   | \$ 0.15239                        | \$ 0.00502   | \$ (0.00019)                                      | -0.12%  |
| <b>Direct Access Service</b> | \$ 186,164                               | \$ 6,261  | \$ 16,878   | \$ (453)   | -2.68%  | \$ 0.16321                        | \$ 0.00549   | \$ 0.15586                        | \$ 0.00556   | \$ (0.00015)                                      | -0.09%  |
| Residential                  | \$ 232,698                               | \$ 8,800  | \$ 23,339   | \$ 415   | 2.04%   | \$ 0.11979                        | \$ 0.00453   | \$ 0.12139                        | \$ 0.00458   | \$ 0.00009  | 0.07%   |
| Commercial - Small           | \$ 389,235                               | \$ 17,525   | \$ 24,659   | \$ 391   | 1.58%   | \$ 0.08850                        | \$ 0.00398   | \$ 0.08976                        | \$ 0.00402   | \$ 0.00007  | 0.08%   |
| Commercial - Medium          | \$ 6,259                                 | \$ 283  | \$ 543  | \$ 1   | 0.20%   | \$ 0.11940                        | \$ 0.00541   | \$ 0.15663                        | \$ 0.00546   | \$ 0.00002  | 0.01%   |
| Commercial - Large           | \$ 355                                   | \$ 16   | \$ 3  | \$ 0   | 6.19%   | \$ 0.07736                        | \$ 0.00353   | \$ 0.24901                        | \$ 0.00492   | \$ 0.00031  | 0.12%   |
| Agricultural                 | \$ 13,722                                | \$ 361  | \$ 1,610  | \$ (107)   | -2.96%  | \$ 0.13925                        | \$ 0.00367   | \$ 0.11978                        | \$ 0.00400   | \$ (0.00012)                                      | -0.09%  |
| Industrial                   | \$ 374,724                               | \$ 17,769   | \$ 24,760   | \$ 387   | 1.56%   | \$ 0.05818                        | \$ 0.00276   | \$ 0.06437                        | \$ 0.00289   | \$ 0.00004  | 0.06%   |
| Departed Load                | \$ 35,623                                | \$ 6,196  | \$ 6,718  | \$ 133   | 1.99%   | \$ 0.00303                        | \$ 0.00303   | \$ 0.00319                        | \$ 0.00007   | \$ 0.00007  | 0.00%   |

Notes:

- 1) Customers who receive electric procurement as well as delivery service from PG&E.
- 2) Customers who purchase electricity from non-PG&E suppliers.
- 3) 2017 total revenue from July 1, 2017 Rate Change AL 5088-E
- 4) EE portion of 2017 revenue based on EE revenue requirement in rates (former PGC and proc EE) from 2017 Annual Electric True-up AL 4902-E-A
- 5) 2018 total revenue from 2018 Annual Electric True-up AL 5231-E
- 6) EE portion of 2018 revenue based on EE revenue requirement in rates (former PGC and proc EE) from 2018 Annual Electric True-up AL 5231-E

Table 2b - Gas Bill Payer Impacts - Current and Proposed Revenues and Rates, Total and Energy Efficiency, by Customer Class

| Customer Classes                                     | 2017 Total Gas Annual Revenue \$000 | 2017 Energy Efficiency Portion of Total Gas Annual Revenue \$000 | 2018 Energy Efficiency Portion of Total Gas Annual Revenue \$000 (3) | 2019 Proposed Energy Efficiency Gas Annual Revenue Change \$000 (4)(5)(6) | 2019 Proposed Percentage Change In Gas Revenue and Rates (4)(5)(6) | 2017 Gas Average Rate \$/therm | 2017 Energy Efficiency Portion of Gas Average Rate \$/therm | 2018 Gas Average Rate \$/therm | 2018 Energy Efficiency Portion of Gas Average Rate \$/therm | 2019 Proposed Gas Average Rate Change \$/therm (6) | 2019 Proposed Percentage Change In Gas Revenue and Rates (6) |
|--|-------------------------------------|--|--|---|--|--------------------------------|---|--------------------------------|---|--|--|
| <b>Core Retail Bundle<sup>1</sup></b>                |                                     |  |  |   |  |                                |   |                                |   |  |  |
| Residential - Non-CARE                               | \$ 2,375,481                        | \$ 47,933  | \$ 42,142  | \$ (95)   | -0.004%  | \$ 1.5936                      | \$ 0.0358   | \$ 1.5381                      | \$ 0.0310   | \$ (0.0001)  | -0.005%  |
| Residential - CARE                                   | \$ 599,661                          | \$ 12,100  | \$ 10,612  | \$ (24)   | -0.004%  | \$ 1.2637                      | \$ 0.0356   | \$ 1.2216                      | \$ 0.0310   | \$ (0.0001)  | -0.006%  |
| Commercial - Small                                   | \$ 598,003                          | \$ 4,565   | \$ 4,012   | \$ (9)  | -0.002%  | \$ 1.1315                      | \$ 0.0086   | \$ 1.6807                      | \$ 0.0074   | \$ (0.0001)  | -0.002%  |
| Commercial - Large                                   | \$ 37,567                           | \$ 1,625   | \$ 1,428   | \$ (3)  | -0.009%  | \$ 0.8795                      | \$ 0.0365   | \$ 0.8282                      | \$ 0.0323   | \$ (0.0001)  | -0.009%  |
| <b>Core Retail - Transportation Only<sup>2</sup></b> |                                     |  |  |   |  |                                |   |                                |   |  |  |
| Residential - Non-CARE                               | \$ 39,045                           | \$ 788   | \$ 693   | \$ (2)  | -0.004%  | \$ 1.1681                      | \$ 0.0356   | \$ 1.2195                      | \$ 0.0310   | \$ (0.0001)  | -0.006%  |
| Residential - CARE                                   | \$ 9,856                            | \$ 199   | \$ 174   | \$ (9)  | -0.004%  | \$ 0.8381                      | \$ 0.0358   | \$ 0.8030                      | \$ 0.0310   | \$ (0.0001)  | -0.006%  |
| Commercial - Small                                   | \$ 215,383                          | \$ 1,644   | \$ 1,445   | \$ (3)  | -0.002%  | \$ 0.7230                      | \$ 0.0086   | \$ 0.7384                      | \$ 0.0074   | \$ (0.0000)  | -0.002%  |
| Commercial - Large                                   | \$ 18,708                           | \$ 809   | \$ 711   | \$ (2)  | -0.009%  | \$ 0.5008                      | \$ 0.0365   | \$ 0.5547                      | \$ 0.0323   | \$ (0.0001)  | -0.013%  |
| <b>Noncore - Transportation Only</b>                 |                                     |  |  |   |  |                                |   |                                |   |  |  |
| Industrial - Distribution                            | \$ 75,471                           | \$ 2,081   | \$ 1,829   | \$ (4)  | -0.005%  | \$ 0.2978                      | \$ 0.0086   | \$ 0.3513                      | \$ 0.0074   | \$ (0.0000)  | -0.005%  |
| Commercial/Industrial                                | \$ 236,215                          | \$ 5,628   | \$ 4,945   | \$ (11)   | -0.004%  | \$ 0.1304                      | \$ 0.0031   | \$ 0.1990                      | \$ 0.0030   | \$ (0.0000)  | -0.003%  |

Table 3 - Budget and Cost Recovery by Funding Source

|   | 2019                  |
|---|-----------------------|
| 2019 EE Portfolio Budget [1]                                  | \$ 408,757,913        |
| Unspent/Uncommitted EM&V Carryover Funds from pre-2018        | \$ -                  |
| Unspent/Uncommitted Program Carryover Funds from pre-2018 [2] | \$ 104,563,269        |
| <b>Total Funding Request for 2019 EE Portfolio</b>            | <b>\$ 304,194,644</b> |

Budget by Funding Source

| 2019 Authorized (Before Carryover) [1] | 2019 Budget           | Allocation  |
|--|-----------------------|-------------|
| Electric Procurement EE Funds          | \$ 306,568,435        | 75%         |
| Gas PPP Surcharge Funds                | \$ 102,189,478        | 25%         |
| <b>Total Funds</b>                     | <b>\$ 408,757,913</b> | <b>100%</b> |

Revenue Requirement for Cost Recovery by Funding Source

| 2019 Authorized Funding in Rates (including pre-2018 carryover) | 2019 Revenue Requirement | Allocation after Carryover |
|---|--------------------------|----------------------------|
| Electric Procurement EE Funds                                   | \$ 228,145,983           | 75%                        |
| Gas PPP Surcharge Funds   | \$ 76,048,661            | 25%                        |
| <b>Total Funds</b>  | <b>\$ 304,194,644</b>    | <b>100%</b>                |

Unspent/Uncommitted Carryover Funds (in positive \$ amounts)

| Total Unspent/Uncommitted Funds | Electric PG&E | Electric Procurement | Total Electric       | Gas                  | Total                 |
|---------------------------------|---------------|----------------------|----------------------|----------------------|-----------------------|
| 2017                            | \$ -          | \$ 77,084,510        | \$ 77,084,510        | \$ 15,240,370        | \$ 92,324,880         |
| 2016                            | \$ -          | \$ 9,383,431         | \$ 9,383,431         | \$ 2,265,843         | \$ 11,649,274         |
| 2013-2015                       | \$ -          | \$ 132,173           | \$ 132,173           | \$ 201,603           | \$ 333,775            |
| Pre-2013                        | \$ 268        | \$ 209,170           | \$ 209,438           | \$ 45,902            | \$ 255,340            |
| <b>Total Pre-2018</b>           | <b>\$ 268</b> | <b>\$ 86,809,283</b> | <b>\$ 86,809,551</b> | <b>\$ 17,753,717</b> | <b>\$ 104,563,269</b> |

| EM&V Unspent/Uncommitted Funds | Electric PG&E | Electric Procurement | Total Electric | Gas         | Total       |
|--------------------------------|---------------|----------------------|----------------|-------------|-------------|
| 2017                           | \$ -          | \$ -                 | \$ -           | \$ -        | \$ -        |
| 2016                           | \$ -          | \$ -                 | \$ -           | \$ -        | \$ -        |
| 2013-2015                      | \$ -          | \$ -                 | \$ -           | \$ -        | \$ -        |
| Pre-2013                       | \$ -          | \$ -                 | \$ -           | \$ -        | \$ -        |
| <b>Total Pre-2018</b>          | <b>\$ -</b>   | <b>\$ -</b>          | <b>\$ -</b>    | <b>\$ -</b> | <b>\$ -</b> |

| Program Unspent/Uncommitted Funds | Electric PG&E | Electric Procurement | Total Electric       | Gas                  | Total                 |
|-----------------------------------|---------------|----------------------|----------------------|----------------------|-----------------------|
| 2017                              | \$ -          | \$ 77,084,510        | \$ 77,084,510        | \$ 15,240,370        | \$ 92,324,880         |
| 2016                              | \$ -          | \$ 9,383,431         | \$ 9,383,431         | \$ 2,265,843         | \$ 11,649,274         |
| 2013-2015                         | \$ -          | \$ 132,173           | \$ 132,173           | \$ 201,603           | \$ 333,775            |
| Pre-2013                          | \$ 268        | \$ 209,170           | \$ 209,438           | \$ 45,902            | \$ 255,340            |
| <b>Total Pre-2018</b>             | <b>\$ 268</b> | <b>\$ 86,809,283</b> | <b>\$ 86,809,551</b> | <b>\$ 17,753,717</b> | <b>\$ 104,563,269</b> |

[1] Represents Authorized EE Funding in 2019 Rates.

[2] The Pre-2018 Unspent/Uncommitted Program Carryover Funds excludes \$499,483 of MCE electric funds requested to be refunded to ratepayers from the 2019 program cycle.

Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                              | 2013-2015 Budget, Spent, Unspent and Carryover |   |                             |  |   |  |  |  |  | 2016 Budget, Spent, Unspent and Carryover |                 |   |                                       |
|------------------------|---|--|---|-----------------------------|--|---|--|--|--|--|---|-----------------|---|---------------------------------------|
|                        |   | 2015 Authorized Budget                         | 2015 Total Budget with Commitments & Fundshifts [1] | 2015 Total Budget Spent [2] | Requested Carry Over of Pre-2013 Unspent Funds to 2016 [3] | 2013-2015 Unspent/Uncommitted Funds Refunded or Transferred | 2013-2015 Commitments as of 12/31/15 [5] | 2013-2015 Unspent/Committed Funds, Carryover to 2017 [6] | 2013-2015 Cycle Expenditures Spent in 2016 | Pre-2016 Unspent/Uncommitted Funds Available for 2017 offset [E-F+H-J-K] [7] | 2016 Authorized Budget                    | 2016 Fundshifts | 2016 Total Budget with Commitments & Fundshifts (G+J+M+N) | 2016 Cycle Expenditures Spent in 2016 |
| <b>PGE2100</b>         | <b>Residential Energy Efficiency Programs Total</b>               | \$ 61,794,379                                  | \$ 83,984,802                                       | \$ 83,984,802               | \$ 4,475,456   | \$ -  | \$ 12,029,803                            | \$ -   | \$ (122,295)                               | \$ 122,295   | \$ 61,794,379                             | \$ 11,336,407   | \$ 77,606,242   | \$ 77,606,242                         |
| PGE21001               | Residential Energy Advisor  | \$ 13,531,293                                  | \$ 23,635,570                                       | \$ 23,635,570               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 0   | \$ 13,531,293                             | \$ 2,500,000    | \$ 16,031,293   | \$ 17,534,364                         |
| PGE21002               | Plug Load and Appliances  | \$ 18,990,738                                  | \$ 18,858,757                                       | \$ 18,858,757               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 0   | \$ 18,990,738                             | \$ -            | \$ 18,990,738   | \$ 13,641,352                         |
| PGE21003               | Multifamily Energy Efficiency                                     | \$ 1,839,507                                   | \$ 1,522,581  | \$ 1,522,581                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 0   | \$ 1,839,507                              | \$ -            | \$ 1,839,507  | \$ 675,488                            |
| PGE21004               | Energy Upgrade California   | \$ 13,998,809                                  | \$ 20,967,951                                       | \$ 20,967,951               | \$ 322,330   | \$ -  | \$ 322,330                               | \$ -   | \$ (86,905)                                | \$ 86,905  | \$ 13,998,809                             | \$ 7,936,407    | \$ 22,257,546   | \$ 24,947,402                         |
| PGE21005               | Residential New Construction                                      | \$ 3,958,299                                   | \$ 5,830,541  | \$ 5,830,541                | \$ 4,000,000   | \$ -  | \$ 11,554,347                            | \$ -   | \$ -                                       | \$ -   | \$ 3,958,299                              | \$ 500,000      | \$ 8,458,299  | \$ 7,179,186                          |
| PGE21006               | Residential HVAC  | \$ 9,475,734                                   | \$ 13,169,401                                       | \$ 13,169,401               | \$ 153,126   | \$ -  | \$ 153,126                               | \$ -   | \$ (35,390)                                | \$ 35,390  | \$ 9,475,734                              | \$ 400,000      | \$ 10,028,860   | \$ 13,628,451                         |
| PGE21010               | Pay for Performance Pilot   | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| <b>PGE2101</b>         | <b>Commercial Programs Total</b>                                  | \$ 79,040,928                                  | \$ 84,797,377                                       | \$ 84,797,377               | \$ 7,082,579   | \$ -  | \$ 25,608,086                            | \$ -   | \$ -                                       | \$ -   | \$ 79,040,928                             | \$ 20,850,000   | \$ 106,973,507  | \$ 99,034,373                         |
| PGE21011               | Commercial Calculated Incentives                                  | \$ 25,132,514                                  | \$ 24,103,034                                       | \$ 24,440,383               | \$ 6,682,579   | \$ -  | \$ 11,732,639                            | \$ -   | \$ -                                       | \$ (337,349)   | \$ 25,132,514                             | \$ -            | \$ 31,815,093   | \$ 19,123,362                         |
| PGE21025               | Savings by Design (SBD)   | \$ 10,237,119                                  | \$ 10,382,091                                       | \$ 10,533,625               | \$ 400,000   | \$ -  | \$ 13,821,821                            | \$ -   | \$ -                                       | \$ (151,535)   | \$ 10,237,119                             | \$ -            | \$ 10,637,119   | \$ 6,734,513                          |
| PGE21012               | Commercial Deemed Incentives                                      | \$ 18,922,890                                  | \$ 23,144,357                                       | \$ 23,786,931               | \$ -   | \$ -  | \$ 3,588                                 | \$ -   | \$ -                                       | \$ (642,575)   | \$ 18,922,890                             | \$ 20,850,000   | \$ 39,772,890   | \$ 54,790,353                         |
| PGE21013               | Commercial Continuous Energy Improvement                          | \$ 491,754                                     | \$ 785,604  | \$ 1,126,045                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (340,441)   | \$ 491,754                                | \$ -            | \$ 988,777  | \$ 988,777                            |
| PGE21014               | Commercial Energy Advisor   | \$ 5,979,427                                   | \$ 5,508,948  | \$ 6,107,525                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (598,577)   | \$ 5,979,427                              | \$ -            | \$ 5,979,427  | \$ 4,459,100                          |
| PGE21015               | Commercial HVAC   | \$ 18,277,223                                  | \$ 20,873,344                                       | \$ 18,802,867               | \$ -   | \$ -  | \$ 50,038                                | \$ -   | \$ -                                       | \$ 2,070,476   | \$ 18,277,223                             | \$ -            | \$ 18,277,223   | \$ 12,938,268                         |
| <b>PGE2103</b>         | <b>Agricultural Programs Total</b>                                | \$ 18,823,008                                  | \$ 18,553,570                                       | \$ 18,553,570               | \$ -   | \$ -  | \$ 2,873,652                             | \$ -   | \$ -                                       | \$ 0   | \$ 18,823,008                             | \$ -            | \$ 18,823,008   | \$ 18,262,460                         |
| PGE21031               | Agricultural Calculated Incentives                                | \$ 10,240,375                                  | \$ 9,443,466  | \$ 8,304,778                | \$ -   | \$ -  | \$ 2,873,652                             | \$ -   | \$ -                                       | \$ 1,138,687   | \$ 10,240,375                             | \$ -            | \$ 10,240,375   | \$ 5,747,440                          |
| PGE21032               | Agricultural Deemed Incentives                                    | \$ 3,815,997                                   | \$ 2,629,376  | \$ 4,804,403                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (2,175,027)   | \$ 3,815,997                              | \$ -            | \$ 3,815,997  | \$ 8,068,249                          |
| PGE21033               | Agricultural Continuous Energy Improvement                        | \$ 506,988                                     | \$ 1,034,505  | \$ 164,253                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 870,252   | \$ 506,988                                | \$ -            | \$ 506,988  | \$ 197,629                            |
| PGE21034               | Agricultural Energy Advisor                                       | \$ 4,259,648                                   | \$ 5,446,223  | \$ 5,280,136                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 166,087   | \$ 4,259,648                              | \$ -            | \$ 4,259,648  | \$ 4,249,142                          |
| <b>PGE2102</b>         | <b>Industrial Programs Total</b>                                  | \$ 11,938,780                                  | \$ 14,896,434                                       | \$ 12,571,310               | \$ 1,000,000   | \$ -  | \$ 15,646,040                            | \$ -   | \$ -                                       | \$ 2,325,124   | \$ 11,938,780                             | \$ -            | \$ 12,938,780   | \$ 11,052,656                         |
| PGE21021               | Industrial Calculated Incentives                                  | \$ 8,712,285                                   | \$ 10,052,601                                       | \$ 9,520,724                | \$ 1,000,000   | \$ -  | \$ 15,646,040                            | \$ -   | \$ -                                       | \$ 531,877   | \$ 8,712,285                              | \$ -            | \$ 9,712,285  | \$ 6,422,285                          |
| PGE21022               | Industrial Deemed Incentives                                      | \$ 794,316                                     | \$ (770)  | \$ 1,275,032                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (1,275,802)   | \$ 794,316                                | \$ -            | \$ 794,316  | \$ 2,982,574                          |
| PGE21023               | Industrial Continuous Energy Improvement                          | \$ 226,407                                     | \$ 806,463  | \$ 498,997                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 307,466   | \$ 226,407                                | \$ -            | \$ 226,407  | \$ 393,031                            |
| PGE21024               | Industrial Energy Advisor   | \$ 2,205,773                                   | \$ 4,038,139  | \$ 1,276,557                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,761,583   | \$ 2,205,773                              | \$ -            | \$ 2,205,773  | \$ 1,254,766                          |
| PGE21030               | Industrial Strategic Energy Management                            | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| <b>PGE2104</b>         | <b>Lighting Programs Total</b>                                    | \$ 13,551,559                                  | \$ 13,998,772                                       | \$ 11,882,102               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,116,670   | \$ 13,551,559                             | \$ (700,000)    | \$ 12,851,559   | \$ 12,732,856                         |
| PGE21041               | Primary Lighting  | \$ 11,188,130                                  | \$ 12,981,250                                       | \$ 10,718,482               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,262,768   | \$ 11,188,130                             | \$ -            | \$ 11,188,130   | \$ 11,879,081                         |
| PGE21042               | Lighting Innovation   | \$ 1,692,692                                   | \$ (650,415)  | \$ 912,958                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (1,563,373)   | \$ 1,692,692                              | \$ (700,000)    | \$ 992,692  | \$ 669,673                            |
| PGE21043               | Lighting Market Transformation                                    | \$ 670,738                                     | \$ 1,667,938  | \$ 250,663                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,417,275   | \$ 670,738                                | \$ -            | \$ 670,738  | \$ 184,102                            |
| <b>PGE2105</b>         | <b>Codes &amp; Standards Programs Total</b>                       | \$ 15,335,248                                  | \$ 15,386,387                                       | \$ 12,781,513               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,604,873   | \$ 15,335,248                             | \$ 279,921      | \$ 15,615,169   | \$ 15,615,169                         |
| PGE21051               | Building Codes Advocacy   | \$ 4,482,917                                   | \$ 8,202,476  | \$ 3,296,640                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 4,905,837   | \$ 4,482,917                              | \$ -            | \$ 4,482,917  | \$ 4,087,284                          |
| PGE21052               | Appliance Standards Advocacy                                      | \$ 4,407,361                                   | \$ 3,298,213  | \$ 5,129,082                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (1,830,869)   | \$ 4,407,361                              | \$ 279,921      | \$ 4,687,282  | \$ 5,650,393                          |
| PGE21053               | Compliance Improvement  | \$ 3,870,071                                   | \$ 952,088  | \$ 2,776,489                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (1,824,401)   | \$ 3,870,071                              | \$ -            | \$ 3,870,071  | \$ 4,182,764                          |
| PGE21054               | Reach Codes   | \$ 1,429,957                                   | \$ 1,740,210  | \$ 669,053                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,071,157   | \$ 1,429,957                              | \$ -            | \$ 1,429,957  | \$ 597,935                            |
| PGE21055               | Planning and Coordination   | \$ 1,144,942                                   | \$ 1,193,401  | \$ 910,251                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 283,150   | \$ 1,144,942                              | \$ -            | \$ 1,144,942  | \$ 531,663                            |
| PGE21056               | Code Readiness  | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ 565,130                            |
| PGE21057               | National Codes & Standards Advocacy                               | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| <b>PGE2106</b>         | <b>Emerging Technologies Programs Total</b>                       | \$ 6,292,077                                   | \$ 11,281,370                                       | \$ 7,997,027                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 3,284,343   | \$ 6,292,077                              | \$ -            | \$ 6,292,077  | \$ 5,821,061                          |
| PGE21061               | Technology Development Support                                    | \$ 452,119                                     | \$ 391,364  | \$ 1,220,896                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (829,532)   | \$ 452,119                                | \$ -            | \$ 452,119  | \$ 747,678                            |
| PGE21062               | Technology Assessments  | \$ 3,073,632                                   | \$ 4,783,957  | \$ 3,214,618                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,569,339   | \$ 3,073,632                              | \$ -            | \$ 3,073,632  | \$ 1,815,758                          |
| PGE21063               | Technology Introduction Support                                   | \$ 2,766,325                                   | \$ 6,106,050  | \$ 3,561,513                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,544,536   | \$ 2,766,325                              | \$ -            | \$ 2,766,325  | \$ 3,257,624                          |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Programs Total</b>          | \$ 12,561,342                                  | \$ 13,706,885                                       | \$ 10,853,110               | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,853,775   | \$ 12,561,342                             | \$ (1,666,431)  | \$ 10,894,911   | \$ 10,166,215                         |
| PGE21071               | Integrated Energy Education and Training                          | \$ 9,721,801                                   | \$ 10,846,380                                       | \$ 7,934,272                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 2,912,108   | \$ 9,721,801                              | \$ (823,631)    | \$ 8,898,170  | \$ 7,896,227                          |
| PGE21072               | Connections   | \$ 2,150,604                                   | \$ 2,250,472  | \$ 2,094,267                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 156,205   | \$ 2,150,604                              | \$ (808,292)    | \$ 1,342,312  | \$ 1,755,612                          |
| PGE21073               | Strategic Planning  | \$ 688,937                                     | \$ 610,033  | \$ 824,571                  | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (214,539)   | \$ 688,937                                | \$ (34,508)     | \$ 654,429  | \$ 514,375                            |
| PGE21076               | Career and Workforce Readiness                                    | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| <b>PGE2108</b>         | <b>Statewide DSM Coordination &amp; Integration Program Total</b> | \$ 714,617                                     | \$ 1,105,405  | \$ (16,299)                 | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,121,704   | \$ 714,617                                | \$ -            | \$ 714,617  | \$ 450,154                            |
| PGE21081               | Statewide DSM Coordination & Integration                          | \$ 714,617                                     | \$ 1,105,405  | \$ (16,299)                 | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,121,704   | \$ 714,617                                | \$ -            | \$ 714,617  | \$ 450,154                            |
| <b>PGE2109</b>         | <b>Financing Programs Total</b>                                   | \$ 5,568,714                                   | \$ 37,954,871                                       | \$ 8,205,515                | \$ -   | \$ (14,048,074)   | \$ -                                     | \$ 8,396,816   | \$ 3,254,387                               | \$ 4,050,079   | \$ 5,568,714                              | \$ (810,824)    | \$ 13,154,706   | \$ 3,957,816                          |
| PGE21091               | On-Bill Financing (excludes Loan Pool)                            | \$ 3,537,010                                   | \$ 3,913,046  | \$ 4,010,097                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (97,051)  | \$ 3,537,010                              | \$ -            | \$ 3,537,010  | \$ 3,115,051                          |
| PGE21092               | Third-Party Financing   | \$ 2,031,703                                   | \$ 5,538,183  | \$ 1,391,053                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 4,147,130   | \$ 2,031,703                              | \$ (810,824)    | \$ 1,220,879  | \$ 842,764                            |
| PGE21093               | New Financing Offerings [9]                                       | \$ -   | \$ 28,503,642                                       | \$ 2,804,365                | \$ -   | \$ (14,048,074)   | \$ -                                     | \$ 8,396,816   | \$ 3,254,387                               | \$ -   | \$ -                                      | \$ -            | \$ 8,396,816  | \$ -                                  |
| PGE210911              | On Bill Financing Alternative Pathway                             | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| <b>PGE2100</b>         | <b>Third-Party Programs (Competitively Bid) Total</b>             | \$ 90,906,191                                  | \$ 99,373,101                                       | \$ 81,475,468               | \$ -   | \$ -  | \$ 30,322,790                            | \$ -   | \$ (105,704)                               | \$ 18,003,336  | \$ 90,906,191                             | \$ (16,092,119) | \$ 74,814,071   | \$ 58,186,155                         |
| <b>PGE2100</b>         | <b>Residential Third Party Programs SubTotal</b>                  | \$ 10,188,301                                  | \$ 9,282,160  | \$ 9,596,381                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ (105,704)                               | \$ (208,517)   | \$ 10,188,301                             | \$ (1,945,117)  | \$ 8,243,184  | \$ 8,768,360                          |
| PGE21007               | California New Homes Multifamily                                  | \$ 3,801,408                                   | \$ 3,754,223  | \$ 2,289,801                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 1,464,422   | \$ 3,801,408                              | \$ (1,945,117)  | \$ 1,856,291  | \$ 1,772,777                          |
| PGE21008               | Enhance Time Delay Relay  | \$ 2,061,601                                   | \$ 1,674,330  | \$ 2,274,467                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (600,137)   | \$ 2,061,601                              | \$ -            | \$ 2,061,601  | \$ 2,676,931                          |
| PGE21009               | Direct Install for Manufactured and Mobile Homes                  | \$ 4,325,292                                   | \$ 3,750,358  | \$ 5,018,394                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ (105,704)                               | \$ (1,162,332)   | \$ 4,325,292                              | \$ -            | \$ 4,325,292  | \$ 3,743,310                          |
| PGE210132              | RSG The Smarter Water Heater                                      | \$ -   | \$ 103,249  | \$ 13,719                   | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ 89,531  | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| PGE210011              | Residential Energy Fitness Program                                | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  | \$ 575,343                            |
| <b>PGE2101</b>         | <b>Commercial Third Party Programs SubTotal</b>                   | \$ 51,591,182                                  | \$ 45,943,193                                       | \$ 36,508,743               | \$ -   | \$ -  | \$ 793,249                               | \$ -   | \$ -                                       | \$ 9,434,450   | \$ 51,591,182                             | \$ (14,147,002) | \$ 37,444,179   | \$ 27,279,393                         |
| PGE210110              | Monitoring-Based Persistence Commissioning                        | \$ -   | \$ (731,790)  | \$ (555)                    | \$ -   | \$ -  | \$ (555)                                 | \$ -   | \$ -                                       | \$ (731,236)   | \$ -                                      | \$ -            | \$ -  | \$ -                                  |
| PGE210111              | Lodging Savers  | \$ 5,044,780                                   | \$ 1,788,544  | \$ 6,031,971                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ (4,243,427)   | \$ 5,044,780                              | \$ -            | \$ 5,044,780  | \$ -                                  |
| PGE210112              | School Energy Efficiency  | \$ 3,421,431                                   | \$ 3,507,961  | \$ 3,653,297                | \$ -   | \$ -  | \$ 457,173                               | \$ -   | \$ -                                       | \$ (145,336)   | \$ 3,421,431                              | \$ -            |   |                                       |

Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                                    | 2013-2015 Budget, Spent, Unspent and Carryover |   |                             |  |   |  |  |  | 2016 Budget, Spent, Unspent and Carryover                                    |                        |                      |   |
|------------------------|---|--|---|-----------------------------|--|---|--|--|--|--|------------------------|----------------------|---|
|                        |   | 2015 Authorized Budget                         | 2015 Total Budget with Commitments & Fundshifts [1] | 2015 Total Budget Spent [2] | Requested Carry Over of Pre-2013 Unspent Funds to 2016 [3] | 2013-2015 Unspent/Uncommitted Funds Refunded or Transferred | 2013-2015 Commitments as of 12/31/15 [5] | 2013-2015 Unspent/Committed Funds, Carryover to 2017 [6] | 2013-2015 Cycle Expenditures Spent in 2016 | Pre-2016 Unspent/Uncommitted Funds Available for 2017 offset [E-F+H-J-K] [7] | 2016 Authorized Budget | 2016 Fundshifts      | 2016 Total Budget with Commitments & Fundshifts (G+J+M+N) |
| PGE210119              | LED Accelerator   | \$ 2,458,594                                   | \$ (648,152)  | \$ 4,099,974                |  | \$ -  |  |  | \$ (4,748,125)                             | \$ 2,458,594   | \$ -                   | \$ 2,458,594         | \$ 529,771  |
| PGE210120              | Monitoring-Based Commissioning  | \$ -   | \$ 81,414   | \$ 48,111                   |  | \$ -  |  |  | \$ 33,303                                  | \$ -   | \$ -                   | \$ -                 | \$ -  |
| PGE210122              | Casino Green  | \$ 1,564,647                                   | \$ 1,680,451  | \$ 949,805                  |  | \$ -  |  |  | \$ 730,646                                 | \$ 1,564,647   | \$ -                   | \$ 1,564,647         | \$ -  |
| PGE210123              | Healthcare Energy Efficiency Program                                    | \$ 1,189,849                                   | \$ 1,274,107  | \$ 441,363                  |  | \$ 37,567   |  |  | \$ 832,744                                 | \$ 1,189,849   | \$ -                   | \$ 1,189,849         | \$ 935,964  |
| PGE210124              | Ozone Laundry Energy Efficiency   | \$ -   | \$ 714,953  | \$ (2,216)                  |  | \$ -  |  |  | \$ 717,169                                 | \$ -   | \$ -                   | \$ -                 | \$ -  |
| PGE210125              | California Preschool Energy Efficiency Program                          | \$ -   | \$ 833,294  | \$ (2,506)                  |  | \$ -  |  |  | \$ 835,801                                 | \$ -   | \$ -                   | \$ -                 | \$ -  |
| PGE210126              | K-12 Private Schools and Colleges Audit Retro                           | \$ 1,844,726                                   | \$ 1,655,196  | \$ 1,079,552                |  | \$ -  |  |  | \$ 575,644                                 | \$ 1,844,726   | \$ -                   | \$ 1,844,726         | \$ 1,671,226  |
| PGE210127              | Innovative Designs for Energy Efficiency Approaches (IDEAA)             | \$ 11,844,521                                  | \$ 2,744,592  | \$ 25,320                   |  | \$ -  |  |  | \$ 2,719,272                               | \$ 11,844,521  | \$ (1,572,398)         | \$ 10,272,122        | \$ -  |
| PGE210128              | Enovity SMART   | \$ -   | \$ 1,048,790  | \$ 1,644,827                |  | \$ 3,940  |  |  | \$ (596,037)                               | \$ -   | \$ -                   | \$ -                 | \$ 304,130  |
| PGE210129              | Nexant AERCx  | \$ -   | \$ 1,590,139  | \$ 504,317                  |  | \$ -  |  |  | \$ 1,085,822                               | \$ -   | \$ -                   | \$ -                 | \$ 277,389  |
| PGE210130              | CLEARresult AERCx   | \$ -   | \$ 1,112,781  | \$ 681,424                  |  | \$ -  |  |  | \$ 431,356                                 | \$ -   | \$ -                   | \$ -                 | \$ 286,046  |
| PGE210131              | PECI AERCx  | \$ -   | \$ 510,892  | \$ 483,003                  |  | \$ -  |  |  | \$ 27,889                                  | \$ -   | \$ -                   | \$ -                 | \$ (19,156)   |
| PGE210136              | McKinstry Laboratory Fume Hoods   | \$ -   | \$ 510,494  | \$ 603,373                  |  | \$ -  |  |  | \$ (92,879)                                | \$ -   | \$ -                   | \$ -                 | \$ (26,114)   |
| PGE210137              | Waypoint Commercial Outreach  | \$ -   | \$ 313,678  | \$ 864,820                  |  | \$ -  |  |  | \$ (551,142)                               | \$ -   | \$ -                   | \$ -                 | \$ 598,588  |
| PGE210138              | Data Center Air Flow and Temp Optimization                              | \$ -   | \$ 278,436  | \$ 206,590                  |  | \$ -  |  |  | \$ 71,846                                  | \$ -   | \$ -                   | \$ -                 | \$ 251,159  |
| PGE210139              | SEI Energize Schools Program  | \$ -   | \$ (5,322)  | \$ 537,061                  |  | \$ -  |  |  | \$ (542,383)                               | \$ -   | \$ -                   | \$ -                 | \$ 517,681  |
| PGE210140              | Mazzetti Dynamic Gas Scavenging System                                  | \$ -   | \$ 177,533  | \$ 33,092                   |  | \$ -  |  |  | \$ 144,441                                 | \$ -   | \$ -                   | \$ -                 | \$ 97   |
| PGE210141              | Lincus Commercial Mid-Market Program                                    | \$ -   | \$ 333,645  | \$ 835,586                  |  | \$ -  |  |  | \$ (501,941)                               | \$ -   | \$ -                   | \$ -                 | \$ 5,459  |
| PGE210143              | Hospitality Program   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ (2,049,313)         | \$ (2,049,313)       | \$ 9,748,754  |
| PGE21016               | Air Care Plus   | \$ 3,784,067                                   | \$ 6,155,564  | \$ 2,312,688                |  | \$ -  |  |  | \$ 3,842,877                               | \$ 3,784,067   | \$ (3,179,921)         | \$ 604,146           | \$ (356,235)  |
| PGE21017               | Boiler Energy Efficiency Program  | \$ 2,086,213                                   | \$ 1,896,072  | \$ 916,103                  |  | \$ 294,569  |  |  | \$ 979,970                                 | \$ 2,086,213   | \$ -                   | \$ 2,086,213         | \$ 917,469  |
| PGE21018               | EnergySmart Grocer  | \$ 7,456,460                                   | \$ 5,552,209  | \$ 5,896,030                |  | \$ -  |  |  | \$ (343,822)                               | \$ 7,456,460   | \$ -                   | \$ 7,456,460         | \$ 5,966,916  |
| PGE21019               | Enhanced Automation Initiative  | \$ -   | \$ 472,786  | \$ 83,344                   |  | \$ -  |  |  | \$ 389,442                                 | \$ -   | \$ -                   | \$ -                 | \$ 41,905   |
| <b>PGE2103</b>         | <b>Agricultural Third Party Programs SubTotal</b>                       | <b>\$ 8,227,091</b>                            | <b>\$ 10,018,743</b>                                | <b>\$ 11,457,071</b>        | <b>\$ -</b>  | <b>\$ -</b>   | <b>\$ 2,118,541</b>                      | <b>\$ -</b>  | <b>\$ (1,438,328)</b>                      | <b>\$ 8,227,091</b>  | <b>\$ -</b>            | <b>\$ 8,227,091</b>  | <b>\$ 5,886,232</b>                                       |
| PGE210310              | Dairy Industry Resource Advantage Pgm                                   | \$ 1,480,754                                   | \$ (209,110)  | \$ 2,298,717                |  | \$ 747,830  |  |  | \$ (2,507,828)                             | \$ 1,480,754   | \$ -                   | \$ 1,480,754         | \$ -  |
| PGE210311              | Process Wastewater Treatment EM Pgm for Ag Food Processing              | \$ 1,065,359                                   | \$ 963,909  | \$ 752,412                  |  | \$ 496,655  |  |  | \$ 211,497                                 | \$ 1,065,359   | \$ -                   | \$ 1,065,359         | \$ 476,641  |
| PGE210312              | Dairy and Winery Industry Efficiency Solutions                          | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                   | \$ -                 | \$ 3,390,664  |
| PGE210333              | Staples Low Pressure Irrigation DI                                      | \$ -   | \$ 1,155,851  | \$ 1,250,631                |  | \$ -  |  |  | \$ (94,779)                                | \$ -   | \$ -                   | \$ -                 | \$ 63,210   |
| PGE21035               | Dairy Energy Efficiency Program   | \$ 472,638                                     | \$ 562,401  | \$ 467,690                  |  | \$ -  |  |  | \$ 94,710                                  | \$ 472,638   | \$ -                   | \$ 472,638           | \$ 1,157  |
| PGE21036               | Industrial Refrigeration Performance Plus                               | \$ 1,419,916                                   | \$ 2,135,688  | \$ 992,145                  |  | \$ 399,735  |  |  | \$ 1,143,543                               | \$ 1,419,916   | \$ -                   | \$ 1,419,916         | \$ 160,199  |
| PGE21037               | Light Exchange Program  | \$ 1,046,700                                   | \$ 819,308  | \$ 578,448                  |  | \$ -  |  |  | \$ 240,859                                 | \$ 1,046,700   | \$ -                   | \$ 1,046,700         | \$ 751  |
| PGE21038               | Wine Industry Efficiency Solutions                                      | \$ 1,677,221                                   | \$ 2,486,505  | \$ 2,084,509                |  | \$ 474,322  |  |  | \$ 401,996                                 | \$ 1,677,221   | \$ -                   | \$ 1,677,221         | \$ -  |
| PGE21039               | Comprehensive Food Process Audit & Resource Efficiency Pgm              | \$ 1,064,504                                   | \$ 2,104,192  | \$ 3,032,519                |  | \$ -  |  |  | \$ (928,327)                               | \$ 1,064,504   | \$ -                   | \$ 1,064,504         | \$ 1,793,610  |
| <b>PGE2102</b>         | <b>Industrial Third Party Programs SubTotal</b>                         | <b>\$ 20,899,617</b>                           | <b>\$ 34,351,982</b>                                | <b>\$ 23,630,116</b>        | <b>\$ -</b>  | <b>\$ -</b>   | <b>\$ 27,411,000</b>                     | <b>\$ -</b>  | <b>\$ 10,721,867</b>                       | <b>\$ 20,899,617</b>   | <b>\$ -</b>            | <b>\$ 20,899,617</b> | <b>\$ 16,205,955</b>                                      |
| PGE210210              | Industrial Recommissioning Program                                      | \$ 1,372,850                                   | \$ 3,071,471  | \$ 1,335,323                |  | \$ 1,373,897  |  |  | \$ 1,736,148                               | \$ 1,372,850   | \$ -                   | \$ 1,372,850         | \$ 1,350,434  |
| PGE210211              | Light Industrial Energy Efficiency                                      | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                   | \$ -                 | \$ 47,944   |
| PGE210212              | Industrial Compressed Air System Efficiency                             | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                   | \$ -                 | \$ 245,729  |
| PGE210213              | Small Petrochemical Energy Efficiency                                   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                   | \$ -                 | \$ 96,290   |
| PGE21025               | California Wastewater Process Optimization                              | \$ 995,518                                     | \$ 1,238,167  | \$ 595,695                  |  | \$ 253,266  |  |  | \$ 642,472                                 | \$ 995,518   | \$ -                   | \$ 995,518           | \$ 644,407  |
| PGE21026               | Energy Efficiency Services for Oil Production                           | \$ 4,475,267                                   | \$ 6,259,122  | \$ 3,234,535                |  | \$ 2,273,622  |  |  | \$ 3,024,586                               | \$ 4,475,267   | \$ -                   | \$ 4,475,267         | \$ 1,510,663  |
| PGE21027               | Heavy Industry Energy Efficiency Program                                | \$ 11,067,518                                  | \$ 15,001,729                                       | \$ 13,037,517               |  | \$ 14,709,712   |  |  | \$ 1,964,212                               | \$ 11,067,518  | \$ -                   | \$ 11,067,518        | \$ 8,839,023  |
| PGE21028               | Industrial Compressed Air Program                                       | \$ 1,678,196                                   | \$ 1,070,652  | \$ 376,427                  |  | \$ 376,427  |  |  | \$ 201,081                                 | \$ 1,678,196   | \$ -                   | \$ 1,678,196         | \$ 18,634   |
| PGE21029               | Refinery Energy Efficiency Program                                      | \$ 1,310,269                                   | \$ 6,414,950  | \$ 2,090,205                |  | \$ 8,589,844  |  |  | \$ 4,324,745                               | \$ 1,310,269   | \$ -                   | \$ 1,310,269         | \$ 591,228  |
| PGE210135              | Lincus WISE   | \$ -   | \$ 583,483  | \$ 2,828,643                |  | \$ 9,577  |  |  | \$ (2,245,159)                             | \$ -   | \$ -                   | \$ -                 | \$ 2,861,492  |
| PGE210142              | Ameresco Intelligent Energy Efficiency                                  | \$ -   | \$ 712,408  | \$ 131,771                  |  | \$ -  |  |  | \$ 580,638                                 | \$ -   | \$ -                   | \$ -                 | \$ 110  |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Third Party Programs SubTotal</b> | <b>\$ -</b>                                    | <b>\$ (222,977)</b>                                 | <b>\$ 283,158</b>           | <b>\$ -</b>  | <b>\$ -</b>   | <b>\$ -</b>                              | <b>\$ -</b>  | <b>\$ (506,135)</b>                        | <b>\$ -</b>  | <b>\$ -</b>            | <b>\$ -</b>          | <b>\$ 46,214</b>  |
| PGE21074               | Builder Energy Code Training  | \$ -   | \$ (81,650)   | \$ 11,523                   |  | \$ -  |  |  | \$ (93,173)                                | \$ -   | \$ -                   | \$ -                 | \$ -  |
| PGE21075               | Green Building Technical Support Services                               | \$ -   | \$ (205,549)  | \$ 4,699                    |  | \$ -  |  |  | \$ (210,248)                               | \$ -   | \$ -                   | \$ -                 | \$ -  |
| PGE210134              | Bridges to Energy Sector Opportunities                                  | \$ -   | \$ 64,221   | \$ 266,936                  |  | \$ -  |  |  | \$ (202,714)                               | \$ -   | \$ -                   | \$ -                 | \$ 46,214   |
| <b>PGE2110</b>         | <b>Government Partnership Programs Total</b>                            | <b>\$ 72,321,914</b>                           | <b>\$ 78,908,455</b>                                | <b>\$ 68,224,688</b>        | <b>\$ -</b>  | <b>\$ -</b>   | <b>\$ 9,189,905</b>                      | <b>\$ -</b>  | <b>\$ 10,683,768</b>                       | <b>\$ 72,321,914</b>   | <b>\$ (3,296,953)</b>  | <b>\$ 69,024,961</b> | <b>\$ 63,692,329</b>                                      |
| PGE2110011             | California Community Colleges   | \$ 3,495,392                                   | \$ 2,959,452  | \$ 2,450,565                |  | \$ 2,127,113  |  |  | \$ 508,887                                 | \$ 3,495,392   | \$ -                   | \$ 3,495,392         | \$ 2,936,598  |
| PGE2110012             | University of California/California State University                    | \$ 11,801,373                                  | \$ 11,156,606                                       | \$ 5,666,056                |  | \$ 5,998,323  |  |  | \$ 5,490,550                               | \$ 11,801,373  | \$ (3,296,953)         | \$ 8,504,419         | \$ 4,160,265  |
| PGE2110013             | State of California   | \$ 1,423,968                                   | \$ 4,447,501  | \$ 446,349                  |  | \$ 365,262  |  |  | \$ 4,001,152                               | \$ 1,423,968   | \$ -                   | \$ 1,423,968         | \$ 597,810  |
| PGE2110014             | Department of Corrections and Rehabilitation                            | \$ 3,199,909                                   | \$ 4,309,041  | \$ 357,993                  |  | \$ 510,033  |  |  | \$ 3,951,048                               | \$ 3,199,909   | \$ -                   | \$ 3,199,909         | \$ 1,395,816  |
| PGE2110051             | Local Government Energy Action Resources (LGEAR)                        | \$ 5,500,535                                   | \$ 5,079,566  | \$ 10,810,840               |  | \$ -  |  |  | \$ (5,731,275)                             | \$ 5,500,535   | \$ -                   | \$ 5,500,535         | \$ 8,894,255  |
| PGE2110052             | Strategic Energy Resources  | \$ 2,764,003                                   | \$ (6,527,308)                                      | \$ 7,508,767                |  | \$ -  |  |  | \$ (14,036,074)                            | \$ 2,764,003   | \$ -                   | \$ 2,764,003         | \$ 7,633,159  |
| PGE211007              | Association of Monterey Bay Area Governments (AMBAG)                    | \$ 3,581,301                                   | \$ 3,173,251  | \$ 4,213,849                |  | \$ 103,697  |  |  | \$ (1,040,598)                             | \$ 3,581,301   | \$ -                   | \$ 3,581,301         | \$ 3,472,920  |
| PGE211009              | East Bay  | \$ 9,262,008                                   | \$ 11,273,322                                       | \$ 6,720,458                |  | \$ -  |  |  | \$ 4,552,865                               | \$ 9,262,008   | \$ -                   | \$ 9,262,008         | \$ 6,597,937  |
| PGE211010              | Fresno  | \$ 3,846,492                                   | \$ 7,730,350  | \$ 3,130,833                |  | \$ -  |  |  | \$ 4,599,517                               | \$ 3,846,492   | \$ -                   | \$ 3,846,492         | \$ 2,698,158  |
| PGE211011              | Kern  | \$ 3,194,412                                   | \$ 4,669,107  | \$ 2,811,185                |  | \$ 8,692  |  |  | \$ 1,857,922                               | \$ 3,194,412   | \$ -                   | \$ 3,194,412         | \$ 2,497,282  |
| PGE211012              | Madera  | \$ 445,314                                     | \$ 851,041  | \$ 436,007                  |  | \$ -  |  |  | \$ 415,034                                 | \$ 445,314   | \$ -                   | \$ 445,314           | \$ 314,528  |
| PGE211013              | Marin County  | \$ 1,334,743                                   | \$ 1,784,706  | \$ 1,179,302                |  | \$ 11,000   |  |  | \$ 605,404                                 | \$ 1,334,743   | \$ -                   | \$ 1,334,743         | \$ 1,221,459  |
| PGE211014              | Mendocino/Lake County   | \$ 322,506                                     | \$ 295,006  | \$ 626,591                  |  | \$ -  |  |  | \$ (331,586)                               | \$ 322,506   | \$ -                   | \$ 322,506           | \$ 666,557  |
| PGE211015              | Napa County   | \$ 549,632                                     | \$ 376,214  | \$ 519,326                  |  | \$ -  |  |  | \$ (143,112)                               | \$ 549,632   | \$ -                   | \$ 549,632           | \$ 439,889  |
| PGE211016              | Redwood Coast   | \$ 1,556,910                                   | \$ 2,057,613  | \$ 1,474,416                |  | \$ -  |  |  | \$ 583,197                                 | \$ 1,556,910   | \$ -                   | \$ 1,556,910         | \$ 1,332,988  |
| PGE211018              | San Luis Obispo County  | \$ 936,840                                     | \$ 279,466  | \$ 878,220                  |  | \$ -  |  |  | \$ (598,754)                               | \$ 936,840   | \$ -                   | \$ 936,840           | \$ 1,169,461  |
| PGE211019              | San Mateo County  | \$ 1,744,567                                   | \$ 950,687  | \$ 2,625,108                |  | \$ 52,748   |  |  | \$ (1,674,422)                             | \$ 1,744,567   | \$ -                   | \$ 1,744,567         | \$ 1,999,253  |

Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name   | 2013-2015 Budget, Spent, Unspent and Carryover |   |                             |  |   |  |  |  |  | 2016 Budget, Spent, Unspent and Carryover |                 |   |                                       |
|------------------------|--|--|---|-----------------------------|--|---|--|--|--|--|---|-----------------|---|---------------------------------------|
|                        |  | 2015 Authorized Budget                         | 2015 Total Budget with Commitments & Fundshifts [1] | 2015 Total Budget Spent [2] | Requested Carry Over of Pre-2013 Unspent Funds to 2016 [3] | 2013-2015 Unspent/Uncommitted Funds Refunded or Transferred | 2013-2015 Commitments as of 12/31/15 [5] | 2013-2015 Unspent/Committed Funds, Carryover to 2017 [6] | 2013-2015 Cycle Expenditures Spent in 2016 | Pre-2016 Unspent/Uncommitted Funds Available for 2017 offset [E-F+H-J-K] [7] | 2016 Authorized Budget                    | 2016 Fundshifts | 2016 Total Budget with Commitments & Fundshifts (G+J+M+N) | 2016 Cycle Expenditures Spent in 2016 |
| PGE211020              | Santa Barbara  | \$ 1,184,837                                   | \$ 1,368,579  | \$ 966,840                  |  | \$ -  |  |  | \$ 401,739                                 | \$ 1,184,837   | \$ -                                      | \$ 1,184,837    | \$ 852,691  |                                       |
| PGE211021              | Sierra Nevada  | \$ 2,560,460                                   | \$ 2,643,277  | \$ 1,954,601                |  | \$ -  |  |  | \$ 688,676                                 | \$ 2,560,460   | \$ -                                      | \$ 2,560,460    | \$ 2,189,823  |                                       |
| PGE211022              | Sonoma County  | \$ 1,709,718                                   | \$ 2,364,100  | \$ 2,226,417                |  | \$ 9,885  |  |  | \$ 137,683                                 | \$ 1,709,718   | \$ -                                      | \$ 1,709,718    | \$ 1,647,877  |                                       |
| PGE211023              | Silicon Valley   | \$ 4,074,436                                   | \$ 5,306,242  | \$ 4,609,175                |  | \$ 3,151  |  |  | \$ 697,068                                 | \$ 4,074,436   | \$ -                                      | \$ 4,074,436    | \$ 3,934,221  |                                       |
| PGE211024              | San Francisco  | \$ 7,832,558                                   | \$ 12,360,636                                       | \$ 6,611,788                |  | \$ -  |  |  | \$ 5,748,848                               | \$ 7,832,558   | \$ -                                      | \$ 7,832,558    | \$ 7,039,384  |                                       |
| PGE211026              | North Valley   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE211027              | Sutter Buttes  | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE211028              | Yolo   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE211029              | Solano   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE211030              | Northern San Joaquin Valley  | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE211031              | Valley Innovative Energy Watch (VIEW)  | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
|                        | <b>Funds to be returned in rates [4]</b>   | \$ -   | \$ -  | \$ -                        |  | \$ -  |  |  | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
|                        | <b>2013-2015 funds transferred to REN and CCA balancing accounts for 2016 [6]</b>          | \$ -   | \$ -  | \$ -                        |  | \$ (43,024,402)   | \$ -                                     | \$ 4,066,080   | \$ (43,024,402)                            | \$ -   | \$ (4,066,080)                            | \$ -            | \$ -  |                                       |
|                        | <b>Pre-2013 Unspent Funds transferred to 2016 Commercial Deemed Incentives program [3]</b> |  |   |                             | \$ 9,900,000   |   |  |  |  |  | \$ (9,900,000)                            |                 |   |                                       |
|                        | <b>PG&amp;E PROGRAM TOTAL</b>  | \$ 388,848,756                                 | \$ 473,947,429                                      | \$ 401,310,184              | \$ 22,458,035  | \$ (57,072,476)   | \$ 95,670,275                            | \$ 12,462,896  | \$ 3,026,388                               | \$ 75,485  | \$ 388,848,756                            | \$ (4,066,080)  | \$ 419,703,607  | \$ 376,577,485                        |
| <b>EM&amp;V</b>        | <b>EM&amp;V (PA &amp; CPUC Portions) Total</b>   | \$ 17,204,418                                  | \$ 43,427,745                                       | \$ 14,196,403               | \$ 2,261,982   | \$ -  | \$ 29,231,342                            | \$ 18,873,781  | \$ 9,360,310                               | \$ 997,251   | \$ 17,204,418                             | \$ -            | \$ 38,340,181   | \$ 1,531,591                          |
| PGE_EMV                | PG&E EM&V - CPUC   | \$ 12,200,968                                  | \$ 33,361,125                                       | \$ 10,473,870               | \$ 880,380   | \$ -  | \$ 22,887,233                            | \$ 16,149,179  | \$ 6,738,076                               | \$ -   | \$ 12,200,968                             | \$ -            | \$ 29,230,527   | \$ 477,668                            |
| PGE_EMV                | PG&E EM&V - PG&E   | \$ 5,003,450                                   | \$ 10,066,620                                       | \$ 3,722,532                | \$ 1,381,602   | \$ -  | \$ 6,344,110                             | \$ 2,724,603   | \$ 2,622,234                               | \$ 997,251   | \$ 5,003,450                              | \$ -            | \$ 9,109,655  | \$ 1,053,923                          |
| PGE_EMV                | BayREN EM&V - CPUC   | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_EMV                | BayREN EM&V  | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_EMV                | MCE EM&V - CPUC  | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_EMV                | MCE EM&V   | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_EMV                | 3C REN EM&V - CPUC   | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_EMV                | 3C REN EM&V  | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
|                        | <b>PG&amp;E TOTAL with EM&amp;V</b>  | \$ 406,053,174                                 | \$ 517,375,174                                      | \$ 415,506,587              | \$ 24,720,017  | \$ (57,072,476)   | \$ 124,901,618                           | \$ 31,336,678  | \$ 12,386,697                              | \$ 1,072,736   | \$ 406,053,174                            | \$ (4,066,080)  | \$ 458,043,789  | \$ 378,109,077                        |
| PGE_BayREN             | BayREN [10]  | \$ 12,837,000                                  | \$ 18,163,894                                       | \$ 14,403,008               | \$ -   | \$ -  | \$ -                                     | \$ 3,760,885   | \$ -                                       | \$ -   | \$ 12,837,000                             | \$ 3,700,000    | \$ 20,297,885   | \$ 17,379,767                         |
| PGE_MCE                | Marin Clean Energy [10]  | \$ 1,220,267                                   | \$ 1,420,267  | \$ 124,539                  | \$ -   | \$ (1,082,708)  | \$ -                                     | \$ 36,182  | \$ -                                       | \$ (81,441)  | \$ 1,220,267                              | \$ 366,080      | \$ 1,622,529  | \$ 1,428,096                          |
| PGE_3C REN             | 3C REN [10]  | \$ -   | \$ -  | \$ -                        | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
|                        | <b>TOTAL PG&amp;E EE EXPENSE PORTFOLIO</b>   | \$ 420,110,441                                 | \$ 536,959,334                                      | \$ 430,034,134              | \$ 24,720,017  | \$ (58,155,184)   | \$ 124,901,618                           | \$ 35,133,745  | \$ 12,386,697                              | \$ 991,295   | \$ 420,110,441                            | \$ -            | \$ 479,964,203  | \$ 396,916,939                        |
| PGE21091LP             | OBF REVOLVING LOAN POOL  | \$ 10,000,000                                  | \$ 32,528,389                                       | \$ 6,532,126                | \$ -   | \$ -  | \$ -                                     | \$ 15,682,517  | \$ -                                       | \$ -   | \$ 10,000,000                             | \$ -            | \$ 25,682,517   | \$ 2,224,457                          |
|                        | <b>TOTAL PG&amp;E EE PORTFOLIO</b>   | \$ 430,110,441                                 | \$ 569,487,724                                      | \$ 436,566,260              | \$ 24,720,017  | \$ (58,155,184)   | \$ 124,901,618                           | \$ 50,816,262  | \$ 12,386,697                              | \$ 991,295   | \$ 430,110,441                            | \$ -            | \$ 505,646,720  | \$ 399,141,396                        |
|                        | <b>Other EE-Related Budgets</b>  |  |   |                             |  |   |  |  |  |  |   |                 |   |                                       |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program Total                                  | \$ 7,655,061                                   | \$ 6,090,704  | \$ 7,620,318                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ 8,445,775                              | \$ -            | \$ 8,445,775  | \$ 7,689,442                          |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program (Flex Alert) [11]                      | \$ 1,590,250                                   | \$ 909,877  | \$ 1,591,046                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ -                                      | \$ -            | \$ -  |                                       |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program [11]                                   | \$ 6,064,811                                   | \$ 5,180,827  | \$ 6,029,272                | \$ -   | \$ -  | \$ -                                     | \$ -   | \$ -                                       | \$ -   | \$ 8,445,775                              | \$ -            | \$ 8,445,775  | \$ 7,689,442                          |

**PA Name: Pacific Gas and Electric Company**  
**Budget Year: 2019**

**Table 4 – Budget, Spent, Unspent, Carryover Details**

| New/Existing Program # | Main Program Name / Sub-Program Name | 2013-2015 Budget, Spent, Unspent and Carryover |   |                             |  |   |  |  |  |  | 2016 Budget, Spent, Unspent and Carryover |                 |   |                                       |
|------------------------|--------------------------------------|--|---|-----------------------------|--|---|--|--|--|--|---|-----------------|---|---------------------------------------|
|                        |                                      | 2015 Authorized Budget                         | 2015 Total Budget with Commitments & Fundshifts [1] | 2015 Total Budget Spent [2] | Requested Carry Over of Pre-2013 Unspent Funds to 2016 [3] | 2013-2015 Unspent/Uncommitted Funds Refunded or Transferred | 2013-2015 Commitments as of 12/31/15 [5] | 2013-2015 Unspent/Committed Funds, Carryover to 2017 [6] | 2013-2015 Cycle Expenditures Spent in 2016 | Pre-2016 Unspent/Uncommitted Funds Available for 2017 offset [E-F+H-J-K] [7] | 2016 Authorized Budget                    | 2016 Fundshifts | 2016 Total Budget with Commitments & Fundshifts (G+J+M+N) | 2016 Cycle Expenditures Spent in 2016 |

Notes:

- "2015 Total Budget with Commitments & Fundshifts" reflects funds available for 2015, from the authorized 2013-2015 Budget, less the spending in 2013 - 2014 from the 2013 - 2015 Budget.
- "2015 Total Budget Spent" includes spending in 2015 paid from the 2013 - 2015 Budget.
- "Requested Carry Over of pre-2013 Unspent Funds to 2016" identifies the funds PG&E is requesting to carry over to 2016 in supplemental Advice 3752-G-B/4905-E-B, which was approved on November 2, 2016. In addition to the amounts identified at the subprogram level in column G, PG&E was approved authorization to shift \$9.9m of pre-2013 unspent funds into the Commercial Deemed Incentive program 2016 budget.
- The CPUC approved AL 3718-G/4852-E on July 11, 2016, authorizing PG&E to return a total of \$43,024,401.85 in unspent, uncommitted energy efficiency funds from its 2013-2015 program cycle to its customers; PG&E implemented this through a one-time adjustment to its gas and electric EE balancing accounts.
- Commitments as of 12/31/2015 (column I), 12/31/2016 (column R), and 12/31/2017 (column Y) includes incentive Commitments as of the end of the year indicated. Contractual encumbrances are not reflected. BayREN and MCE Carry Over figures represent the level of funds in PG&E's balancing accounts; this may include BayREN expenses or MCE gas expenses not yet invoiced to or accrued by PG&E as of the year indicated; the remainder is the amount potentially available for carry over; these may not match MCE or BayREN submissions.
- 2013-2015 Unspent/Committed Funds, Carryover to 2016" Identifies unspent, committed funds that are carried over into 2016 and augment the 2016 budget, in accordance with D.12-11-015, as follows:  
 New Financing Offerings: In D. 15-06-008, the Commission ordered that PG&E operate for a minimum of 24 months from the point at which each pilot program enrolls its first loan. The Pilots have begun enrolling loans in 2016 indicating that the pilots will run until at least 2018. New financing pilot subprogram funds collected during 2013-2014 period are being carried over to continue to operate during this compliance period.  
 Funds Transferred to REN and CCA balancing accounts: In D.16-05-004 (petition to modify D.14-10-046), effective May 12, 2016, the Commission authorized for Marin Clean Energy (MCE) an annual budget increase of \$366,080 for the duration of the ten-year rolling portfolio cycle unless and until modified by the Commission. The CPUC approved AL 3718-G/4852-E on July 11, 2016, authorizing PG&E to use unspent 2013-2015 unspent funds to fund the increase in MCE's 2016 budget. Advice Letter 3704-G/4826-E, effective April 29, 2016, authorized for BayREN a one-time budget increase of \$3,700,000 transferred from unspent 2013-2015 cycle EE funds to the 2016 cycle.  
 Marin Clean Energy: MCE's 2015 authorized gas budget included \$419,000. The Commission authorized a gas budget of \$219,000 in D.14-10-046 and augmented the gas budget by \$200,000 per PG&E Advice 3642-G/4720-E, filed 10/15/2015, approved 10/28/2015. After \$382,818 of gas payments from PG&E to MCE, \$36,182 is available for carryover to 2016.
- "Pre-2016 unspent/uncommitted funds available for 2017 offset" identifies 2013–2015 cycle unspent funds at the program level. The balancing account transfer for \$43 million of funds refunded to customers based on Advice Letter 3718-G/4852-E is identified on Row 154. Unspent funds from 2009 and 2010–2012 are represented in Column G. In 2017 PG&E recorded a one-time electric EE balancing account adjustment of \$230,474 crediting customer rates for unspent 2015-2016 Marin Clean Energy Electric funds. In the 2018 ABAL, It had been pointed out that of the \$230,474, a refund should have occurred in the amount of \$311,915 from the 2016 cycle, while an increase of \$81,441 should have been applied to the 2013-2015 cycle.
- "2019 Proposed Budget" reflects the budget request for 2019, which differs from the collections requested through this advice letter of approximately \$408.8 million.
- Advice Letter 3589-G-C/4624-E-C, approved June 29, 2015, effective June 25, 2015 established the Energy Efficiency Financing Balancing Account (EEFBA), and the Credit Enhancement Balance Account (CEBA) and the On-Bill Financing Balancing Account (OBFBA) subaccounts. The \$14 million referenced in cell H57 was transferred to the CEBA subaccount.
- BayREN, MCE and 3C-REN figures generally represent the level of funds in PG&E's balancing accounts and may not match MCE or BayREN submissions.
- Statewide ME&O budgets for 2017 through 2019 were approved in Advice Letter 3783-G/4963-E on January 23, 2017, effective November 28, 2016. The portion of SW ME&O allocated to EE is reflected in PG&E's cost effectiveness calculations.
- The "2018 Authorized Budget" in Table 4 represents PG&E's 2018 CEDARS filing budget at the subprogram level detail, and BayREN and MCE's approved budgets per the Business Plan Decision D.18-05-041. This budget is lower than PG&E's 2018

