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PACIFIC GAS AND ELECTRIC COMPANY

2014 GENERAL RATE CASE

PREPARED TESTIMONY

EXHIBIT (PG&E-5)

CUSTOMER CARE



PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 10
SMARTMETER™ PROGRAM

PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 10
SMARTMETER™ PROGRAM

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PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 10
SMARTMETER™ PROGRAM

A. Introduction

Pacific Gas and Electric Company's (PG&E or the Company) SmartMeter™¹ Program is nearing the completion of the deployment of advanced metering infrastructure outlined by the California Public Utilities Commission (CPUC or Commission) in the Advanced Metering Infrastructure (AMI) Decision and the SmartMeter™ Program Upgrade (SMU) Decision.² As of September 2012, PG&E had installed over 9.4 million gas modules and electric meters under the SmartMeter™ Program, as well as the associated network equipment and Information Technology necessary to operate PG&E's SmartMeter™ system. This has been—far and away—the largest AMI deployment in North America.

Key objectives such as the ability to collect interval data, provide customers online access to their interval usage data, and integrate with PG&E's operations to drive cost efficiencies have now been, or will soon be, achieved as the last of the SmartMeter™ technology is installed at customer locations. PG&E's deployment of SmartMeter™ technology not only helps customers better manage their energy use, but also plays a foundational role in support of statewide policy by modernizing the electric grid to help incorporate more renewable resources into the energy mix, deliver cleaner energy, and realize the state's ambitious energy efficiency goals.

By 2014, PG&E expects to effectively complete deployment under its SmartMeter™ Program. PG&E therefore proposes to close the electric and gas SmartMeter™ Balancing Accounts (SBA) at the end of 2013 to reflect completion of the Program as authorized and funded by the CPUC in the AMI and SMU Decisions. The Program's ongoing benefits are reflected in savings in

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² PG&E proposed its SmartMeter™ Program (originally named the AMI Program) in Application 05-06-028, which the CPUC approved in Decision 06-07-027 (the AMI Decision). PG&E made an updated SmartMeter™ Program Upgrade proposal (the SMU) in Application 05-06-028, which the Commission approved in Decision 09-03-026 (the SMU Decision).

1 the Company's respective operational units' 2014 forecasts in this General Rate
2 Case (GRC). Ongoing operations and maintenance (O&M) expenses and new
3 business installations associated with SmartMeter™ business-as-usual activities
4 will continue to be recovered in base rates as previously approved in PG&E's
5 2011 GRC Decision. In addition, ongoing costs relating to the SmartMeter™
6 Opt-Out Program approved by the Commission in Decision 12-02-014 are
7 proposed to be recovered in base rates in this GRC, net of fees received from
8 participating customers.

9 **B. Scope and Purpose of Testimony**

10 The scope and purpose of this chapter is to address the following issues:

- 11 • SmartMeter™ deployment completion status
- 12 • Treatment of SmartMeter™-related costs and benefits in the 2014 GRC
 - 13 – PG&E's proposed closure of the SBAs, the Benefits Realization
 - 14 Mechanism, and the Meter Reading Cost Balancing Accounts
 - 15 – PG&E's 2014 GRC cost forecasts incorporate SmartMeter™ Program
 - 16 benefits forecast at Program completion
 - 17 – Recovery of ongoing operating costs
- 18 • The SmartMeter™ Opt-Out Program
- 19 • Elimination and/or replacement of SmartMeter™ reporting requirements

20 In this chapter, PG&E seeks approval of the following:

- 21 • Closure of the SBAs, including the elimination of the Benefits Realization
- 22 Mechanism
- 23 • Closure of the Meter Reading Cost Balancing Accounts
- 24 • Elimination of the SmartMeter™ Program reporting requirements

25 **C. SmartMeter™ Program Completion Status**

26 As of September 30, 2012, approximately 9,451,000 meters (approximately
27 5,207,000 electric and 4,244,000 gas) have been converted to, or replaced with,
28 SmartMeter™ technology, representing about 93 percent of the total PG&E
29 meter population. PG&E continues to deploy solid-state electric meters
30 communicating over a Radio Frequency (RF) mesh network, and gas modules
31 communicating over a separate RF network. The network equipment has been

1 effectively deployed, although there will likely be unique, individual locations
2 requiring modifications to optimize performance.³

3 By January 1, 2014, PG&E expects to have completed the SmartMeter™
4 Program deployment and delivered the benefit-generating functionality
5 described in the AMI and SMU Decisions. The majority of PG&E's meter
6 population will be upgraded to "smart" technology using PG&E's standard
7 SmartMeter™ and associated network devices. PG&E anticipates that a small
8 percentage of electric meters (estimated at up to 100,000 locations) may not
9 connect to its SmartMeter™ network through the standard mesh technology and
10 could require one or more alternative technologies to upgrade the meters to
11 "smart" functionality. In addition, PG&E has determined that certain large
12 commercial meters are better served by modified existing technology.⁴

13 **D. Treatment of SmartMeter™-Related Costs and Benefits in the 2014 GRC**

14 **1. PG&E's Proposed Closure of the SmartMeter™ Balancing Accounts, 15 the Benefits Realization Mechanism, and the Meter Reading Cost 16 Balancing Accounts**

17 Decision 06-07-027 authorized PG&E to recover two types of costs in
18 the SBAs: (1) SmartMeter™ Program deployment costs; and (2) recurring
19 costs associated with operating the SmartMeter™ system through 2010.
20 Because PG&E expects program deployment to be complete by the end of
21 2013, SmartMeter™ Program deployment costs will no longer be incurred in
22 2014. The second category of costs, recurring O&M expenses, ceased to
23 be recorded in the SBAs as of January 1, 2011. Accordingly, the SBAs will
24 no longer be needed and PG&E proposes to close the accounts on
25 December 31, 2013.⁵

26 With the closure of the SBAs, recovery of the ongoing capital-related
27 revenue requirements associated with past SmartMeter™ Program

3 Customers' opt-out or delay in accepting an electric SmartMeter™ has, in some cases, reduced connectivity (i.e., degraded the RF-network) requiring network compensation.