Table 4 – Budget, Spent, Unspent, Carryover Details

|                        |   | d Carryover   |                                     |  | 2017 Budget, Fundshifts and Spending to Date |                 |                   |                                       |   |                                     |  | 2018 Budget, Fundshifts and Spending to Date |                 |                   |
|------------------------|---|---|-------------------------------------|--|--|-----------------|-------------------|---------------------------------------|---|-------------------------------------|--|--|-----------------|-------------------|
| New/Existing Program # | Main Program Name / Sub-Program Name                              | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2016 Commitments as of 12/31/16 [5] | 2016 Unspent/Uncommitted Funds Available for 2018 offset | 2017 Authorized Budget                       | 2017 Fundshifts | 2017 Total Budget | 2017 Cycle Expenditures Spent in 2017 | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2017 Commitments as of 12/31/17 [5] | 2017 Unspent/Uncommitted Funds Available for 2018 offset | 2018 Authorized Budget [12]                  | 2018 Fundshifts | 2018 Total Budget |
| <b>PGE2100</b>         | <b>Residential Energy Efficiency Programs Total</b>               | \$ -  | \$ 10,622,188                       | \$ -   | \$ 62,652,625                                | -               | \$ 62,652,625     | \$ 52,797,764                         | \$ -  | \$ 275,011                          | \$ -   | \$ 55,622,926                                | -               | \$ 55,622,926     |
| PGE21001               | Residential Energy Advisor  | \$ -  | \$ -                                | \$ -   | \$ 16,998,320                                | -               | \$ 16,998,320     | \$ 13,355,709                         | \$ -  | \$ -                                | \$ -   | \$ 14,692,263                                | -               | \$ 14,692,263     |
| PGE21002               | Plug Load and Appliances  | \$ -  | \$ 303                              | \$ -   | \$ 12,175,962                                | -               | \$ 12,175,962     | \$ 11,396,952                         | \$ -  | \$ 176,200                          | \$ -   | \$ 10,600,377                                | -               | \$ 10,600,377     |
| PGE21003               | Multifamily Energy Efficiency                                     | \$ -  | \$ -                                | \$ -   | \$ 677,058                                   | -               | \$ 677,058        | \$ 126,806                            | \$ -  | \$ -                                | \$ -   | \$ 6,779,725                                 | -               | \$ 6,779,725      |
| PGE21004               | Energy Upgrade California   | \$ -  | \$ -                                | \$ -   | \$ 14,514,755                                | -               | \$ 14,514,755     | \$ 17,690,082                         | \$ -  | \$ 53,440                           | \$ -   | \$ 10,707,759                                | -               | \$ 10,707,759     |
| PGE21005               | Residential New Construction                                      | \$ -  | \$ 10,621,885                       | \$ -   | \$ 5,947,372                                 | -               | \$ 5,947,372      | \$ 6,721,490                          | \$ -  | \$ -                                | \$ -   | \$ 6,770,695                                 | -               | \$ 6,770,695      |
| PGE21006               | Residential HVAC  | \$ -  | \$ -                                | \$ -   | \$ 9,515,664                                 | -               | \$ 9,515,664      | \$ 3,160,623                          | \$ -  | \$ 45,371                           | \$ -   | \$ 5,318,382                                 | -               | \$ 5,318,382      |
| PGE21010               | Pay for Performance Pilot   | \$ -  | \$ -                                | \$ -   | \$ 2,823,495                                 | -               | \$ 2,823,495      | \$ 346,104                            | \$ -  | \$ -                                | \$ -   | \$ 753,726                                   | -               | \$ 753,726        |
| <b>PGE2101</b>         | <b>Commercial Programs Total</b>                                  | \$ -  | \$ 13,647,258                       | \$ -   | \$ 70,945,809                                | -               | \$ 70,945,809     | \$ 57,892,760                         | \$ -  | \$ 12,350,081                       | \$ -   | \$ 64,732,629                                | -               | \$ 64,732,629     |
| PGE21011               | Commercial Calculated Incentives                                  | \$ -  | \$ 9,584,741                        | \$ -   | \$ 22,085,875                                | -               | \$ 22,085,875     | \$ 12,720,207                         | \$ -  | \$ 6,729,118                        | \$ -   | \$ 23,262,758                                | -               | \$ 23,262,758     |
| PGE211025              | Savings by Design (SBD)   | \$ -  | \$ 3,107,426                        | \$ -   | \$ 6,136,870                                 | -               | \$ 6,136,870      | \$ 4,727,014                          | \$ -  | \$ 3,997,568                        | \$ -   | \$ 9,111,221                                 | -               | \$ 9,111,221      |
| PGE21012               | Commercial Deemed Incentives                                      | \$ -  | \$ 955,090                          | \$ -   | \$ 20,590,599                                | -               | \$ 20,590,599     | \$ 23,189,689                         | \$ -  | \$ 1,335,834                        | \$ -   | \$ 19,367,904                                | -               | \$ 19,367,904     |
| PGE21013               | Commercial Continuous Energy Improvement                          | \$ -  | \$ -                                | \$ -   | \$ 1,361,810                                 | -               | \$ 1,361,810      | \$ 398,924                            | \$ -  | \$ -                                | \$ -   | \$ 240,150                                   | -               | \$ 240,150        |
| PGE21014               | Commercial Energy Advisor   | \$ -  | \$ -                                | \$ -   | \$ 4,645,605                                 | -               | \$ 4,645,605      | \$ 1,783,055                          | \$ -  | \$ -                                | \$ -   | \$ 2,123,638                                 | -               | \$ 2,123,638      |
| PGE21015               | Commercial HVAC   | \$ -  | \$ -                                | \$ -   | \$ 16,125,050                                | -               | \$ 16,125,050     | \$ 15,073,871                         | \$ -  | \$ 287,561                          | \$ -   | \$ 10,626,958                                | -               | \$ 10,626,958     |
| <b>PGE2103</b>         | <b>Agricultural Programs Total</b>                                | \$ -  | \$ 2,927,707                        | \$ -   | \$ 15,416,439                                | -               | \$ 15,416,439     | \$ 13,473,189                         | \$ -  | \$ 2,450,731                        | \$ -   | \$ 17,238,326                                | -               | \$ 17,238,326     |
| PGE21031               | Agricultural Calculated Incentives                                | \$ -  | \$ 2,852,046                        | \$ -   | \$ 5,384,644                                 | -               | \$ 5,384,644      | \$ 3,359,466                          | \$ -  | \$ 2,375,927                        | \$ -   | \$ 9,155,062                                 | -               | \$ 9,155,062      |
| PGE21032               | Agricultural Deemed Incentives                                    | \$ -  | \$ 75,661                           | \$ -   | \$ 5,677,746                                 | -               | \$ 5,677,746      | \$ 7,337,881                          | \$ -  | \$ 73,664                           | \$ -   | \$ 4,758,784                                 | -               | \$ 4,758,784      |
| PGE21033               | Agricultural Continuous Energy Improvement                        | \$ -  | \$ -                                | \$ -   | \$ 226,700                                   | -               | \$ 226,700        | \$ 70,219                             | \$ -  | \$ -                                | \$ -   | \$ 67,740                                    | -               | \$ 67,740         |
| PGE21034               | Agricultural Energy Advisor                                       | \$ -  | \$ -                                | \$ -   | \$ 4,127,350                                 | -               | \$ 4,127,350      | \$ 2,705,623                          | \$ -  | \$ 1,140                            | \$ -   | \$ 3,256,739                                 | -               | \$ 3,256,739      |
| <b>PGE2102</b>         | <b>Industrial Programs Total</b>                                  | \$ -  | \$ 12,939,997                       | \$ -   | \$ 13,060,791                                | -               | \$ 13,060,791     | \$ 10,692,100                         | \$ -  | \$ 2,297,869                        | \$ -   | \$ 18,155,388                                | -               | \$ 18,155,388     |
| PGE21021               | Industrial Calculated Incentives                                  | \$ -  | \$ 12,850,024                       | \$ -   | \$ 8,899,910                                 | -               | \$ 8,899,910      | \$ 8,670,968                          | \$ -  | \$ 2,229,456                        | \$ -   | \$ 12,115,800                                | -               | \$ 12,115,800     |
| PGE21022               | Industrial Deemed Incentives                                      | \$ -  | \$ 89,973                           | \$ -   | \$ 2,141,873                                 | -               | \$ 2,141,873      | \$ 1,475,622                          | \$ -  | \$ 68,413                           | \$ -   | \$ 4,157,505                                 | -               | \$ 4,157,505      |
| PGE21023               | Industrial Continuous Energy Improvement                          | \$ -  | \$ -                                | \$ -   | \$ 135,480                                   | -               | \$ 135,480        | \$ 82,159                             | \$ -  | \$ -                                | \$ -   | \$ 67,233                                    | -               | \$ 67,233         |
| PGE21024               | Industrial Energy Advisor   | \$ -  | \$ -                                | \$ -   | \$ 1,511,322                                 | -               | \$ 1,511,322      | \$ 305,034                            | \$ -  | \$ -                                | \$ -   | \$ 597,692                                   | -               | \$ 597,692        |
| PGE21030               | Industrial Strategic Energy Management                            | \$ -  | \$ -                                | \$ -   | \$ 372,206                                   | -               | \$ 372,206        | \$ 158,316                            | \$ -  | \$ -                                | \$ -   | \$ 1,217,158                                 | -               | \$ 1,217,158      |
| <b>PGE2104</b>         | <b>Lighting Programs Total</b>                                    | \$ -  | \$ -                                | \$ -   | \$ 12,082,245                                | -               | \$ 12,082,245     | \$ 11,746,184                         | \$ -  | \$ 58,461                           | \$ -   | \$ 11,131,075                                | -               | \$ 11,131,075     |
| PGE21041               | Primary Lighting  | \$ -  | \$ -                                | \$ -   | \$ 10,970,646                                | -               | \$ 10,970,646     | \$ 11,245,149                         | \$ -  | \$ 58,461                           | \$ -   | \$ 10,711,690                                | -               | \$ 10,711,690     |
| PGE21042               | Lighting Innovation   | \$ -  | \$ -                                | \$ -   | \$ 734,898                                   | -               | \$ 734,898        | \$ 387,383                            | \$ -  | \$ -                                | \$ -   | \$ 357,652                                   | -               | \$ 357,652        |
| PGE21043               | Lighting Market Transformation                                    | \$ -  | \$ -                                | \$ -   | \$ 376,702                                   | -               | \$ 376,702        | \$ 113,652                            | \$ -  | \$ -                                | \$ -   | \$ 61,733                                    | -               | \$ 61,733         |
| <b>PGE2105</b>         | <b>Codes &amp; Standards Programs Total</b>                       | \$ -  | \$ -                                | \$ -   | \$ 17,113,967                                | -               | \$ 17,113,967     | \$ 16,216,003                         | \$ -  | \$ -                                | \$ -   | \$ 16,183,839                                | -               | \$ 16,183,839     |
| PGE21051               | Building Codes Advocacy   | \$ -  | \$ -                                | \$ -   | \$ 4,297,883                                 | -               | \$ 4,297,883      | \$ 4,228,535                          | \$ -  | \$ -                                | \$ -   | \$ 4,331,109                                 | -               | \$ 4,331,109      |
| PGE21052               | Appliance Standards Advocacy                                      | \$ -  | \$ -                                | \$ -   | \$ 6,076,435                                 | -               | \$ 6,076,435      | \$ 4,698,784                          | \$ -  | \$ -                                | \$ -   | \$ 4,774,497                                 | -               | \$ 4,774,497      |
| PGE21053               | Compliance Improvement  | \$ -  | \$ -                                | \$ -   | \$ 4,347,595                                 | -               | \$ 4,347,595      | \$ 4,652,165                          | \$ -  | \$ -                                | \$ -   | \$ 4,044,129                                 | -               | \$ 4,044,129      |
| PGE21054               | Reach Codes   | \$ -  | \$ -                                | \$ -   | \$ 526,723                                   | -               | \$ 526,723        | \$ 518,145                            | \$ -  | \$ -                                | \$ -   | \$ 604,747                                   | -               | \$ 604,747        |
| PGE21055               | Planning and Coordination   | \$ -  | \$ -                                | \$ -   | \$ 504,030                                   | -               | \$ 504,030        | \$ 481,879                            | \$ -  | \$ -                                | \$ -   | \$ 650,922                                   | -               | \$ 650,922        |
| PGE21056               | Code Readiness  | \$ -  | \$ -                                | \$ -   | \$ 1,361,301                                 | -               | \$ 1,361,301      | \$ 1,636,495                          | \$ -  | \$ -                                | \$ -   | \$ 1,778,436                                 | -               | \$ 1,778,436      |
| PGE21057               | National Codes & Standards Advocacy                               | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| <b>PGE2106</b>         | <b>Emerging Technologies Programs Total</b>                       | \$ -  | \$ -                                | \$ -   | \$ 7,930,755                                 | -               | \$ 7,930,755      | \$ 4,193,096                          | \$ -  | \$ -                                | \$ -   | \$ 5,629,976                                 | -               | \$ 5,629,976      |
| PGE21061               | Technology Development Support                                    | \$ -  | \$ -                                | \$ -   | \$ 1,416,527                                 | -               | \$ 1,416,527      | \$ 782,379                            | \$ -  | \$ -                                | \$ -   | \$ 942,398                                   | -               | \$ 942,398        |
| PGE21062               | Technology Assessments  | \$ -  | \$ -                                | \$ -   | \$ 2,544,857                                 | -               | \$ 2,544,857      | \$ 1,294,627                          | \$ -  | \$ -                                | \$ -   | \$ 1,929,215                                 | -               | \$ 1,929,215      |
| PGE21063               | Technology Introduction Support                                   | \$ -  | \$ -                                | \$ -   | \$ 3,969,371                                 | -               | \$ 3,969,371      | \$ 2,116,091                          | \$ -  | \$ -                                | \$ -   | \$ 2,758,363                                 | -               | \$ 2,758,363      |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Programs Total</b>          | \$ -  | \$ -                                | \$ -   | \$ 10,682,374                                | -               | \$ 10,682,374     | \$ 10,065,520                         | \$ -  | \$ -                                | \$ -   | \$ 11,038,180                                | -               | \$ 11,038,180     |
| PGE21071               | Integrated Energy Education and Training                          | \$ -  | \$ -                                | \$ -   | \$ 8,733,939                                 | -               | \$ 8,733,939      | \$ 7,928,260                          | \$ -  | \$ -                                | \$ -   | \$ 8,564,820                                 | -               | \$ 8,564,820      |
| PGE21072               | Connections   | \$ -  | \$ -                                | \$ -   | \$ 1,328,476                                 | -               | \$ 1,328,476      | \$ 1,725,513                          | \$ -  | \$ -                                | \$ -   | \$ 1,900,879                                 | -               | \$ 1,900,879      |
| PGE21073               | Strategic Planning  | \$ -  | \$ -                                | \$ -   | \$ 619,959                                   | -               | \$ 619,959        | \$ 411,746                            | \$ -  | \$ -                                | \$ -   | \$ 572,481                                   | -               | \$ 572,481        |
| PGE21076               | Career and Workforce Readiness                                    | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| <b>PGE2108</b>         | <b>Statewide DSM Coordination &amp; Integration Program Total</b> | \$ -  | \$ -                                | \$ -   | \$ 547,921                                   | -               | \$ 547,921        | \$ 135,577                            | \$ -  | \$ -                                | \$ -   | \$ 547,921                                   | -               | \$ 547,921        |
| PGE21081               | Statewide DSM Coordination & Integration                          | \$ -  | \$ -                                | \$ -   | \$ 547,921                                   | -               | \$ 547,921        | \$ 135,577                            | \$ -  | \$ -                                | \$ -   | \$ 547,921                                   | -               | \$ 547,921        |
| <b>PGE2109</b>         | <b>Financing Programs Total</b>                                   | \$ -  | \$ -                                | \$ -   | \$ 4,600,866                                 | -               | \$ 4,600,866      | \$ 3,251,837                          | \$ -  | \$ -                                | \$ -   | \$ 4,158,662                                 | -               | \$ 4,158,662      |
| PGE21091               | On-Bill Financing (excludes Loan Pool)                            | \$ -  | \$ -                                | \$ -   | \$ 1,939,167                                 | -               | \$ 1,939,167      | \$ 2,639,847                          | \$ -  | \$ -                                | \$ -   | \$ 3,141,013                                 | -               | \$ 3,141,013      |
| PGE21092               | Third-Party Financing   | \$ -  | \$ -                                | \$ -   | \$ 942,678                                   | -               | \$ 942,678        | \$ 550,872                            | \$ -  | \$ -                                | \$ -   | \$ 660,195                                   | -               | \$ 660,195        |
| PGE21093               | New Financing Offerings [9]                                       | \$ -  | \$ -                                | \$ -   | \$ 934,746                                   | -               | \$ 934,746        | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210911              | On Bill Financing Alternative Pathway                             | \$ -  | \$ -                                | \$ -   | \$ 784,275                                   | -               | \$ 784,275        | \$ 61,118                             | \$ -  | \$ -                                | \$ -   | \$ 357,454                                   | -               | \$ 357,454        |
| <b>PGE2100</b>         | <b>Third-Party Programs (Competitively Bid) Total</b>             | \$ -  | \$ 2,620,229                        | \$ -   | \$ 86,532,089                                | -               | \$ 86,532,089     | \$ 58,282,454                         | \$ -  | \$ 21,209,506                       | \$ -   | \$ 75,653,627                                | -               | \$ 75,653,627     |
| <b>PGE2100</b>         | <b>Residential Third Party Programs SubTotal</b>                  | \$ -  | \$ 10,343                           | \$ -   | \$ 9,667,015                                 | -               | \$ 9,667,015      | \$ 11,357,494                         | \$ -  | \$ 32,784                           | \$ -   | \$ 13,319,768                                | -               | \$ 13,319,768     |
| PGE21007               | California New Homes Multifamily                                  | \$ -  | \$ -                                | \$ -   | \$ 1,828,344                                 | -               | \$ 1,828,344      | \$ 1,277,592                          | \$ -  | \$ -                                | \$ -   | \$ 1,460,826                                 | -               | \$ 1,460,826      |
| PGE21008               | Enhance Time Delay Relay  | \$ -  | \$ 10,343                           | \$ -   | \$ 2,902,239                                 | -               | \$ 2,902,239      | \$ 3,058,715                          | \$ -  | \$ 4,475                            | \$ -   | \$ 1,536,619                                 | -               | \$ 1,536,619      |
| PGE21009               | Direct Install for Manufactured and Mobile Homes                  | \$ -  | \$ -                                | \$ -   | \$ 3,743,632                                 | -               | \$ 3,743,632      | \$ 4,051,759                          | \$ -  | \$ 3,371                            | \$ -   | \$ 5,242,617                                 | -               | \$ 5,242,617      |
| PGE210132              | RSG The Smarter Water Heater                                      | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210011              | Residential Energy Fitness Program                                | \$ -  | \$ -                                | \$ -   | \$ 1,192,800                                 | -               | \$ 1,192,800      | \$ 2,969,428                          | \$ -  | \$ 24,938                           | \$ -   | \$ 5,079,706                                 | -               | \$ 5,079,706      |
| <b>PGE2101</b>         | <b>Commercial Third Party Programs SubTotal</b>                   | \$ -  | \$ 1,784,984                        | \$ -   | \$ 31,191,606                                | -               | \$ 31,191,606     | \$ 25,347,402                         | \$ -  | \$ 11,310,117                       | \$ -   | \$ 27,827,481                                | -               | \$ 27,827,481     |
| PGE210110              | Monitoring-Based Persistence Commissioning                        | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210111              | LodgingSavers   | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210112              | School Energy Efficiency  | \$ -  | \$ 485,773                          | \$ -   | \$ 1,512,412                                 | -               | \$ 1,512,412      | \$ 2,319,689                          | \$ -  | \$ 228,165                          | \$ -   | \$ 2,971,983                                 | -               | \$ 2,971,983      |
| PGE210113              | Energy Fitness Program  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ 29                                 | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210114              | Energy Savers   | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210115              | RightLights   | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210116              | Small Business Commercial Comprehensive                           | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210117              | Energy-Efficient Parking Garage                                   | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |
| PGE210118              | Retail Energy Efficiency  | \$ -  | \$ 284,065                          | \$ -   | \$ 3,856,419                                 | -               | \$ 3,856,419      | \$ 596,194                            | \$ -  | \$ -                                | \$ -   | \$ -   | -               | \$ -              |



PA Name: Pacific Gas and Electric Company  
Budget Year: 2019

Table 4 – Budget, Spent, Unspent, Carryover Details

| d Carryover            |   | 2017 Budget, Fundshifts and Spending to Date          |                                     |  |                        |                 |                   |                                       |   |                                     |  | 2018 Budget, Fundshifts and Spending to Date |                 |                   |
|------------------------|---|---|-------------------------------------|--|------------------------|-----------------|-------------------|---------------------------------------|---|-------------------------------------|--|--|-----------------|-------------------|
| New/Existing Program # | Main Program Name / Sub-Program Name                                    | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2016 Commitments as of 12/31/16 [5] | 2016 Unspent/Uncommitted Funds Available for 2018 offset | 2017 Authorized Budget | 2017 Fundshifts | 2017 Total Budget | 2017 Cycle Expenditures Spent in 2017 | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2017 Commitments as of 12/31/17 [5] | 2017 Unspent/Uncommitted Funds Available for 2018 offset | 2018 Authorized Budget [12]                  | 2018 Fundshifts | 2018 Total Budget |
| PGE210119              | LED Accelerator   | \$ -  | \$ 720                              | \$ -   | \$ 4,174,961           | \$ -            | \$ 4,174,961      | \$ 2,685,760                          | \$ -  | \$ 67,231                           | \$ -   | \$ 2,995,445                                 | \$ -            | \$ 2,995,445      |
| PGE210120              | Monitoring-Based Commissioning  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210122              | Casino Green  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210123              | Healthcare Energy Efficiency Program                                    | \$ -  | \$ -                                | \$ -   | \$ 1,371,119           | \$ -            | \$ 1,371,119      | \$ 346,865                            | \$ -  | \$ 436,641                          | \$ -   | \$ 2,244,672                                 | \$ -            | \$ 2,244,672      |
| PGE210124              | Ozone Laundry Energy Efficiency   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210125              | California Preschool Energy Efficiency Program                          | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210126              | K-12 Private Schools and Colleges Audit Retro                           | \$ -  | \$ 28,107                           | \$ -   | \$ 1,959,233           | \$ -            | \$ 1,959,233      | \$ 274,675                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210127              | Innovative Designs for Energy Efficiency Approaches (IDEEA)             | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210128              | Enovity SMART   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ (196)                              | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210129              | Nexant AERCx  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ (0)                                | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210130              | CLEAR Result AERCx  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ 147,432                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210131              | PECI AERCx  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ 93,714                             | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210136              | McKinstry Laboratory Fume Hoods   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210137              | Waypoint Commercial Outreach  | \$ -  | \$ -                                | \$ -   | \$ 901,094             | \$ -            | \$ 901,094        | \$ 8,014                              | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210138              | Data Center Air Flow and Temp Optimization                              | \$ -  | \$ -                                | \$ -   | \$ 512,895             | \$ -            | \$ 512,895        | \$ 202,388                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210139              | SEI Energize Schools Program  | \$ -  | \$ -                                | \$ -   | \$ 411,884             | \$ -            | \$ 411,884        | \$ 444,299                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210140              | Mazzetti Dynamic Gas Scavenging System                                  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210141              | Lincus Commercial Mid-Market Program                                    | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210143              | Hospitality Program   | \$ -  | \$ 866,140                          | \$ -   | \$ 8,828,990           | \$ -            | \$ 8,828,990      | \$ 9,399,480                          | \$ -  | \$ 254,143                          | \$ -   | \$ 12,626,882                                | \$ -            | \$ 12,626,882     |
| PGE21016               | Air Care Plus   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ 263,282                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21017               | Boiler Energy Efficiency Program  | \$ -  | \$ 78,065                           | \$ -   | \$ 806,844             | \$ -            | \$ 806,844        | \$ 805,932                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21018               | EnergySmart Grocer  | \$ -  | \$ 42,115                           | \$ -   | \$ 6,855,755           | \$ -            | \$ 6,855,755      | \$ 7,759,847                          | \$ -  | \$ 10,323,937                       | \$ -   | \$ 6,672,373                                 | \$ -            | \$ 6,672,373      |
| PGE21019               | Enhanced Automation Initiative  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE2103                | <b>Agricultural Third Party Programs SubTotal</b>                       | \$ -  | \$ 642,431                          | \$ -   | \$ 15,982,677          | \$ -            | \$ 15,982,677     | \$ 5,916,331                          | \$ -  | \$ 2,625,063                        | \$ -   | \$ 8,589,707                                 | \$ -            | \$ 8,589,707      |
| PGE210310              | Dairy Industry Resource Advantage Pgm                                   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210311              | Process Wastewater Treatment EM Pgm for Ag Food Processing              | \$ -  | \$ -                                | \$ -   | \$ 1,110,018           | \$ -            | \$ 1,110,018      | \$ 390,611                            | \$ -  | \$ 18,585                           | \$ -   | \$ 988,763                                   | \$ -            | \$ 988,763        |
| PGE210312              | Dairy and Winery Industry Efficiency Solutions                          | \$ -  | \$ 522,869                          | \$ -   | \$ 4,386,895           | \$ -            | \$ 4,386,895      | \$ 1,941,705                          | \$ -  | \$ 784,461                          | \$ -   | \$ 3,350,121                                 | \$ -            | \$ 3,350,121      |
| PGE210313              | Staples Low Pressure Irrigation DI                                      | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21035               | Dairy Energy Efficiency Program   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21036               | Industrial Refrigeration Performance Plus                               | \$ -  | \$ -                                | \$ -   | \$ 2,266,145           | \$ -            | \$ 2,266,145      | \$ 471,847                            | \$ -  | \$ 491,197                          | \$ -   | \$ 692,777                                   | \$ -            | \$ 692,777        |
| PGE21037               | Light Exchange Program  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21038               | Wine Industry Efficiency Solutions                                      | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21039               | Comprehensive Food Process Audit & Resource Efficiency Pgm              | \$ -  | \$ 119,561                          | \$ -   | \$ 8,219,619           | \$ -            | \$ 8,219,619      | \$ 3,112,167                          | \$ -  | \$ 1,330,820                        | \$ -   | \$ 3,558,046                                 | \$ -            | \$ 3,558,046      |
| PGE2102                | <b>Industrial Third Party Programs SubTotal</b>                         | \$ -  | \$ 182,471                          | \$ -   | \$ 29,690,792          | \$ -            | \$ 29,690,792     | \$ 15,661,227                         | \$ -  | \$ 7,241,542                        | \$ -   | \$ 25,916,672                                | \$ -            | \$ 25,916,672     |
| PGE210210              | Industrial Recommissioning Program                                      | \$ -  | \$ -                                | \$ -   | \$ 1,669,289           | \$ -            | \$ 1,669,289      | \$ 446,488                            | \$ -  | \$ 646,889                          | \$ -   | \$ 2,245,631                                 | \$ -            | \$ 2,245,631      |
| PGE210211              | Light Industrial Energy Efficiency                                      | \$ -  | \$ -                                | \$ -   | \$ 1,120,799           | \$ -            | \$ 1,120,799      | \$ 217,555                            | \$ -  | \$ 45,855                           | \$ -   | \$ 546,368                                   | \$ -            | \$ 546,368        |
| PGE210212              | Industrial Compressed Air System Efficiency                             | \$ -  | \$ -                                | \$ -   | \$ 889,186             | \$ -            | \$ 889,186        | \$ 233,412                            | \$ -  | \$ 185,778                          | \$ -   | \$ 270,590                                   | \$ -            | \$ 270,590        |
| PGE210213              | Small Petrochemical Energy Efficiency                                   | \$ -  | \$ -                                | \$ -   | \$ 1,228,940           | \$ -            | \$ 1,228,940      | \$ 236,774                            | \$ -  | \$ 3,624                            | \$ -   | \$ 714,660                                   | \$ -            | \$ 714,660        |
| PGE21025               | California Wastewater Process Optimization                              | \$ -  | \$ -                                | \$ -   | \$ 879,788             | \$ -            | \$ 879,788        | \$ 167,288                            | \$ -  | \$ 284,814                          | \$ -   | \$ 1,227,756                                 | \$ -            | \$ 1,227,756      |
| PGE21026               | Energy Efficiency Services for Oil Production                           | \$ -  | \$ -                                | \$ -   | \$ 5,028,847           | \$ -            | \$ 5,028,847      | \$ 1,134,765                          | \$ -  | \$ 1,621,548                        | \$ -   | \$ 3,737,735                                 | \$ -            | \$ 3,737,735      |
| PGE21027               | Heavy Industry Energy Efficiency Program                                | \$ -  | \$ 182,471                          | \$ -   | \$ 15,288,395          | \$ -            | \$ 15,288,395     | \$ 8,478,932                          | \$ -  | \$ 1,794,208                        | \$ -   | \$ 13,179,841                                | \$ -            | \$ 13,179,841     |
| PGE21028               | Industrial Compressed Air Program                                       | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ (3,719)                            | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21029               | Refinery Energy Efficiency Program                                      | \$ -  | \$ -                                | \$ -   | \$ 952,965             | \$ -            | \$ 952,965        | \$ 1,520,486                          | \$ -  | \$ 2,567,126                        | \$ -   | \$ 1,666,727                                 | \$ -            | \$ 1,666,727      |
| PGE210135              | Lincus WISE   | \$ -  | \$ -                                | \$ -   | \$ 2,632,582           | \$ -            | \$ 2,632,582      | \$ 3,229,245                          | \$ -  | \$ 91,700                           | \$ -   | \$ 2,327,364                                 | \$ -            | \$ 2,327,364      |
| PGE210142              | Ameresco Intelligent Energy Efficiency                                  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE2107                | <b>Workforce Education &amp; Training Third Party Programs SubTotal</b> | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21074               | Builder Energy Code Training  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE21075               | Green Building Technical Support Services                               | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE210134              | Bridges to Energy Sector Opportunities                                  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE2110                | <b>Government Partnership Programs Total</b>                            | \$ -  | \$ 6,076,600                        | \$ -   | \$ 74,542,976          | \$ -            | \$ 74,542,976     | \$ 56,789,532                         | \$ -  | \$ 3,815,328                        | \$ -   | \$ 72,368,174                                | \$ -            | \$ 72,368,174     |
| PGE2110011             | California Community Colleges   | \$ -  | \$ 1,263,079                        | \$ -   | \$ 2,650,376           | \$ -            | \$ 2,650,376      | \$ 991,734                            | \$ -  | \$ 779,480                          | \$ -   | \$ 4,448,702                                 | \$ -            | \$ 4,448,702      |
| PGE2110012             | University of California/California State University                    | \$ -  | \$ 3,248,820                        | \$ -   | \$ 6,135,203           | \$ -            | \$ 6,135,203      | \$ 3,495,997                          | \$ -  | \$ 1,877,527                        | \$ -   | \$ 4,703,997                                 | \$ -            | \$ 4,703,997      |
| PGE2110013             | State of California   | \$ -  | \$ -                                | \$ -   | \$ 922,797             | \$ -            | \$ 922,797        | \$ 657,152                            | \$ -  | \$ 9,990                            | \$ -   | \$ 1,005,394                                 | \$ -            | \$ 1,005,394      |
| PGE2110014             | Department of Corrections and Rehabilitation                            | \$ -  | \$ 715,062                          | \$ -   | \$ 2,036,885           | \$ -            | \$ 2,036,885      | \$ 703,393                            | \$ -  | \$ 818,225                          | \$ -   | \$ 1,677,562                                 | \$ -            | \$ 1,677,562      |
| PGE2110051             | Local Government Energy Action Resources (LGEAR)                        | \$ -  | \$ 15,808                           | \$ -   | \$ 8,687,570           | \$ -            | \$ 8,687,570      | \$ 3,504,107                          | \$ -  | \$ -                                | \$ -   | \$ 6,059,173                                 | \$ -            | \$ 6,059,173      |
| PGE2110052             | Strategic Energy Resources  | \$ -  | \$ -                                | \$ -   | \$ 9,885,399           | \$ -            | \$ 9,885,399      | \$ 7,138,904                          | \$ -  | \$ -                                | \$ -   | \$ 9,632,258                                 | \$ -            | \$ 9,632,258      |
| PGE211007              | Association of Monterey Bay Area Governments (AMBAG)                    | \$ -  | \$ 101,248                          | \$ -   | \$ 3,732,609           | \$ -            | \$ 3,732,609      | \$ 4,056,257                          | \$ -  | \$ 58,408                           | \$ -   | \$ 3,744,061                                 | \$ -            | \$ 3,744,061      |
| PGE211009              | East Bay  | \$ -  | \$ 97,015                           | \$ -   | \$ 6,093,616           | \$ -            | \$ 6,093,616      | \$ 6,136,966                          | \$ -  | \$ 57,559                           | \$ -   | \$ 6,129,105                                 | \$ -            | \$ 6,129,105      |
| PGE211010              | Fresno  | \$ -  | \$ 1,787                            | \$ -   | \$ 2,601,225           | \$ -            | \$ 2,601,225      | \$ 1,920,517                          | \$ -  | \$ 98,291                           | \$ -   | \$ 2,648,728                                 | \$ -            | \$ 2,648,728      |
| PGE211011              | Kern  | \$ -  | \$ -                                | \$ -   | \$ 2,680,280           | \$ -            | \$ 2,680,280      | \$ 2,436,122                          | \$ -  | \$ -                                | \$ -   | \$ 2,725,208                                 | \$ -            | \$ 2,725,208      |
| PGE211012              | Madera  | \$ -  | \$ -                                | \$ -   | \$ 326,472             | \$ -            | \$ 326,472        | \$ 413,979                            | \$ -  | \$ -                                | \$ -   | \$ 363,621                                   | \$ -            | \$ 363,621        |
| PGE211013              | Marin County  | \$ -  | \$ 2,373                            | \$ -   | \$ 1,281,629           | \$ -            | \$ 1,281,629      | \$ 747,329                            | \$ -  | \$ 3,585                            | \$ -   | \$ 1,271,550                                 | \$ -            | \$ 1,271,550      |
| PGE211014              | Mendocino/Lake County   | \$ -  | \$ -                                | \$ -   | \$ 634,221             | \$ -            | \$ 634,221        | \$ 545,040                            | \$ -  | \$ -                                | \$ -   | \$ 711,132                                   | \$ -            | \$ 711,132        |
| PGE211015              | Napa County   | \$ -  | \$ -                                | \$ -   | \$ 530,485             | \$ -            | \$ 530,485        | \$ 311,606                            | \$ -  | \$ -                                | \$ -   | \$ 557,007                                   | \$ -            | \$ 557,007        |
| PGE211016              | Redwood Coast   | \$ -  | \$ 5,429                            | \$ -   | \$ 1,609,191           | \$ -            | \$ 1,609,191      | \$ 1,192,649                          | \$ -  | \$ 46                               | \$ -   | \$ 1,598,179                                 | \$ -            | \$ 1,598,179      |
| PGE211018              | San Luis Obispo County  | \$ -  | \$ -                                | \$ -   | \$ 1,054,111           | \$ -            | \$ 1,054,111      | \$ 1,183,580                          | \$ -  | \$ -                                | \$ -   | \$ 1,076,601                                 | \$ -            | \$ 1,076,601      |
| PGE211019              | San Mateo County  | \$ -  | \$ 136,065                          | \$ -   | \$ 2,271,691           | \$ -            | \$ 2,271,691      | \$ 1,822,151                          | \$ -  | \$ -                                | \$ -   | \$ 2,279,756                                 | \$ -            | \$ 2,279,756      |

Table 4 – Budget, Spent, Unspent, Carryover Details

| d Carryover            |   | 2017 Budget, Fundshifts and Spending to Date          |                                     |  |                        |                 |                   |                                       |   |                                     |  | 2018 Budget, Fundshifts and Spending to Date |                 |                   |
|------------------------|---|---|-------------------------------------|--|------------------------|-----------------|-------------------|---------------------------------------|---|-------------------------------------|--|--|-----------------|-------------------|
| New/Existing Program # | Main Program Name / Sub-Program Name  | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2016 Commitments as of 12/31/16 [5] | 2016 Unspent/Uncommitted Funds Available for 2018 offset | 2017 Authorized Budget | 2017 Fundshifts | 2017 Total Budget | 2017 Cycle Expenditures Spent in 2017 | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2017 Commitments as of 12/31/17 [5] | 2017 Unspent/Uncommitted Funds Available for 2018 offset | 2018 Authorized Budget [12]                  | 2018 Fundshifts | 2018 Total Budget |
| PGE211020              | Santa Barbara   | \$ -  | \$ -                                | \$ -   | \$ 973,018             | \$ -            | \$ 973,018        | \$ 578,544                            | \$ -  | \$ -                                | \$ -   | \$ 1,008,901                                 | \$ -            | \$ 1,008,901      |
| PGE211021              | Sierra Nevada   | \$ -  | \$ 8,718                            | \$ -   | \$ 2,391,132           | \$ -            | \$ 2,391,132      | \$ 1,404,108                          | \$ -  | \$ 15,794                           | \$ -   | \$ 2,422,994                                 | \$ -            | \$ 2,422,994      |
| PGE211022              | Sonoma County   | \$ -  | \$ 534                              | \$ -   | \$ 1,764,538           | \$ -            | \$ 1,764,538      | \$ 2,301,325                          | \$ -  | \$ 14,177                           | \$ -   | \$ 1,756,500                                 | \$ -            | \$ 1,756,500      |
| PGE211023              | Silicon Valley  | \$ -  | \$ 323,658                          | \$ -   | \$ 3,793,893           | \$ -            | \$ 3,793,893      | \$ 5,110,637                          | \$ -  | \$ -                                | \$ -   | \$ 3,762,183                                 | \$ -            | \$ 3,762,183      |
| PGE211024              | San Francisco   | \$ -  | \$ 157,003                          | \$ -   | \$ 6,168,064           | \$ -            | \$ 6,168,064      | \$ 4,056,751                          | \$ -  | \$ 36,758                           | \$ -   | \$ 6,315,049                                 | \$ -            | \$ 6,315,049      |
| PGE211026              | North Valley  | \$ -  | \$ -                                | \$ -   | \$ 1,908,356           | \$ -            | \$ 1,908,356      | \$ 536,650                            | \$ -  | \$ -                                | \$ -   | \$ 1,898,230                                 | \$ -            | \$ 1,898,230      |
| PGE211027              | Sutter Buttes   | \$ -  | \$ -                                | \$ -   | \$ 446,216             | \$ -            | \$ 446,216        | \$ 343,251                            | \$ -  | \$ -                                | \$ -   | \$ 495,328                                   | \$ -            | \$ 495,328        |
| PGE211028              | Yolo  | \$ -  | \$ -                                | \$ -   | \$ 357,936             | \$ -            | \$ 357,936        | \$ 256,813                            | \$ -  | \$ -                                | \$ -   | \$ 415,574                                   | \$ -            | \$ 415,574        |
| PGE211029              | Solano  | \$ -  | \$ -                                | \$ -   | \$ 1,472,213           | \$ -            | \$ 1,472,213      | \$ 2,262,743                          | \$ -  | \$ 45,272                           | \$ -   | \$ 1,480,725                                 | \$ -            | \$ 1,480,725      |
| PGE211030              | Northern San Joaquin Valley   | \$ -  | \$ -                                | \$ -   | \$ 1,443,028           | \$ -            | \$ 1,443,028      | \$ 2,202,379                          | \$ -  | \$ 216                              | \$ -   | \$ 1,455,492                                 | \$ -            | \$ 1,455,492      |
| PGE211031              | Valley Innovative Energy Watch (VIEW)   | \$ -  | \$ -                                | \$ -   | \$ 690,825             | \$ -            | \$ 690,825        | \$ 478,848                            | \$ -  | \$ -                                | \$ -   | \$ 725,163                                   | \$ -            | \$ 725,163        |
|                        | Funds to be returned in rates [4]   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
|                        | 2013-2015 funds transferred to REN and CCA balancing accounts for 2016 [6]          | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
|                        | Pre-2013 Unspent Funds transferred to 2016 Commercial Deemed Incentives program [3] | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
|                        | <b>PG&amp;E PROGRAM TOTAL</b>   | \$ -  | \$ 48,833,978                       | \$ -   | \$ 376,108,857         | \$ -            | \$ 376,108,857    | \$ 295,536,016                        | \$ -  | \$ 42,456,987                       | \$ -   | \$ 352,460,723                               | \$ -            | \$ 352,460,723    |
| <b>EM&amp;V</b>        | <b>EM&amp;V (PA &amp; CPUC Portions) Total</b>                                      | \$ -  | \$ 15,672,827                       | \$ -   | \$ 16,988,842          | \$ -            | \$ 16,988,842     | \$ 2,509,699                          | \$ -  | \$ 14,479,143                       | \$ -   | \$ 16,522,072                                | \$ -            | \$ 16,522,072     |
| PGE_EMV                | PG&E EM&V - CPUC  | \$ -  | \$ 11,723,301                       | \$ -   | \$ 11,653,492          | \$ -            | \$ 11,653,492     | \$ 524,259                            | \$ -  | \$ 11,129,233                       | \$ -   | \$ 11,055,064                                | \$ -            | \$ 11,055,064     |
| PGE_EMV                | PG&E EM&V - PG&E  | \$ -  | \$ 3,949,526                        | \$ -   | \$ 4,580,210           | \$ -            | \$ 4,580,210      | \$ 2,083,440                          | \$ -  | \$ 2,496,770                        | \$ -   | \$ 4,193,300                                 | \$ -            | \$ 4,193,300      |
| PGE_EMV                | BayREN EM&V - CPUC  | \$ -  | \$ -                                | \$ -   | \$ 499,555             | \$ -            | \$ 499,555        | \$ (98,001)                           | \$ -  | \$ 597,556                          | \$ -   | \$ 675,609                                   | \$ -            | \$ 675,609        |
| PGE_EMV                | BayREN EM&V   | \$ -  | \$ -                                | \$ -   | \$ 189,486             | \$ -            | \$ 189,486        | \$ -                                  | \$ -  | \$ 189,486                          | \$ -   | \$ 256,266                                   | \$ -            | \$ 256,266        |
| PGE_EMV                | MCE EM&V - CPUC   | \$ -  | \$ -                                | \$ -   | \$ 47,921              | \$ -            | \$ 47,921         | \$ -                                  | \$ -  | \$ 47,921                           | \$ -   | \$ 247,829                                   | \$ -            | \$ 247,829        |
| PGE_EMV                | MCE EM&V  | \$ -  | \$ -                                | \$ -   | \$ 18,177              | \$ -            | \$ 18,177         | \$ -                                  | \$ -  | \$ 18,177                           | \$ -   | \$ 94,004                                    | \$ -            | \$ 94,004         |
| PGE_EMV                | 3C REN EM&V - CPUC  | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE_EMV                | 3C REN EM&V   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
|                        | <b>PG&amp;E TOTAL with EM&amp;V</b>   | \$ -  | \$ 64,506,805                       | \$ -   | \$ 393,097,699         | \$ -            | \$ 393,097,699    | \$ 298,045,715                        | \$ -  | \$ 56,936,130                       | \$ -   | \$ 368,982,795                               | \$ -            | \$ 368,982,795    |
| PGE_BayREN             | BayREN [10]   | \$ -  | \$ -                                | \$ -   | \$ 16,537,000          | \$ -            | \$ 16,537,000     | \$ 16,494,231                         | \$ -  | \$ 42,769                           | \$ -   | \$ 22,365,000                                | \$ -            | \$ 22,365,000     |
| PGE_MCE                | Marin Clean Energy [10]   | \$ 311,915  | \$ 104,615                          | \$ -   | \$ 1,586,347           | \$ -            | \$ 1,586,347      | \$ 1,816,622                          | \$ -  | \$ -                                | \$ -   | \$ 8,204,000                                 | \$ -            | \$ 8,204,000      |
| PGE_3C REN             | 3C REN [10]   | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
|                        | <b>TOTAL PG&amp;E EE EXPENSE PORTFOLIO</b>  | \$ 311,915  | \$ 64,611,421                       | \$ -   | \$ 411,221,046         | \$ -            | \$ 411,221,046    | \$ 316,356,567                        | \$ -  | \$ 56,978,899                       | \$ -   | \$ 399,551,795                               | \$ -            | \$ 399,551,795    |
| PGE21091LP             | OBF REVOLVING LOAN POOL   | \$ -  | \$ 7,775,543                        | \$ -   | \$ 13,500,000          | \$ -            | \$ 13,500,000     | \$ 8,344,822                          | \$ -  | \$ 5,155,178                        | \$ -   | \$ 13,500,000                                | \$ -            | \$ 13,500,000     |
|                        | <b>TOTAL PG&amp;E EE PORTFOLIO</b>  | \$ 311,915  | \$ 72,386,964                       | \$ -   | \$ 424,721,046         | \$ -            | \$ 424,721,046    | \$ 324,701,390                        | \$ -  | \$ 62,134,077                       | \$ -   | \$ 413,051,795                               | \$ -            | \$ 413,051,795    |
|                        | <b>Other EE-Related Budgets</b>   |   |                                     |  |                        |                 |                   |                                       |   |                                     |  |  |                 |                   |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program Total                           | \$ -  | \$ -                                | \$ -   | \$ 6,840,739           | \$ -            | \$ 6,840,739      | \$ 7,269,185                          | \$ -  | \$ -                                | \$ -   | \$ 6,840,979                                 | \$ -            | \$ 6,840,979      |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program (Flex Alert) [11]               | \$ -  | \$ -                                | \$ -   | \$ -                   | \$ -            | \$ -              | \$ -                                  | \$ -  | \$ -                                | \$ -   | \$ -   | \$ -            | \$ -              |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program [11]                            | \$ -  | \$ -                                | \$ -   | \$ 6,840,739           | \$ -            | \$ 6,840,739      | \$ 7,269,185                          | \$ -  | \$ -                                | \$ -   | \$ 6,840,979                                 | \$ -            | \$ 6,840,979      |

**PA Name: Pacific Gas and Electric Company**  
**Budget Year: 2019**

**Table 4 – Budget, Spent, Unspent, Carryover Details**

|                        |                                      | d Carryover   |                                     |  | 2017 Budget, Fundshifts and Spending to Date |                 |                   |                                       |   |                                     |  | 2018 Budget, Fundshifts and Spending to Date |                 |                   |
|------------------------|--------------------------------------|---|-------------------------------------|--|--|-----------------|-------------------|---------------------------------------|---|-------------------------------------|--|--|-----------------|-------------------|
| New/Existing Program # | Main Program Name / Sub-Program Name | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2016 Commitments as of 12/31/16 [5] | 2016 Unspent/Uncommitted Funds Available for 2018 offset | 2017 Authorized Budget                       | 2017 Fundshifts | 2017 Total Budget | 2017 Cycle Expenditures Spent in 2017 | 2016 Unspent/Uncommitted Funds Returned to Ratepayers | 2017 Commitments as of 12/31/17 [5] | 2017 Unspent/Uncommitted Funds Available for 2018 offset | 2018 Authorized Budget [12]                  | 2018 Fundshifts | 2018 Total Budget |

- Notes:
- "2015 Total Budget with Commitments & Fundshifts" reflects funds av
  - "2015 Total Budget Spent" includes spending in 2015 paid from the 2
  - "Requested Carry Over of pre-2013 Unspent Funds to 2016" identifie column G, PG&Ewas approved authorization to shift \$9.9m of pre-2013
  - The CPUC approved AL 3718-G/4852-E on July 11, 2016, authorizin and electric EE balancing accounts.
  - Commitments as of 12/31/2015 (column I), 12/31/2016 (column R), a PG&E's balancing accounts; this may include BayREN expenses or MC
  - 2013-2015 Unspent/Committed Funds, Carryover to 2016" Identifies
    - New Financing Offerings: In D. 15-06-008, the Commission ordered New financing pilot subprogram funds collected during 2013-2014 p
    - Funds Transferred to REN and CCA balancing accounts: In D.16-0 cycle unless and until modified by the Commission. The CPUC appr authorized for BayREN a one-time budget increase of \$3,700,000 tr
    - Marin Clean Energy: MCE's 2015 authorized gas budget included \$ \$382,818 of gas payments from PG&E to MCE, \$36,182 is available
  - "Pre-2016 unspent/uncommitted funds available for 2017 offset" iden funds from 2009 and 2010–2012 are represented in Column G. In 2017 that of the \$230,474, a refund should have occurred in the amount of \$3
  - "2019 Proposed Budget" reflects the budget request for 2019, which
  - Advice Letter 3589-G-C/4624-E-C, approved June 29, 2015, effective subaccounts. The \$14 million referenced in cell H57 was transferred to
  - BayREN, MCE and 3C-REN figures generally represent the level of
  - Statewide ME&O budgets for 2017 through 2019 were approved in
  - The "2018 Authorized Budget" in Table 4 represents PG&E's 2018

PA Name: Pacific Gas and Electric Company  
Budget Year: 2019

Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                              | 2018 Cycle Expenditures Spent as of 06/30/2018 | 2019 Proposed Budget               |  |                      |
|------------------------|---|--|------------------------------------|--|----------------------|
|                        |   |  | 2019 Proposed Budget [8] [13] [14] | 2019 Budget Offset from Pre-2018 Carryover | 2019 Funds Requested |
| <b>PGE2100</b>         | <b>Residential Energy Efficiency Programs Total</b>               | <b>26,871,140</b>                              | <b>\$ 53,524,054</b>               | <b>\$ -</b>                                | <b>\$ 53,524,054</b> |
| PGE21001               | Residential Energy Advisor  | 7,525,610                                      | \$ 11,963,763                      | \$ -                                       | \$ 11,963,763        |
| PGE21002               | Plug Load and Appliances  | 5,082,532                                      | \$ 7,944,928                       | \$ -                                       | \$ 7,944,928         |
| PGE21003               | Multifamily Energy Efficiency                                     | 1,431,713                                      | \$ 6,401,906                       | \$ -                                       | \$ 6,401,906         |
| PGE21004               | Energy Upgrade California   | 4,057,607                                      | \$ 8,776,578                       | \$ -                                       | \$ 8,776,578         |
| PGE21005               | Residential New Construction                                      | 3,586,716                                      | \$ 6,899,495                       | \$ -                                       | \$ 6,899,495         |
| PGE21006               | Residential HVAC  | 4,525,380                                      | \$ 3,949,103                       | \$ -                                       | \$ 3,949,103         |
| PGE210010              | Pay for Performance Pilot   | 661,582  | \$ 7,588,280                       | \$ -                                       | \$ 7,588,280         |
| <b>PGE2101</b>         | <b>Commercial Programs Total</b>                                  | <b>22,104,857</b>                              | <b>\$ 39,389,691</b>               | <b>\$ -</b>                                | <b>\$ 39,389,691</b> |
| PGE21011               | Commercial Calculated Incentives                                  | 5,532,395                                      | \$ 8,524,651                       | \$ -                                       | \$ 8,524,651         |
| PGE211025              | Savings by Design (SBD)   | 1,258,317                                      | \$ 3,194,769                       | \$ -                                       | \$ 3,194,769         |
| PGE21012               | Commercial Deemed Incentives                                      | 8,567,643                                      | \$ 14,077,205                      | \$ -                                       | \$ 14,077,205        |
| PGE21013               | Commercial Continuous Energy Improvement                          | 35,853   | \$ -                               | \$ -                                       | \$ -                 |
| PGE21014               | Commercial Energy Advisor   | 863,959  | \$ 571,747                         | \$ -                                       | \$ 571,747           |
| PGE21015               | Commercial HVAC   | 5,846,690                                      | \$ 13,021,318                      | \$ -                                       | \$ 13,021,318        |
| <b>PGE2103</b>         | <b>Agricultural Programs Total</b>                                | <b>3,858,088</b>                               | <b>\$ 8,503,194</b>                | <b>\$ -</b>                                | <b>\$ 8,503,194</b>  |
| PGE21031               | Agricultural Calculated Incentives                                | 1,198,676                                      | \$ 2,342,560                       | \$ -                                       | \$ 2,342,560         |
| PGE21032               | Agricultural Deemed Incentives                                    | 1,702,974                                      | \$ 3,296,832                       | \$ -                                       | \$ 3,296,832         |
| PGE21033               | Agricultural Continuous Energy Improvement                        | 1,569  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21034               | Agricultural Energy Advisor                                       | 954,869  | \$ 2,863,802                       | \$ -                                       | \$ 2,863,802         |
| <b>PGE2102</b>         | <b>Industrial Programs Total</b>                                  | <b>2,919,396</b>                               | <b>\$ 7,902,256</b>                | <b>\$ -</b>                                | <b>\$ 7,902,256</b>  |
| PGE21021               | Industrial Calculated Incentives                                  | 2,017,750                                      | \$ 5,369,917                       | \$ -                                       | \$ 5,369,917         |
| PGE21022               | Industrial Deemed Incentives                                      | 600,139  | \$ 243,822                         | \$ -                                       | \$ 243,822           |
| PGE21023               | Industrial Continuous Energy Improvement                          | 3,976  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21024               | Industrial Energy Advisor   | 88,944   | \$ 67,359                          | \$ -                                       | \$ 67,359            |
| PGE21030               | Industrial Strategic Energy Management                            | 208,588  | \$ 2,221,159                       | \$ -                                       | \$ 2,221,159         |
| <b>PGE2104</b>         | <b>Lighting Programs Total</b>                                    | <b>5,558,666</b>                               | <b>\$ 2,611,724</b>                | <b>\$ -</b>                                | <b>\$ 2,611,724</b>  |
| PGE21041               | Primary Lighting  | 5,275,712                                      | \$ 2,611,724                       | \$ -                                       | \$ 2,611,724         |
| PGE21042               | Lighting Innovation   | 219,814  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21043               | Lighting Market Transformation                                    | 63,140   | \$ -                               | \$ -                                       | \$ -                 |
| <b>PGE2105</b>         | <b>Codes &amp; Standards Programs Total</b>                       | <b>7,988,395</b>                               | <b>\$ 20,876,988</b>               | <b>\$ -</b>                                | <b>\$ 20,876,988</b> |
| PGE21051               | Building Codes Advocacy   | 1,719,437                                      | \$ 5,154,812                       | \$ -                                       | \$ 5,154,812         |
| PGE21052               | Appliance Standards Advocacy                                      | 2,762,893                                      | \$ 3,221,757                       | \$ -                                       | \$ 3,221,757         |
| PGE21053               | Compliance Improvement  | 1,783,399                                      | \$ 5,154,812                       | \$ -                                       | \$ 5,154,812         |
| PGE21054               | Reach Codes   | 305,795  | \$ 773,222                         | \$ -                                       | \$ 773,222           |
| PGE21055               | Planning and Coordination   | 558,501  | \$ 773,222                         | \$ -                                       | \$ 773,222           |
| PGE21056               | Code Readiness  | 858,370  | \$ 3,866,109                       | \$ -                                       | \$ 3,866,109         |
| PGE21057               | National Codes & Standards Advocacy                               | -  | \$ 1,933,054                       | \$ -                                       | \$ 1,933,054         |
| <b>PGE2106</b>         | <b>Emerging Technologies Programs Total</b>                       | <b>1,401,742</b>                               | <b>\$ 7,760,943</b>                | <b>\$ -</b>                                | <b>\$ 7,760,943</b>  |
| PGE21061               | Technology Development Support                                    | 281,509  | \$ 1,670,296                       | \$ -                                       | \$ 1,670,296         |
| PGE21062               | Technology Assessments  | 429,496  | \$ 3,991,174                       | \$ -                                       | \$ 3,991,174         |
| PGE21063               | Technology Introduction Support                                   | 690,738  | \$ 2,099,473                       | \$ -                                       | \$ 2,099,473         |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Programs Total</b>          | <b>4,193,445</b>                               | <b>\$ 9,741,738</b>                | <b>\$ -</b>                                | <b>\$ 9,741,738</b>  |
| PGE21071               | Integrated Energy Education and Training                          | 3,411,812                                      | \$ 8,508,575                       | \$ -                                       | \$ 8,508,575         |
| PGE21072               | Connections   | 696,559  | \$ 960,008                         | \$ -                                       | \$ 960,008           |
| PGE21073               | Strategic Planning  | 85,075   | \$ -                               | \$ -                                       | \$ -                 |
| PGE21076               | Career and Workforce Readiness                                    | -  | \$ 273,155                         | \$ -                                       | \$ 273,155           |
| <b>PGE2108</b>         | <b>Statewide DSM Coordination &amp; Integration Program Total</b> | <b>74,521</b>                                  | <b>\$ -</b>                        | <b>\$ -</b>                                | <b>\$ -</b>          |
| PGE21081               | Statewide DSM Coordination & Integration                          | 74,521   | \$ -                               | \$ -                                       | \$ -                 |
| <b>PGE2109</b>         | <b>Financing Programs Total</b>                                   | <b>1,640,869</b>                               | <b>\$ 6,504,117</b>                | <b>\$ -</b>                                | <b>\$ 6,504,117</b>  |
| PGE21091               | On-Bill Financing (excludes Loan Pool)                            | 1,404,918                                      | \$ 5,954,968                       | \$ -                                       | \$ 5,954,968         |
| PGE21092               | Third-Party Financing   | 223,770  | \$ 31,828                          | \$ -                                       | \$ 31,828            |
| PGE21093               | New Financing Offerings [9]                                       | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210911              | On Bill Financing Alternative Pathway                             | 12,182   | \$ 517,321                         | \$ -                                       | \$ 517,321           |
|                        | <b>Third-Party Programs (Competitively Bid) Total</b>             | <b>26,007,949</b>                              | <b>\$ 84,004,156</b>               | <b>\$ -</b>                                | <b>\$ 84,004,156</b> |
| <b>PGE2100</b>         | <b>Residential Third Party Programs SubTotal</b>                  | <b>8,098,943</b>                               | <b>\$ 32,133,298</b>               | <b>\$ -</b>                                | <b>\$ 32,133,298</b> |
| PGE21007               | California New Homes Multifamily                                  | 284,216  | \$ 2,057,859                       | \$ -                                       | \$ 2,057,859         |
| PGE21008               | Enhance Time Delay Relay  | 3,732,429                                      | \$ 8,385,536                       | \$ -                                       | \$ 8,385,536         |
| PGE21009               | Direct Install for Manufactured and Mobile Homes                  | 1,853,706                                      | \$ 6,636,917                       | \$ -                                       | \$ 6,636,917         |
| PGE210132              | RSG The Smarter Water Heater                                      | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210011              | Residential Energy Fitness Program                                | 2,228,592                                      | \$ 15,052,985                      | \$ -                                       | \$ 15,052,985        |
| <b>PGE2101</b>         | <b>Commercial Third Party Programs SubTotal</b>                   | <b>10,964,364</b>                              | <b>\$ 29,012,847</b>               | <b>\$ -</b>                                | <b>\$ 29,012,847</b> |
| PGE210110              | Monitoring-Based Persistence Commissioning                        | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210111              | LodgingSavers   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210112              | School Energy Efficiency  | 1,298,305                                      | \$ 2,790,852                       | \$ -                                       | \$ 2,790,852         |
| PGE210113              | Energy Fitness Program  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210114              | Energy Savers   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210115              | RightLights   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210116              | Small Business Commercial Comprehensive                           | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210117              | Energy-Efficient Parking Garage                                   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210118              | Retail Energy Efficiency  | -  | \$ -                               | \$ -                                       | \$ -                 |

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Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                                    | 2018 Cycle Expenditures Spent as of 06/30/2018 | 2019 Proposed Budget               |  |                      |
|------------------------|---|--|------------------------------------|--|----------------------|
|                        |   |  | 2019 Proposed Budget [8] [13] [14] | 2019 Budget Offset from Pre-2018 Carryover | 2019 Funds Requested |
| PGE210119              | LED Accelerator   | 487,816  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210120              | Monitoring-Based Commissioning  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210122              | Casino Green  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210123              | Healthcare Energy Efficiency Program                                    | 218,983  | \$ 2,330,779                       | \$ -                                       | \$ 2,330,779         |
| PGE210124              | Ozone Laundry Energy Efficiency   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210125              | California Preschool Energy Efficiency Program                          | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210126              | K-12 Private Schools and Colleges Audit Retro                           | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210127              | Innovative Designs for Energy Efficiency Approaches (IDEEA)             | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210128              | Enovity SMART   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210129              | Nexant AERCx  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210130              | CLEAResult AERCx  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210131              | PECI AERCx  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210136              | McKinstry Laboratory Fume Hoods   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210137              | Waypoint Commercial Outreach  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210138              | Data Center Air Flow and Temp Optimization                              | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210139              | SEI Energize Schools Program  | 80,555   | \$ -                               | \$ -                                       | \$ -                 |
| PGE210140              | Mazzetti Dynamic Gas Scavenging System                                  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210141              | Lincus Commercial Mid-Market Program                                    | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210143              | Hospitality Program   | 4,320,491                                      | \$ 16,021,373                      | \$ -                                       | \$ 16,021,373        |
| PGE21016               | Air Care Plus   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21017               | Boiler Energy Efficiency Program  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21018               | EnergySmart Grocer  | 4,558,214                                      | \$ 7,869,842                       | \$ -                                       | \$ 7,869,842         |
| PGE21019               | Enhanced Automation Initiative  | -  | \$ -                               | \$ -                                       | \$ -                 |
| <b>PGE2103</b>         | <b>Agricultural Third Party Programs SubTotal</b>                       | <b>2,033,530</b>                               | <b>\$ 5,974,787</b>                | <b>\$ -</b>                                | <b>\$ 5,974,787</b>  |
| PGE210310              | Dairy Industry Resource Advantage Pgm                                   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210311              | Process Wastewater Treatment EM Pgm for Ag Food Processing              | 46,210   | \$ 421,791                         | \$ -                                       | \$ 421,791           |
| PGE210312              | Dairy and Winery Industry Efficiency Solutions                          | 797,334  | \$ 2,298,225                       | \$ -                                       | \$ 2,298,225         |
| PGE210333              | Staples Low Pressure Irrigation DI                                      | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21035               | Dairy Energy Efficiency Program   | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21036               | Industrial Refrigeration Performance Plus                               | 28,022   | \$ -                               | \$ -                                       | \$ -                 |
| PGE21037               | Light Exchange Program  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21038               | Wine Industry Efficiency Solutions                                      | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21039               | Comprehensive Food Process Audit & Resource Efficiency Pgm              | 1,161,963                                      | \$ 3,254,771                       | \$ -                                       | \$ 3,254,771         |
| <b>PGE2102</b>         | <b>Industrial Third Party Programs SubTotal</b>                         | <b>4,911,112</b>                               | <b>\$ 16,883,225</b>               | <b>\$ -</b>                                | <b>\$ 16,883,225</b> |
| PGE210210              | Industrial Recommissioning Program                                      | 288,649  | \$ 2,873,214                       | \$ -                                       | \$ 2,873,214         |
| PGE210211              | Light Industrial Energy Efficiency                                      | 26,138   | \$ -                               | \$ -                                       | \$ -                 |
| PGE210212              | Industrial Compressed Air System Efficiency                             | 55,778   | \$ 518,911                         | \$ -                                       | \$ 518,911           |
| PGE210213              | Small Petrochemical Energy Efficiency                                   | 105,743  | \$ 516,403                         | \$ -                                       | \$ 516,403           |
| PGE21025               | California Wastewater Process Optimization                              | 160,649  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21026               | Energy Efficiency Services for Oil Production                           | 599,878  | \$ 1,868,192                       | \$ -                                       | \$ 1,868,192         |
| PGE21027               | Heavy Industry Energy Efficiency Program                                | 2,254,989                                      | \$ 8,719,340                       | \$ -                                       | \$ 8,719,340         |
| PGE21028               | Industrial Compressed Air Program                                       | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21029               | Refinery Energy Efficiency Program                                      | 26,547   | \$ -                               | \$ -                                       | \$ -                 |
| PGE210135              | Lincus WISE   | 1,392,741                                      | \$ 2,387,165                       | \$ -                                       | \$ 2,387,165         |
| PGE210142              | Ameresco Intelligent Energy Efficiency                                  | -  | \$ -                               | \$ -                                       | \$ -                 |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Third Party Programs SubTotal</b> | <b>-</b>                                       | <b>\$ -</b>                        | <b>\$ -</b>                                | <b>\$ -</b>          |
| PGE21074               | Builder Energy Code Training  | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE21075               | Green Building Technical Support Services                               | -  | \$ -                               | \$ -                                       | \$ -                 |
| PGE210134              | Bridges to Energy Sector Opportunities                                  | -  | \$ -                               | \$ -                                       | \$ -                 |
| <b>PGE2110</b>         | <b>Government Partnership Programs Total</b>                            | <b>24,068,230</b>                              | <b>\$ 40,669,461</b>               | <b>\$ -</b>                                | <b>\$ 40,669,461</b> |
| PGE2110011             | California Community Colleges   | 1,129,003                                      | \$ 1,113,531                       | \$ -                                       | \$ 1,113,531         |
| PGE2110012             | University of California/California State University                    | 365,128  | \$ 937,464                         | \$ -                                       | \$ 937,464           |
| PGE2110013             | State of California   | 163,399  | \$ 931,841                         | \$ -                                       | \$ 931,841           |
| PGE2110014             | Department of Corrections and Rehabilitation                            | 357,191  | \$ 1,086,976                       | \$ -                                       | \$ 1,086,976         |
| PGE2110051             | Local Government Energy Action Resources (LGEAR)                        | 1,301,747                                      | \$ -                               | \$ -                                       | \$ -                 |
| PGE2110052             | Strategic Energy Resources  | 3,040,169                                      | \$ 5,554,039                       | \$ -                                       | \$ 5,554,039         |
| PGE211007              | Association of Monterey Bay Area Governments (AMBAG)                    | 1,743,214                                      | \$ 3,576,277                       | \$ -                                       | \$ 3,576,277         |
| PGE211009              | East Bay  | 2,445,847                                      | \$ 3,189,040                       | \$ -                                       | \$ 3,189,040         |
| PGE211010              | Fresno  | 1,404,416                                      | \$ 2,759,465                       | \$ -                                       | \$ 2,759,465         |
| PGE211011              | Kern  | 1,356,423                                      | \$ 2,324,632                       | \$ -                                       | \$ 2,324,632         |
| PGE211012              | Madera  | 200,166  | \$ 299,630                         | \$ -                                       | \$ 299,630           |
| PGE211013              | Marin County  | 320,549  | \$ 868,459                         | \$ -                                       | \$ 868,459           |
| PGE211014              | Mendocino/Lake County   | 313,301  | \$ 537,440                         | \$ -                                       | \$ 537,440           |
| PGE211015              | Napa County   | 228,612  | \$ 356,669                         | \$ -                                       | \$ 356,669           |
| PGE211016              | Redwood Coast   | 639,237  | \$ 1,226,970                       | \$ -                                       | \$ 1,226,970         |
| PGE211018              | San Luis Obispo County  | 478,963  | \$ 990,181                         | \$ -                                       | \$ 990,181           |
| PGE211019              | San Mateo County  | 570,390  | \$ 1,073,415                       | \$ -                                       | \$ 1,073,415         |

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Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name  | 2018 Cycle Expenditures Spent as of 06/30/2018 | 2019 Proposed Budget               |  |                       |
|------------------------|---|--|------------------------------------|--|-----------------------|
|                        |   |  | 2019 Proposed Budget [8] [13] [14] | 2019 Budget Offset from Pre-2018 Carryover | 2019 Funds Requested  |
| PGE211020              | Santa Barbara   | 253,274  | \$ 606,943                         | \$ -                                       | \$ 606,943            |
| PGE211021              | Sierra Nevada   | 553,738  | \$ 944,354                         | \$ -                                       | \$ 944,354            |
| PGE211022              | Sonoma County   | 1,443,536                                      | \$ 1,632,927                       | \$ -                                       | \$ 1,632,927          |
| PGE211023              | Silicon Valley  | 1,688,589                                      | \$ 3,107,863                       | \$ -                                       | \$ 3,107,863          |
| PGE211024              | San Francisco   | 2,166,050                                      | \$ 3,783,713                       | \$ -                                       | \$ 3,783,713          |
| PGE211026              | North Valley  | 228,367  | \$ 466,473                         | \$ -                                       | \$ 466,473            |
| PGE211027              | Sutter Buttes   | 154,069  | \$ 155,120                         | \$ -                                       | \$ 155,120            |
| PGE211028              | Yolo  | 56,332   | \$ 460,953                         | \$ -                                       | \$ 460,953            |
| PGE211029              | Solano  | 689,792  | \$ 1,136,345                       | \$ -                                       | \$ 1,136,345          |
| PGE211030              | Northern San Joaquin Valley   | 613,602  | \$ 982,143                         | \$ -                                       | \$ 982,143            |
| PGE211031              | Valley Innovative Energy Watch (VIEW)   | 163,127  | \$ 566,596                         | \$ -                                       | \$ 566,596            |
|                        | Funds to be returned in rates [4]   | -  | \$ -                               | \$ 104,563,269                             | \$ (104,563,269)      |
|                        | 2013-2015 funds transferred to REN and CCA balancing accounts for 2016 [6]          | -  | \$ -                               | \$ -                                       | \$ -                  |
|                        | Pre-2013 Unspent Funds transferred to 2016 Commercial Deemed Incentives program [3] | -  | \$ -                               | \$ -                                       | \$ -                  |
|                        | <b>PG&amp;E PROGRAM TOTAL</b>   | <b>126,687,297</b>                             | <b>\$ 281,488,322</b>              | <b>\$ 104,563,269</b>                      | <b>\$ 176,925,053</b> |
| <b>EM&amp;V</b>        | <b>EM&amp;V (PA &amp; CPUC Portions) Total</b>                                      | <b>\$ 2,056,610</b>                            | <b>\$ 13,727,879</b>               | <b>\$ -</b>                                | <b>\$ 13,727,879</b>  |
| PGE_EMV                | PG&E EM&V - CPUC  | 278,086  | \$ 8,235,091                       | \$ -                                       | \$ 8,235,091          |
| PGE_EMV                | PG&E EM&V - PG&E  | 1,568,900                                      | \$ 4,056,089                       | \$ -                                       | \$ 4,056,089          |
| PGE_EMV                | BayREN EM&V - CPUC  | 209,625  | \$ 711,618                         | \$ -                                       | \$ 711,618            |
| PGE_EMV                | BayREN EM&V   | -  | \$ 269,924                         | \$ -                                       | \$ 269,924            |
| PGE_EMV                | MCE EM&V - CPUC   | -  | \$ 205,100                         | \$ -                                       | \$ 205,100            |
| PGE_EMV                | MCE EM&V  | -  | \$ 136,733                         | \$ -                                       | \$ 136,733            |
| PGE_EMV                | 3C REN EM&V - CPUC  | -  | \$ 82,160                          | \$ -                                       | \$ 82,160             |
| PGE_EMV                | 3C REN EM&V   | -  | \$ 31,164                          | \$ -                                       | \$ 31,164             |
|                        | <b>PG&amp;E TOTAL with EM&amp;V</b>   | <b>128,743,907</b>                             | <b>\$ 295,216,201</b>              | <b>\$ 104,563,269</b>                      | <b>\$ 190,652,932</b> |
| PGE_BayREN             | BayREN [10]   | 5,116,334                                      | \$ 23,557,000                      | \$ -                                       | \$ 23,557,000         |
| PGE_MCE                | Marin Clean Energy [10]   | 559,532  | \$ 8,204,000                       | \$ 499,483                                 | \$ 7,704,517          |
| PGE_3C REN             | 3C REN [10]   | -  | \$ 2,719,766                       | \$ -                                       | \$ 2,719,766          |
|                        | <b>TOTAL PG&amp;E EE EXPENSE PORTFOLIO</b>  | <b>\$ 134,419,773</b>                          | <b>\$ 329,696,967</b>              | <b>\$ 105,062,752</b>                      | <b>\$ 224,634,215</b> |
| PGE21091LP             | OBF REVOLVING LOAN POOL   | 13,577,603                                     | \$ 13,500,000                      | \$ -                                       | \$ 13,500,000         |
|                        | <b>TOTAL PG&amp;E EE PORTFOLIO</b>  | <b>147,997,376</b>                             | <b>\$ 343,196,967</b>              | <b>\$ 105,062,752</b>                      | <b>\$ 238,134,215</b> |
|                        | <b>Other EE-Related Budgets</b>   |  |                                    |  |                       |
| <b>PGE_SWMEO</b>       | <b>Statewide Marketing, Education and Outreach Program Total</b>                    | <b>3,412,261</b>                               | <b>\$ 6,840,978</b>                | <b>\$ -</b>                                | <b>\$ 6,840,978</b>   |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program (Flex Alert) [11]               | -  | \$ -                               | \$ -                                       | \$ -                  |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program [11]                            | 3,412,261                                      | \$ 6,840,978                       | \$ -                                       | \$ 6,840,978          |

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**Table 4 – Budget, Spent, Unspent, Carryover Details**

| New/Existing Program # | Main Program Name / Sub-Program Name | 2018 Cycle Expenditures Spent as of 06/30/2018 | 2019 Proposed Budget               |  |                      |
|------------------------|--------------------------------------|--|------------------------------------|--|----------------------|
|                        |                                      |  | 2019 Proposed Budget [8] [13] [14] | 2019 Budget Offset from Pre-2018 Carryover | 2019 Funds Requested |
| Notes:                 |                                      |  |                                    |  |                      |

1. "2015 Total Budget with Commitments & Fundshifts" reflects funds av
2. "2015 Total Budget Spent" includes spending in 2015 paid from the 2
3. "Requested Carry Over of pre-2013 Unspent Funds to 2016" identifies column G, PG&E was approved authorization to shift \$9.9m of pre-2013
4. The CPUC approved AL 3718-G/4852-E on July 11, 2016, authorizin and electric EE balancing accounts.
5. Commitments as of 12/31/2015 (column I), 12/31/2016 (column R), a PG&E's balancing accounts; this may include BayREN expenses or MC
6. 2013-2015 Unspent/Committed Funds, Carryover to 2016" Identifies  
 New Financing Offerings: In D. 15-06-008, the Commission ordered New financing pilot subprogram funds collected during 2013-2014 p  
 Funds Transferred to REN and CCA balancing accounts: In D.16-0 cycle unless and until modified by the Commission. The CPUC appr authorized for BayREN a one-time budget increase of \$3,700,000 tr  
 Marin Clean Energy: MCE's 2015 authorized gas budget included \$ \$382,818 of gas payments from PG&E to MCE, \$36,182 is available
7. "Pre-2016 unspent/uncommitted funds available for 2017 offset" iden funds from 2009 and 2010–2012 are represented in Column G. In 2017 that of the \$230,474, a refund should have occurred in the amount of \$3
8. "2019 Proposed Budget" reflects the budget request for 2019, which
9. Advice Letter 3589-G-C/4624-E-C, approved June 29, 2015, effective subaccounts. The \$14 million referenced in cell H57 was transferred to
10. BayREN, MCE and 3C-REN figures generally represent the level of
11. Statewide ME&O budgets for 2017 through 2019 were approved in
12. The "2018 Authorized Budget" in Table 4 represents PG&E's 2018

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Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                              | Program Type       | Market Sector | Resource or Non-resource | Program Status | Utility Grouping                                  |
|------------------------|---|--------------------|---------------|--------------------------|----------------|---|
| <b>PGE2100</b>         | <b>Residential Energy Efficiency Programs Total</b>               |                    |               |                          |                |   |
| PGE21001               | Residential Energy Advisor  | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21002               | Plug Load and Appliances  | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21003               | Multifamily Energy Efficiency                                     | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21004               | Energy Upgrade California   | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21005               | Residential New Construction                                      | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21006               | Residential HVAC  | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE210010              | Pay for Performance Pilot   | Third/Local Party  | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| <b>PGE2101</b>         | <b>Commercial Programs Total</b>                                  |                    |               |                          |                |   |
| PGE21011               | Commercial Calculated Incentives                                  | IOU Core/Statewide | Commercial    | Resource                 | Existing       | Commercial Energy Efficiency Programs             |
| PGE211025              | Savings by Design (SBD)   | IOU Core/Statewide | Commercial    | Resource                 | Existing       | Commercial Energy Efficiency Programs             |
| PGE21012               | Commercial Deemed Incentives                                      | IOU Core/Statewide | Commercial    | Resource                 | Existing       | Commercial Energy Efficiency Programs             |
| PGE21013               | Commercial Continuous Energy Improvement                          | IOU Core/Statewide | Commercial    | Non-Resource             | Closed         | Commercial Energy Efficiency Programs             |
| PGE21014               | Commercial Energy Advisor   | IOU Core/Statewide | Commercial    | Resource                 | Existing       | Commercial Energy Efficiency Programs             |
| PGE21015               | Commercial HVAC   | IOU Core/Statewide | Commercial    | Resource                 | Existing       | Commercial Energy Efficiency Programs             |
| <b>PGE2103</b>         | <b>Agricultural Programs Total</b>                                |                    |               |                          |                |   |
| PGE21031               | Agricultural Calculated Incentives                                | IOU Core/Statewide | Agricultural  | Resource                 | Existing       | Agricultural Energy Efficiency Programs           |
| PGE21032               | Agricultural Deemed Incentives                                    | IOU Core/Statewide | Agricultural  | Resource                 | Existing       | Agricultural Energy Efficiency Programs           |
| PGE21033               | Agricultural Continuous Energy Improvement                        | IOU Core/Statewide | Agricultural  | Non-Resource             | Closed         | Agricultural Energy Efficiency Programs           |
| PGE21034               | Agricultural Energy Advisor                                       | IOU Core/Statewide | Agricultural  | Resource                 | Existing       | Agricultural Energy Efficiency Programs           |
| <b>PGE2102</b>         | <b>Industrial Programs Total</b>                                  |                    |               |                          |                |   |
| PGE21021               | Industrial Calculated Incentives                                  | IOU Core/Statewide | Industrial    | Resource                 | Existing       | Industrial Energy Efficiency Programs             |
| PGE21022               | Industrial Deemed Incentives                                      | IOU Core/Statewide | Industrial    | Resource                 | Existing       | Industrial Energy Efficiency Programs             |
| PGE21023               | Industrial Continuous Energy Improvement                          | IOU Core/Statewide | Industrial    | Non-Resource             | Closed         | Industrial Energy Efficiency Programs             |
| PGE21024               | Industrial Energy Advisor   | IOU Core/Statewide | Industrial    | Resource                 | Existing       | Industrial Energy Efficiency Programs             |
| PGE21030               | Industrial Strategic Energy Management                            | Third/Local Party  | Industrial    | Resource                 | Existing       | Industrial Energy Efficiency Programs             |
| <b>PGE2104</b>         | <b>Lighting Programs Total</b>                                    |                    |               |                          |                |   |
| PGE21041               | Primary Lighting  | IOU Core/Statewide | Residential   | Resource                 | Existing       | Residential Energy Efficiency Programs            |
| PGE21042               | Lighting Innovation   | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Closed         | Commercial Energy Efficiency Programs             |
| PGE21043               | Lighting Market Transformation                                    | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Closed         | Commercial Energy Efficiency Programs             |
| <b>PGE2105</b>         | <b>Codes &amp; Standards Programs Total</b>                       |                    |               |                          |                |   |
| PGE21051               | Building Codes Advocacy   | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Codes and Standards Programs                      |
| PGE21052               | Appliance Standards Advocacy                                      | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Codes and Standards Programs                      |
| PGE21053               | Compliance Improvement  | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Codes and Standards Programs                      |
| PGE21054               | Reach Codes   | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Codes and Standards Programs                      |
| PGE21055               | Planning and Coordination   | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Codes and Standards Programs                      |
| PGE21056               | Code Readiness  | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Codes and Standards Programs                      |
| PGE21057               | National Codes & Standards Advocacy                               | IOU Core/Statewide | Cross-Cutting | Non-Resource             | New            | Codes and Standards Programs                      |
| <b>PGE2106</b>         | <b>Emerging Technologies Programs Total</b>                       |                    |               |                          |                |   |
| PGE21061               | Technology Development Support                                    | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Emerging Technologies Programs                    |
| PGE21062               | Technology Assessments  | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Emerging Technologies Programs                    |
| PGE21063               | Technology Introduction Support                                   | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Emerging Technologies Programs                    |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Programs Total</b>          |                    |               |                          |                |   |
| PGE21071               | Integrated Energy Education and Training                          | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Workforce Education & Training Programs           |
| PGE21072               | Connections   | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Existing       | Workforce Education & Training Programs           |
| PGE21073               | Strategic Planning  | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Closed         | Workforce Education & Training Programs           |
| PGE21076               | Career and Workforce Readiness                                    | IOU Core/Statewide | Cross-Cutting | Non-Resource             | New            | Workforce Education & Training Programs           |
| <b>PGE2108</b>         | <b>Statewide DSM Coordination &amp; Integration Program Total</b> |                    |               |                          |                |   |
| PGE21081               | Statewide DSM Coordination & Integration                          | IOU Core/Statewide | Cross-Cutting | Non-Resource             | Closed         | Statewide DSM Coordination & Integration Programs |
| <b>PGE2109</b>         | <b>Financing Programs Total</b>                                   |                    |               |                          |                |   |
| PGE21091               | On-Bill Financing (excludes Loan Pool)                            | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Financing Programs                                |
| PGE21092               | Third-Party Financing   | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Financing Programs                                |
| PGE21093               | New Financing Offerings [9]                                       | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Financing Programs                                |
| PGE210911              | On Bill Financing Alternative Pathway                             | IOU Core/Statewide | Cross-Cutting | Resource                 | Existing       | Financing Programs                                |
|                        | <b>Third-Party Programs (Competitively Bid) Total</b>             |                    |               |                          |                |   |
| <b>PGE2100</b>         | <b>Residential Third Party Programs SubTotal</b>                  |                    |               |                          |                |   |
| PGE21007               | California New Homes Multifamily                                  | Third/Local Party  | Residential   | Resource                 | Existing       | Residential Third Party Programs                  |
| PGE21008               | Enhance Time Delay Relay  | Third/Local Party  | Residential   | Resource                 | Existing       | Residential Third Party Programs                  |
| PGE21009               | Direct Install for Manufactured and Mobile Homes                  | Third/Local Party  | Residential   | Resource                 | Existing       | Residential Third Party Programs                  |
| PGE210132              | RSG The Smarter Water Heater                                      | Third/Local Party  | Residential   | Resource                 | Closed         | Residential Third Party Programs                  |
| PGE210011              | Residential Energy Fitness Program                                | Third/Local Party  | Residential   | Resource                 | Existing       | Residential Third Party Programs                  |
| <b>PGE2101</b>         | <b>Commercial Third Party Programs SubTotal</b>                   |                    |               |                          |                |   |
| PGE210110              | Monitoring-Based Persistence Commissioning                        | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210111              | LodgingSavers   | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210112              | School Energy Efficiency  | Third/Local Party  | Commercial    | Resource                 | Existing       | Commercial Third Party Programs                   |
| PGE210113              | Energy Fitness Program  | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210114              | Energy Savers   | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210115              | RightLights   | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210116              | Small Business Commercial Comprehensive                           | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210117              | Energy-Efficient Parking Garage                                   | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |
| PGE210118              | Retail Energy Efficiency  | Third/Local Party  | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                   |



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Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name                                    | Program Type                    | Market Sector | Resource or Non-resource | Program Status | Utility Grouping                                    |
|------------------------|---|---------------------------------|---------------|--------------------------|----------------|---|
| PGE210119              | LED Accelerator   | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210120              | Monitoring-Based Commissioning  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210122              | Casino Green  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210123              | Healthcare Energy Efficiency Program                                    | Third/Local Party               | Commercial    | Resource                 | Existing       | Commercial Third Party Programs                     |
| PGE210124              | Ozone Laundry Energy Efficiency   | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210125              | California Preschool Energy Efficiency Program                          | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210126              | K-12 Private Schools and Colleges Audit Retro                           | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210127              | Innovative Designs for Energy Efficiency Approaches (IDEAA)             | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210128              | Enovity SMART   | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210129              | Nexant AERCx  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210130              | CLEAResult AERCx  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210131              | PECI AERCx  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210136              | McKinstry Laboratory Fume Hoods   | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210137              | Waypoint Commercial Outreach  | Third/Local Party               | Commercial    | Non-Resource             | Closed         | Commercial Third Party Programs                     |
| PGE210138              | Data Center Air Flow and Temp Optimization                              | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210139              | SEI Energize Schools Program  | Third/Local Party               | Commercial    | Non-Resource             | Closed         | Commercial Third Party Programs                     |
| PGE210140              | Mazzetti Dynamic Gas Scavenging System                                  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210141              | Lincus Commercial Mid-Market Program                                    | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE210143              | Hospitality Program   | Third/Local Party               | Commercial    | Resource                 | Existing       | Commercial Third Party Programs                     |
| PGE21016               | Air Care Plus   | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE21017               | Boiler Energy Efficiency Program  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| PGE21018               | EnergySmart Grocer  | Third/Local Party               | Commercial    | Resource                 | Existing       | Commercial Third Party Programs                     |
| PGE21019               | Enhanced Automation Initiative  | Third/Local Party               | Commercial    | Resource                 | Closed         | Commercial Third Party Programs                     |
| <b>PGE2103</b>         | <b>Agricultural Third Party Programs SubTotal</b>                       |                                 |               |                          |                |   |
| PGE210310              | Dairy Industry Resource Advantage Pgm                                   | Third/Local Party               | Agricultural  | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE210311              | Process Wastewater Treatment EM Pgm for Ag Food Processing              | Third/Local Party               | Agricultural  | Resource                 | Existing       | Agricultural Third Party Programs                   |
| PGE210312              | Dairy and Winery Industry Efficiency Solutions                          | Third/Local Party               | Agricultural  | Resource                 | Existing       | Agricultural Third Party Programs                   |
| PGE210313              | Staples Low Pressure Irrigation DI                                      | Third/Local Party               | Agricultural  | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE21035               | Dairy Energy Efficiency Program   | Third/Local Party               | Agricultural  | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE21036               | Industrial Refrigeration Performance Plus                               | Third/Local Party               | Cross-Cutting | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE21037               | Light Exchange Program  | Third/Local Party               | Agricultural  | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE21038               | Wine Industry Efficiency Solutions                                      | Third/Local Party               | Agricultural  | Resource                 | Closed         | Agricultural Third Party Programs                   |
| PGE21039               | Comprehensive Food Process Audit & Resource Efficiency Pgm              | Third/Local Party               | Agricultural  | Resource                 | Existing       | Agricultural Third Party Programs                   |
| <b>PGE2102</b>         | <b>Industrial Third Party Programs SubTotal</b>                         |                                 |               |                          |                |   |
| PGE210210              | Industrial Recommissioning Program                                      | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE210211              | Light Industrial Energy Efficiency                                      | Third/Local Party               | Industrial    | Resource                 | Closed         | Industrial Third Party Programs                     |
| PGE210212              | Industrial Compressed Air System Efficiency                             | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE210213              | Small Petrochemical Energy Efficiency                                   | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE21025               | California Wastewater Process Optimization                              | Third/Local Party               | Industrial    | Resource                 | Closed         | Industrial Third Party Programs                     |
| PGE21026               | Energy Efficiency Services for Oil Production                           | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE21027               | Heavy Industry Energy Efficiency Program                                | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE21028               | Industrial Compressed Air Program                                       | Third/Local Party               | Industrial    | Resource                 | Closed         | Industrial Third Party Programs                     |
| PGE21029               | Refinery Energy Efficiency Program                                      | Third/Local Party               | Industrial    | Resource                 | Closed         | Industrial Third Party Programs                     |
| PGE210135              | Lincus WISE   | Third/Local Party               | Industrial    | Resource                 | Existing       | Industrial Third Party Programs                     |
| PGE210142              | Ameresco Intelligent Energy Efficiency                                  | Third/Local Party               | Industrial    | Resource                 | Closed         | Industrial Third Party Programs                     |
| <b>PGE2107</b>         | <b>Workforce Education &amp; Training Third Party Programs SubTotal</b> |                                 |               |                          |                |   |
| PGE21074               | Builder Energy Code Training  | Third/Local Party               | Cross-Cutting | Non-Resource             | Closed         | Workforce Education & Training Third Party Programs |
| PGE21075               | Green Building Technical Support Services                               | Third/Local Party               | Cross-Cutting | Non-Resource             | Closed         | Workforce Education & Training Third Party Programs |
| PGE210134              | Bridges to Energy Sector Opportunities                                  | Third/Local Party               | Cross-Cutting | Non-Resource             | Closed         | Workforce Education & Training Third Party Programs |
| <b>PGE2110</b>         | <b>Government Partnership Programs Total</b>                            |                                 |               |                          |                |   |
| PGE2110011             | California Community Colleges   | State Institutional Partnership | Public        | Resource                 | Existing       | Institutional Partnerships                          |
| PGE2110012             | University of California/California State University                    | State Institutional Partnership | Public        | Resource                 | Existing       | Institutional Partnerships                          |
| PGE2110013             | State of California   | State Institutional Partnership | Public        | Resource                 | Existing       | Institutional Partnerships                          |
| PGE2110014             | Department of Corrections and Rehabilitation                            | State Institutional Partnership | Public        | Resource                 | Existing       | Institutional Partnerships                          |
| PGE2110051             | Local Government Energy Action Resources (LGEAR)                        | Local Government Partnership    | Public        | Resource                 | Closed         | Master Government Partnership                       |
| PGE2110052             | Strategic Energy Resources  | Local Government Partnership    | Public        | Non-Resource             | Existing       | Master Government Partnership                       |
| PGE211007              | Association of Monterey Bay Area Governments (AMBAG)                    | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211009              | East Bay  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211010              | Fresno  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211011              | Kern  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211012              | Madera  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211013              | Marin County  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211014              | Mendocino/Lake County   | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211015              | Napa County   | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211016              | Redwood Coast   | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211018              | San Luis Obispo County  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |
| PGE211019              | San Mateo County  | Local Government Partnership    | Public        | Resource                 | Existing       | Government Partnership Programs                     |

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Table 4 – Budget, Spent, Unspent, Carryover Details

| New/Existing Program # | Main Program Name / Sub-Program Name   | Program Type                 | Market Sector | Resource or Non-resource | Program Status | Utility Grouping                |
|------------------------|--|------------------------------|---------------|--------------------------|----------------|---------------------------------|
| PGE211020              | Santa Barbara  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211021              | Sierra Nevada  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211022              | Sonoma County  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211023              | Silicon Valley   | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211024              | San Francisco  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211026              | North Valley   | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211027              | Sutter Buttes  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211028              | Yolo   | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211029              | Solano   | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211030              | Northern San Joaquin Valley  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
| PGE211031              | Valley Innovative Energy Watch (VIEW)  | Local Government Partnership | Public        | Resource                 | Existing       | Government Partnership Programs |
|                        | <b>Funds to be returned in rates [4]</b>   |                              |               |                          |                |                                 |
|                        | <b>2013-2015 funds transferred to REN and CCA balancing accounts for 2016 [6]</b>          |                              |               |                          |                |                                 |
|                        | <b>Pre-2013 Unspent Funds transferred to 2016 Commercial Deemed Incentives program [3]</b> |                              |               |                          |                |                                 |
|                        | <b>PG&amp;E PROGRAM TOTAL</b>  |                              |               |                          |                |                                 |
| <b>EM&amp;V</b>        | <b>EM&amp;V (PA &amp; CPUC Portions) Total</b>   |                              |               |                          |                |                                 |
| PGE_EMV                | PG&E EM&V - CPUC   | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | PG&E EM&V - PG&E   | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | BayREN EM&V - CPUC   | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | BayREN EM&V  | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | MCE EM&V - CPUC  | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | MCE EM&V   | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | 3C REN EM&V - CPUC   | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
| PGE_EMV                | 3C REN EM&V  | EM&V                         | Cross Cutting | Non-Resource             | Existing       | EM&V                            |
|                        | <b>PG&amp;E TOTAL with EM&amp;V</b>  |                              |               |                          |                |                                 |
| PGE_BayREN             | <b>BayREN [10]</b>   | REN                          | Cross Cutting | Resource                 | Existing       | REN                             |
| PGE_MCE                | <b>Marin Clean Energy [10]</b>   | CCA                          | Cross Cutting | Resource                 | Existing       | CCA                             |
| PGE_3C REN             | <b>3C REN [10]</b>   | REN                          | Cross Cutting | Resource                 | New            | REN                             |
|                        | <b>TOTAL PG&amp;E EE EXPENSE PORTFOLIO</b>   |                              |               |                          |                |                                 |
| PGE21091LP             | OBF REVOLVING LOAN POOL  | IOU Core/Statewide           | Cross-Cutting | Non-Resource             | Existing       | Financing Programs              |
|                        | <b>TOTAL PG&amp;E EE PORTFOLIO</b>   |                              |               |                          |                |                                 |
|                        | <b>Other EE-Related Budgets</b>  |                              |               |                          |                |                                 |
| <b>PGE_SWMEO</b>       | <b>Statewide Marketing, Education and Outreach Program Total</b>                           |                              |               |                          |                |                                 |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program (Flex Alert) [11]                      |                              |               |                          |                |                                 |
| PGE_SWMEO              | Statewide Marketing, Education and Outreach Program [11]                                   |                              |               |                          |                |                                 |

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**Table 4 – Budget, Spent, Unspent, Carryover Details**

| New/Existing Program # | Main Program Name / Sub-Program Name | Program Type | Market Sector | Resource or Non-resource | Program Status | Utility Grouping |
|------------------------|--------------------------------------|--------------|---------------|--------------------------|----------------|------------------|
|------------------------|--------------------------------------|--------------|---------------|--------------------------|----------------|------------------|

Notes:

1. "2015 Total Budget with Commitments & Fundshifts" reflects funds av
2. "2015 Total Budget Spent" includes spending in 2015 paid from the 2
3. "Requested Carry Over of pre-2013 Unspent Funds to 2016" identifie column G, PG&E was approved authorization to shift \$9.9m of pre-2013
4. The CPUC approved AL 3718-G/4852-E on July 11, 2016, authorizin and electric EE balancing accounts.
5. Commitments as of 12/31/2015 (column I), 12/31/2016 (column R), a PG&E's balancing accounts; this may include BayREN expenses or MC
6. 2013-2015 Unspent/Committed Funds, Carryover to 2016" Identifies
  - New Financing Offerings: In D. 15-06-008, the Commission ordered New financing pilot subprogram funds collected during 2013-2014 p
  - Funds Transferred to REN and CCA balancing accounts: In D.16-0 cycle unless and until modified by the Commission. The CPUC appr authorized for BayREN a one-time budget increase of \$3,700,000 tr
  - Marin Clean Energy: MCE's 2015 authorized gas budget included \$ \$382,818 of gas payments from PG&E to MCE, \$36,182 is available
7. "Pre-2016 unspent/uncommitted funds available for 2017 offset" iden funds from 2009 and 2010–2012 are represented in Column G. In 2017 that of the \$230,474, a refund should have occurred in the amount of \$3
8. "2019 Proposed Budget" reflects the budget request for 2019, which
9. Advice Letter 3589-G-C/4624-E-C, approved June 29, 2015, effective subaccounts. The \$14 million referenced in cell H57 was transferred to
10. BayREN, MCE and 3C-REN figures generally represent the level of
11. Statewide ME&O budgets for 2017 through 2019 were approved in
12. The "2018 Authorized Budget" in Table 4 represents PG&E's 2018

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 Budget Year: 2019

**Table 5 - Total 2019 Requested and 2013-2018 Authorized Budgets (\$000)**

| Category (2013-18 Authorized and 2019 Request) [1] | Electric Demand Response Funds | Electric Energy Efficiency Funds | Natural Gas Public Purpose Funds | Total Energy Efficiency Funds |
|--|--------------------------------|----------------------------------|----------------------------------|-------------------------------|
| 2013-2015 Annualized Program Funds - Utility       | \$3,264                        | \$321,712                        | \$70,620                         | \$392,331                     |
| 2013-2015 Annualized Program Funds - REN           |                                | \$9,725                          | \$2,135                          | \$11,860                      |
| 2013-2015 Annualized Program Funds - MCE           |                                | \$1,431                          | \$314                            | \$1,745                       |
| 2013-2015 Annualized EM&V                          |                                | \$14,073                         | \$3,089                          | \$17,162                      |
| <b>2013-2015 Total Annualized Portfolio</b>        | <b>\$3,264</b>                 | <b>\$346,941</b>                 | <b>\$76,158</b>                  | <b>\$423,099</b>              |
| 2016 Program Funds - Utility                       | \$3,264                        | \$327,056                        | \$71,793                         | \$398,849                     |
| 2016 Program Funds - REN                           |                                | \$13,560                         | \$2,977                          | \$16,537                      |
| 2016 Program Funds - MCE                           |                                | \$1,301                          | \$286                            | \$1,586                       |
| 2016 EM&V  |                                | \$14,108                         | \$3,097                          | \$17,204                      |
| <b>2016 Annualized Total</b>                       | <b>\$3,264</b>                 | <b>\$356,025</b>                 | <b>\$78,152</b>                  | <b>\$434,177</b>              |
| 2017 Program Funds - Utility                       | \$3,264                        | \$327,271                        | \$62,337                         | \$389,609                     |
| 2017 Program Funds - REN                           |                                | \$13,891                         | \$2,646                          | \$16,537                      |
| 2017 Program Funds - MCE                           |                                | \$1,333                          | \$254                            | \$1,586                       |
| 2017 EM&V  |                                | \$14,271                         | \$2,718                          | \$16,989                      |
| <b>2017 Annualized Total</b>                       | <b>\$3,264</b>                 | <b>\$356,766</b>                 | <b>\$67,955</b>                  | <b>\$424,721</b>              |
| 2018 Program Funds - Utility                       | \$3,264                        | \$263,492                        | \$102,469                        | \$365,961                     |
| 2018 Program Funds - REN                           |                                | \$18,787                         | \$3,578                          | \$22,365                      |
| 2018 Program Funds - MCE                           |                                | \$6,891                          | \$1,313                          | \$8,204                       |
| 2018 EM&V  |                                | \$13,879                         | \$2,644                          | \$16,522                      |
| <b>2018 Annualized Total</b>                       | <b>\$3,264</b>                 | <b>\$303,048</b>                 | <b>\$110,004</b>                 | <b>\$413,052</b>              |
| 2019 Requested Program Funds - Utility             | \$7,771                        | \$221,241                        | \$73,747                         | \$294,988                     |
| 2019 Requested Program Funds - REN                 |                                | \$17,668                         | \$5,889                          | \$23,557                      |
| 2019 Requested Program Funds - MCE                 |                                | \$6,153                          | \$2,051                          | \$8,204                       |
| 2019 Requested Program Funds - 3C-REN              |                                | \$2,040                          | \$680                            | \$2,720                       |
| 2019 Requested EM&V                                |                                | \$10,296                         | \$3,432                          | \$13,728                      |
| <b>2019 Total Portfolio Request</b>                | <b>\$7,771</b>                 | <b>\$257,398</b>                 | <b>\$85,799</b>                  | <b>\$343,197</b>              |

{1} Authorized budget excludes reductions from past unspent funds, carryover and is consistent with funding approved in D. 09-09-047, D. 12-11-015, D.14-10-046, and D.15-10-028. 2018 Utility and EM&V budgets presented are from the 2018 ABAL. These budgets are also reflected in the revised CEDARS filing approved on August 3, 2018 by Energy Division, as well as in Table 4 Carryover (footnote 12). BayREN and MCE's budgets are approved in the Business Plan Decision (D.18-05-041).

**PA Name:** Pacific Gas and Electric Company  
**Budget Year:** 2019

**Table 6 - Accrued Energy Efficiency Program Funding Not Yet Spent**

| <b>Committed funds not yet spent as of June 30, 2018<br/>(\$000)</b> | <b>Electric Procurement<br/>Funds</b> | <b>Natural Gas Public<br/>Purpose Funds</b> | <b>Total</b>     |
|--|---------------------------------------|---|------------------|
| <b>Category</b>  |                                       |   |                  |
| 2013-2015 EM&V Funds   | \$3,770                               | \$827                                       | \$4,597          |
| 2013-2015 Program Funds - Utility                                    | \$3,412                               | \$749                                       | \$4,161          |
| 2013-2015 Program Funds - REN  | \$3,084                               | \$677                                       | \$3,761          |
| 2013-2015 Program Funds - CCA  | \$30                                  | \$7   | \$36             |
| 2016 EM&V Funds  | \$12,852                              | \$2,821                                     | \$15,673         |
| 2016 Program Funds - Utility   | \$0                                   | \$0   | \$0              |
| 2016 Program Funds - REN   | \$0                                   | \$0   | \$0              |
| 2016 Program Funds - CCA   | \$86                                  | \$19  | \$105            |
| 2017 EM&V Funds  | \$12,162                              | \$2,317                                     | \$14,479         |
| 2017 Program Funds - Utility [1]                                     | \$9,767                               | \$1,860                                     | \$11,627         |
| 2017 Program Funds - REN   | \$36                                  | \$7   | \$43             |
| 2017 Program Funds - CCA   | \$0                                   | \$0   | \$0              |
| 2018 to date EM&V Funds  | \$11,715                              | \$2,232                                     | \$13,947         |
| 2018 to date Program Funds - Utility [2]                             | \$41,116                              | \$7,832                                     | \$48,948         |
| 2018 to date Program Funds - REN                                     | \$9,593                               | \$1,827                                     | \$11,421         |
| 2018 to date Program Funds - CCA                                     | \$146                                 | \$28  | \$174            |
| <b>Total</b>   | <b>\$107,770</b>                      | <b>\$21,202</b>                             | <b>\$128,972</b> |

[1] Represents funds committed for possible contingencies, that may be refunded in future periods.

[2] Represents incentive commitments as of June 30, 2018.

**PA Name:** Pacific Gas and Electric Company

**Budget Year:** 2019

**Table 7 - 2017 Authorized and Spent/Unspent Detail**

| <b>Authorized, spent and unspent program funds<br/>(Excludes EM&amp;V and OBF Loans)<br/>(\$000)</b> | <b>Electric<br/>Procurement<br/>Funds</b> | <b>Natural Gas<br/>Public Purpose<br/>Funds</b> | <b>Total</b> |
|--|---|---|--------------|
| <b>Category</b>  |   |   |              |
| 2017 Annualized Authorized Program Budget  | \$331,155                                 | \$63,077  | \$394,232    |
| Funds Transferred from Pre-2013 Cycles [1]   | \$18,865                                  | \$3,593   | \$22,458     |
| 2017 Actual Spent  | \$263,631                                 | \$50,215  | \$313,847    |
| 2017 Unspent   | \$86,389                                  | \$16,455  | \$102,843    |
| 2017 Committed funds [2]   | \$9,803                                   | \$1,867   | \$11,670     |
| 2017 Unspent/uncommitted - estimated available for<br>2019 [3]                                       | \$76,586                                  | \$14,588  | \$91,174     |

[1] On November 2, 2016, PG&E's request to carry over \$22.458 million of pre-2013 unspent funds to the 2016 cycle, was approved in AL 3752-G-B/4905-E-B. The funds were transferred in March 2017.

[2] Represents unspent and committed BayREN funds carry forward; and funds committed for possible contingencies that may be refunded in future periods.

[3] Excludes \$1,232,000 of interest accrued in the balancing account.

Advice 4011-G/5375-E  
September 4, 2018

## **Attachment 3**

### **Caps and Targets Table**

**PAName: Pacific Gas and Electric Company**  
**Energy Efficiency 2019**  
**2019 Proposed Budget**

| Line |   |                |                |                | Cap % | %     |
|------|---|----------------|----------------|----------------|-------|-------|
| 1    | <b>Administrative Costs</b>   | \$ 8,216,079   | \$ 15,221,002  | \$ 23,437,081  |       |       |
| 2    | IOU <sup>1</sup>  | \$ 7,081,301   | \$ 9,305,484   | \$ 16,386,785  | 5.2%  | 10.0% |
| 3    | Third Party & Partnership   | \$ -           | \$ 5,683,029   | \$ 5,683,029   | 1.8%  | 10.0% |
| 4    | Target Exempt IOU Programs <sup>2</sup>                               | \$ 1,134,778   | \$ 232,489     | \$ 1,367,267   |       |       |
| 5    | <b>Marketing and Outreach Costs <sup>3</sup></b>                      | \$ 14,113,438  | \$ 6,472,855   | \$ 20,586,292  |       |       |
| 6    | Marketing & Outreach  | \$ 8,961,066   | \$ 6,472,855   | \$ 15,433,920  | 4.9%  | 6.0%  |
| 7    | Statewide Marketing & Outreach <sup>4</sup>                           | \$ 5,152,372   | \$ -           | \$ 5,152,372   |       |       |
| 8    | <b>Direct Implementation Costs</b>                                    | \$ 143,328,121 | \$ 112,789,200 | \$ 256,117,321 |       |       |
| 9    | Direct Implementation (Incentives and Rebates)                        | \$ 69,609,667  | \$ 54,401,261  | \$ 124,010,928 |       |       |
| 10   | Direct Implementation (Non Incentives and Non R                       | \$ 45,130,287  | \$ 53,168,298  | \$ 98,298,585  | 31.5% | 20.0% |
| 11   | Direct Implementation Target Exempt Programs <sup>2</sup>             | \$ 28,588,167  | \$ 5,219,641   | \$ 33,807,808  |       |       |
| 12   | <b>EM&amp;V Costs (Investor Owned Utilities &amp; Energy Division</b> | \$ 12,291,180  | \$ -           | \$ 12,291,180  | 4.0%  | 4.0%  |
| 13   | <b>Total <sup>7</sup></b>   | \$ 177,948,817 | \$ 134,483,057 | \$ 312,431,874 |       |       |
| 14   | <b>2019 Proposed Budget <sup>8</sup></b>                              | \$ 172,796,445 | \$ 170,400,522 | \$ 343,196,967 |       |       |
| 15   | <b>Third Party Program (3P) and Statewide Competitively S</b>         | \$ 16,313,001  | \$ 85,898,631  | \$ 102,211,633 | 33.3% |       |

Notes:

- 10% cap requirement based on D. 09-09-047 is set for IOU only.
- Target Exempt Programs are Non-Resource Programs which include: Emerging Technologies, Workforce Education & Training, Strategic Energy Resources (SER) program, and Codes & Standards programs (excluding Building Codes Advocacy and Appliance Standards Advocacy).
- Statewide Marketing & Outreach (SW ME&O) is excluded from the Marketing and Outreach cost target calculation per D.13-12-038, at p. 82.
- Statewide ME&O budget for 2019 was authorized in D.16-09-020, Advice Letter 3783-G/4963-E.  
The portion of SW ME&O allocated to EE is reflected in PG&E's cost effectiveness calculations.
- EM&V costs include only PG&E's IOU EM&V budget.
- The EM&V and Competitively Solicited Programs percentages are based on PG&E's total programs budget of \$307,279,502, which excludes SWME&O, BayREN, MCE and 3C-REN.  
This is the Total in line 13, minus SWME&O in line 7.
- As directed in the Energy Efficiency Policy Manual Version 5 July 2013, page 92, this total includes SW ME&O and excludes BayREN, MCE, and 3C-REN budgets and is the denominator used to calculate the Admin, Marketing, and Direct Implementation Non-Incentives percentages.
- PG&E's 2019 Proposed Budget of \$343,196,967 excludes SWME&O budget of \$5,152,372 and includes BayREN, MCE and 3C-REN budgets of \$24,538,542, \$8,545,833, and \$2,833,090 respectively.  
BayREN and MCE budgets are from the Business Plan Decision D.18-05-041, with EM&V increased to 4%. 3C-REN budget is the proposed contribution for PG&E as circulated by 3C-REN on August 28, 2018.



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**Attachment 4**  
**Program Closures**

**Pacific Gas and Electric Company**

**2019 Energy Efficiency Annual Budget and Advice Letter**

**List of Programs Closing for Program Year 2019**

| Resource/Non-Resource | Sector                         | EEGA Code  | Sub-Program Name                           |
|-----------------------|--------------------------------|------------|--|
| Resource              | Commercial                     | PGE210119  | LED Accelerator                            |
| Resource              | Industrial                     | PGE210211  | Light Industrial Energy Efficiency         |
| Resource              | Industrial                     | PGE21025   | California Wastewater Process Optimization |
| Resource              | Agricultural                   | PGE21036   | Industrial Refrigeration Performance Plus  |
| Resource              | Public                         | PGE2110051 | LGEAR                                      |
| Non-Resource          | Commercial                     | PGE21013   | Commercial Continuous Energy Improvement   |
| Non-Resource          | Commercial                     | PGE210139  | SEI Energize Schools Program               |
| Non-Resource          | Commercial                     | PGE21042   | Lighting Innovation                        |
| Non-Resource          | Commercial                     | PGE21043   | Lighting Market Transformation             |
| Non-Resource          | Industrial                     | PGE21023   | Industrial Continuous Energy Improvement   |
| Non-Resource          | Agricultural                   | PGE21033   | Agricultural Continuous Energy Improvement |
| Non-Resource          | Demand-Side Management         | PGE21081   | Statewide DSM Coordination & Integration   |
| Non-Resource          | Workforce Education & Training | PGE21073   | Strategic Planning                         |

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## **Attachment 5**

### **Sector Level Metrics: Progress to Date**



| Year | Project ID | Activity | Phase | Location | Category | Description | Start Date | End Date | Actual Cost   | Budget           | Variance       | Actual Revenue | Budget Revenue | Variance Revenue | Notes     |     |
|------|------------|----------|-------|----------|----------|-------------|------------|----------|---------------|------------------|----------------|----------------|----------------|------------------|-----------|-----|
| 2014 | PS&E       | ASD      | PL3   | 14       | US&C     | US&C        | 2014       | 2014     | 1,688,736.00  | N/A              | N/A            | 1,768,000.00   | 1,768,000.00   | 79,264.00        | ...       |     |
| 2014 | PS&E       | ASD      | PL3   | 14       | US&C     | US&C        | 2014       | 2014     | 1,127,220.00  | N/A              | N/A            | 1,180,000.00   | 1,180,000.00   | 52,780.00        | ...       |     |
| 2014 | PS&E       | ASD      | PL3   | 14       | US&C     | US&C        | 2014       | 2014     | 11,707,500.00 | N/A              | N/A            | 42,850,000.00  | 42,850,000.00  | 31,142,500.00    | ...       |     |
| 2014 | PS&E       | ASD      | PL3   | 14       | US&C     | US&C        | 2014       | 2014     | 10,619,100.00 | N/A              | N/A            | 36,910,000.00  | 36,910,000.00  | 26,290,900.00    | ...       |     |
| 2014 | PS&E       | ASD      | PL4   | 1C       | US&C     | US&C        | 2014       | 2014     | 686.26        | \$ 97,048,802    | 802,209.5      | 1.00           | \$ 650.00      | \$ 450.00        | \$ 200.00 | ... |
| 2014 | PS&E       | ASD      | PL4   | 1C       | US&C     | US&C        | 2014       | 2014     | 0.04          | \$ 97,048,802    | 4,36,208,764.3 | 0.01           | \$ 0.00        | \$ 0.00          | \$ 0.00   | ... |
| 2014 | PS&E       | ASD      | PL4   | 1C       | US&C     | US&C        | 2014       | 2014     | 0.15          | \$ 4,451,524.58  | 80,200.00      | 0.02           | \$ 0.00        | \$ 0.00          | \$ 0.00   | ... |
| 2014 | PS&E       | ASD      | PL4   | 1C       | US&C     | US&C        | 2014       | 2014     | 0.18          | \$ 9,610,726.36  | 802,209.5      | 2.00           | \$ 607.34      | \$ 607.34        | \$ 0.00   | ... |
| 2014 | PS&E       | ASD      | PL4   | 1C       | US&C     | US&C        | 2014       | 2014     | 0.27          | \$ 18,170,736.36 | 80,200.00      | 0.75           | \$ 0.75        | \$ 0.75          | \$ 0.00   | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 30,000        | N/A              | N/A            | 10,000         | 10,000         | 20,000           | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 34,210        | N/A              | N/A            | 14,710         | 14,710         | 19,500           | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 150,327,226   | N/A              | N/A            | 175,000,000    | 175,000,000    | 24,672,774       | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 142,009,079   | N/A              | N/A            | 160,000,000    | 160,000,000    | 17,990,921       | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 4,810,714     | N/A              | N/A            | 3,800,000      | 3,800,000      | 1,010,714        | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 4,316,880     | N/A              | N/A            | 3,210,000      | 3,210,000      | 1,106,880        | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 180,400       | N/A              | N/A            | 230,000        | 230,000        | 50,000           | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 130,000       | N/A              | N/A            | 150,000        | 150,000        | 20,000           | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 412,342,012   | N/A              | N/A            | 1,451,475,778  | 1,451,475,778  | 1,039,133,766    | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 310,800,000   | N/A              | N/A            | 803,910,000    | 803,910,000    | 493,110,000      | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 1,810,000     | N/A              | N/A            | 9,100,000      | 9,100,000      | 7,290,000        | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 82,746,707    | N/A              | N/A            | 6,000,000      | 6,000,000      | 76,746,707       | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 66,000        | N/A              | N/A            | 75,000         | 75,000         | 9,000            | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 1.10          | 100,100          | 10,000         | 1.00           | 1.00           | 0.00             | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 1,000         | 100,100          | 10,000         | 1,000          | 1,000          | 0.00             | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 100.10        | 7,800,100        | 10,000         | 2.00           | 1.00           | 1.00             | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 0.00             | N/A            | N/A            | N/A            | N/A              | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 70,000,000       | N/A            | N/A            | N/A            | N/A              | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 2,100,000        | N/A            | N/A            | N/A            | N/A              | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 0.00          | 0.00             | 0.00           | 0.00           | 0.00           | 0.00             | ...       |     |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 00            | 1,000,000,000    | 1,000,000,000  | 00             | 00             | 00               | 00        | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 2.20          | 4,000,000        | 1,000,000      | 2.10           | 2.0            | 2.0              | 0.10      | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 1.00             | N/A            | N/A            | N/A            | N/A              | N/A       | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 800,000          | N/A            | N/A            | N/A            | N/A              | N/A       | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | N/A           | 1,000,000        | N/A            | N/A            | N/A            | N/A              | N/A       | ... |
| 2014 | PS&E       | ASD      | ASD   | 11       | US&C     | US&C        | 2014       | 2014     | 1.00          | 0.00             | 1.00           | 1.00           | 1.00           | 0.00             | ...       |     |















| Year | Program | Activity | Location | Category | Priority   | Measure  | Baseline  | Target   | 2016             | 2017      | 2018           | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | Notes  |   |  |
|------|---------|----------|----------|----------|------------|--|-----------|--|------------------|-----------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|---|--|
| 25   | PG&E    | A09      | A0       | Energy   | Efficient  | AG - Reduction of energy efficiency programs in the High-Cost Region | Metric    | Percent of high-cost region in high-potential for wind, solar and geothermal | Aggregated       | 0.72%     | 0%             | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | 0.2%      | Baseline: Number of high-cost region in high-potential for wind, solar and geothermal. Target: 0.72% by 2030. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |   |  |
| 26   | PG&E    | A09      | A4       | IC       | SAW        | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 175.04 | \$ 163,088,789 | 180,261   | \$ 176.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04 | \$ 175.04  | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 27   | PG&E    | A09      | A4       | IC       | EMWh       | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 0.044  | \$ 1,210,789   | 480,720   | \$ 0.043  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044  | \$ 0.044   | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 28   | PG&E    | A09      | A4       | IC       | EMWh       | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 0.31   | \$ 2,208,443   | 7,043,911 | \$ 0.31   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32   | \$ 0.32  | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 29   | PG&E    | A09      | A4       | IC       | SAW        | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 0.0926 | \$ 4,471,718   | 130,261   | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926 | \$ 0.0926  | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 30   | PG&E    | A09      | A4       | IC       | EMWh       | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 0.046  | \$ 4,471,718   | 480,720   | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046  | \$ 0.046   | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 31   | PG&E    | A09      | A4       | IC       | EMWh       | Cost per unit saved  | Metric    | Levelized cost of energy efficiency per kWh, based on 100-year life cycle    | Aggregated       | \$ 0.44   | \$ 4,442,075   | 7,043,911 | \$ 0.70   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68   | \$ 0.68  | Note: per kWh per year per year. Note: High-cost region is defined as areas with a high potential for wind, solar and geothermal. |  |
| 32   | SR      | A10      | CS1      | 11       | Net GHG    | CO2 string savings   | Metric    | Net string savings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 1,889     | 1,919     | 1,947     | 1,977     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999  | Note: Net string savings (MWh) based on 100-year life cycle.  |  |
| 33   | SR      | A10      | CS1      | 11       | Net GHG    | CO2 string savings   | Metric    | Net string savings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 1,889     | 1,919     | 1,947     | 1,977     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999  | Note: Net string savings (MWh) based on 100-year life cycle.  |  |
| 34   | SR      | A10      | CS1      | 11       | Net GHG    | CO2 string savings   | Metric    | Net string savings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 1,889     | 1,919     | 1,947     | 1,977     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999     | 1,999  | Note: Net string savings (MWh) based on 100-year life cycle.  |  |
| 35   | SR      | A10      | CS1      | 1        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 11        | N/A       | N/A       | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12   | 12  | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 36   | SR      | A10      | CS2      | 2        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 11        | N/A       | N/A       | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 37   | SR      | A10      | CS1      | 1        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 11        | N/A       | N/A       | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 38   | SR      | A10      | CS2      | 2        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 11        | N/A       | N/A       | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12        | 12   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 39   | SR      | A10      | CS4      | 1        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 22        | N/A       | N/A       | 21        | 21        | 21        | 21        | 21        | 21        | 21        | 21        | 21   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 40   | SR      | A10      | CS4      | 2        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | 100%           | N/A       | N/A       | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 41   | SR      | A10      | CS1      | 1        | Cost       | Advanced building  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 4         | N/A       | N/A       | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 3  | 3   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 42   | SR      | A11      | CS1      | 1        | Cost       | Compliance   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 138       | N/A       | N/A       | 138       | 138       | 138       | 138       | 138       | 138       | 138       | 138       | 138  | 138   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 43   | SR      | A11      | CS1      | 2        | Cost       | Compliance   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | 1,600     | N/A       | N/A       | 1,600     | 1,600     | 1,600     | 1,600     | 1,600     | 1,600     | 1,600     | 1,600     | 1,600  | 1,600   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 44   | SR      | A11      | CS2      | 3        | Cost       | Compliance   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | 20%            | N/A       | N/A       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%       | 20%  | 20%   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 45   | SR      | A11      | CS4      | 1        | Cost       | Compliance   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 46   | SR      | A11      | CS4      | 1        | Cost       | Compliance   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 47   | SR      | A11      | CS4      | 1        | Cost       | Compliance   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 48   | SR      | A11      | CS4      | 2        | Cost       | Compliance   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 49   | SR      | A11      | CS4      | 2        | Cost       | Compliance   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 50   | SR      | A11      | CS4      | 1        | Cost       | Compliance   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 51   | PG&E    | A12      | NET-1    | 1        | Cost       | Collaboration  | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | N/A       | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 52   | PG&E    | A12      | NET-1    | 1        | Cost       | Investment   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | N/A   | Note: Number of advanced buildings (MWh) based on 100-year life cycle. |
| 53   | PG&E    | A12      | NET-1    | 1        | Percentage | Investment   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | 2000      | 2.6%           | 1.038%    | 2.7%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%      | 2.6%   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 54   | PG&E    | A12      | NET-1    | 1        | Percentage | Investment   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | N/A       | N/A            | N/A       | N/A       | N/A       | 60%       | 60%       | 60%       | 60%       | 60%       | 60%       | 60%       | 60%       | 60%       | 60%  | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 55   | PG&E    | A12      | NET-1    | 1        | Percentage | Investment   | Metric    | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | N/A       | N/A            | N/A       | N/A       | N/A       | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%   | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |
| 56   | PG&E    | A12      | NET-1    | 1        | Cost       | Investment   | Indicator | Number of advanced buildings (MWh)   | CO2e & GHG (MWh) | N/A       | N/A            | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A  | Note: Number of advanced buildings (MWh) based on 100-year life cycle.  |  |



**PG&E Gas and Electric  
Advice Filing List  
General Order 96-B, Section IV**

|   |   |  |
|---|---|--|
| AT&T  | Downey & Brand  | Pioneer Community Energy                                   |
| Albion Power Company                          | Ellison Schneider & Harris LLP                            | Praxair  |
| Alcantar & Kahl LLP                           | Energy Management Service                                 | Regulatory & Cogeneration Service, Inc.                    |
| Anderson & Poole                              | Evaluation + Strategy for Social Innovation               | SCD Energy Solutions                                       |
| Atlas ReFuel                                  | GenOn Energy, Inc.  | SCE  |
| BART  | Goodin, MacBride, Squeri, Schlotz & Ritchie               | SDG&E and SoCalGas   |
| Barkovich & Yap, Inc.                         | Green Charge Networks                                     | SPURR  |
| Braun Blasing Smith Wynne P.C.                | Green Power Institute                                     | San Francisco Water Power and Sewer                        |
| CalCom Solar                                  | Hanna & Morton  | Seattle City Light   |
| California Cotton Ginners & Growers Assn      | ICF   | Sempra Utilities   |
| California Energy Commission                  | International Power Technology                            | Southern California Edison Company                         |
| California Public Utilities Commission        | Intestate Gas Services, Inc.                              | Southern California Gas Company                            |
| California State Association of Counties      | Kelly Group   | Spark Energy   |
| Calpine                                       | Ken Bohn Consulting                                       | Sun Light & Power  |
| Casner, Steve                                 | Keyes & Fox LLP   | Sunshine Design  |
| Cenergy Power                                 | Leviton Manufacturing Co., Inc.                           | Tecogen, Inc.  |
| Center for Biological Diversity               | Linde   | TerraVerde Renewable Partners                              |
| City of Palo Alto                             | Los Angeles County Integrated Waste Management Task Force | Tiger Natural Gas, Inc.                                    |
| City of San Jose                              | Los Angeles Dept of Water & Power                         | TransCanada  |
| Clean Power Research                          | MRW & Associates  | Troutman Sanders LLP                                       |
| Coast Economic Consulting                     | Manatt Phelps Phillips                                    | Utility Cost Management                                    |
| Commercial Energy                             | Marin Energy Authority                                    | Utility Power Solutions                                    |
| County of Tehama - Department of Public Works | McKenzie & Associates                                     | Utility Specialists  |
| Crossborder Energy                            | Modesto Irrigation District                               | Verizon  |
| Crown Road Energy, LLC                        | Morgan Stanley  | Water and Energy Consulting                                |
| Davis Wright Tremaine LLP                     | NLine Energy, Inc.  | Wellhead Electric Company                                  |
| Day Carter Murphy                             | NRG Solar   | Western Manufactured Housing Communities Association (WMA) |
| Dept of General Services                      | Office of Ratepayer Advocates                             | Yep Energy   |
| Don Pickett & Associates, Inc.                | OnGrid Solar  |  |
| Douglass & Liddell                            | Pacific Gas and Electric Company                          |  |