4 For example, customer accounts served by MV-90 meters are capable of interval data functionality, customer web presentment, and the ability to produce automated bills through either PG&E's Customer Care and Billing system or Advanced Billing System.

5 D.11-05-018, Ordering Paragraph (OP) 19, required the Commission staff to oversee an independent audit of PG&E Smart Meter-related costs, at PG&E's expense. As of October 1, 2012, Commission staff has not yet commenced this audit.

1 deployment capital costs will now occur in PG&E's GRCs. Previously,
 2 recovery of these ongoing capital-related revenue requirements occurred via
 3 the SBAs. In this 2014 GRC, the beginning-of-year 2014 plant, depreciation
 4 reserve, and rate base amounts include the amounts associated with
 5 SmartMeter™ Program deployment capital costs incurred since the
 6 Program's inception through 2011 and those forecast to be incurred in 2012
 7 and 2013. Such costs are thereby consolidated with the 2014 GRC capital
 8 request.⁶

9 In the AMI and SMU Decisions, the Commission granted PG&E a total
 10 of \$2.306 billion to deploy the SmartMeter™ Program and SmartMeter™
 11 Program Upgrade, including associated recurring O&M expenses through
 12 2010. This amount includes a \$100 million allocation for which the CPUC
 13 approved 90 percent cost recovery in Decision 06-07-027 (i.e., customer
 14 rates will cover \$90 million and shareholders will pay \$10 million). As of
 15 June 30, 2012, SmartMeter™ Program expenditures totaled approximately
 16 \$2.253 billion.⁷ PG&E projects total costs to exceed the authorized amount.
 17 Decision 06-07-027 would allow PG&E to seek recovery of excess costs.
 18 PG&E does not at this time seek to recover these additional costs.

19 In the 2011 GRC, PG&E recommended and the Commission approved
 20 continuation of the Benefits Realization Mechanism to credit
 21 SmartMeter™-related operational savings to the SBA revenue requirements
 22 through 2013.⁸ Consistent with the proposed elimination of the SBAs,
 23 PG&E also proposes elimination of the Benefits Realization Mechanism on
 24 December 31, 2013. This is appropriate because the benefits associated
 25 with the SmartMeter™ Program are directly reflected in the 2014 cost
 26 estimates in this GRC, as explained in Section D.2 below.

27 Finally, PG&E proposes elimination of the Meter Reading Cost
 28 Balancing Accounts. In approving the Benefits Realization Mechanism in
 29 the 2011 GRC, the Commission removed estimated meter reading benefits
 30 from the mechanism and established gas and electric Meter Reading Cost

6 The workpapers supporting this Chapter 10 include the SmartMeter™ Program capital expenditures for the recorded period 2007 through 2011 and forecast 2012 and 2013.

7 See PG&E's Semi-Annual SmartMeter™ Report, filed with the Commission on October 1, 2012.

8 D.11-05-018, Attachment 1, p. 1-11; PG&E Advice Letter 3210-G/3850-E.

1 Balancing Accounts for the purpose of recording meter-reading and related
2 expenses. Under the terms of PG&E's authorized 2011 GRC settlement
3 agreement, the Meter Reading Cost Balancing Accounts treatment was
4 limited to the current 2011 GRC cycle (i.e., it terminates at the end
5 of 2013.)⁹ PG&E proposes that meter reading expenses be directly
6 reflected in the 2014 cost estimates¹⁰ and revenue requirement request in
7 this GRC and that the Meter Reading Cost Balancing Accounts be closed on
8 December 31, 2013. These changes to PG&E's balancing accounts are
9 also discussed in Exhibit (PG&E-10), Chapter 9, Balancing Accounts.

10 **2. PG&E's 2014 GRC Cost Estimates Incorporate SmartMeter™ Program** 11 **Benefits Forecast at Program Completion**

12 The SmartMeter™ Program has delivered the systems, operational
13 process changes and functionality required to enable the benefits outlined in
14 the original AML and SMU applications. As described above, PG&E
15 proposes elimination of the Benefits Realization Mechanism on
16 December 31, 2013. In its place, each of the PG&E witnesses who has a
17 Major Work Category (MWC) with SmartMeter™-related benefits has
18 incorporated those estimated benefits into 2014 cost estimates. The
19 SmartMeter™ platform and functionality is now being built upon and used to
20 provide additional customer services in other proceedings, including making
21 available interval meter usage and pricing data to customers on the web;
22 developing a methodology with the California Independent System Operator
23 to make wholesale prices available to customers; making customer interval
24 usage data available to third parties at the customer's direction through the
25 utility's backhaul system; developing a pilot study to provide price
26 information to customers in real- or near-real time; implementing Home Area
27 Network (HAN) plans to make the HAN functionality and benefits generally
28 accessible to customers; and piloting Demand Response projects to enable
29 load control and other two-way communications services to customers and
30 third-parties for demand management purposes.

⁹ D.11-05-018, Attachment 1, p. 1-9, 10(a).

¹⁰ The meter reading expense forecast is included in Exhibit (PG&E-5), Chapter 5.

1 Importantly, PG&E's 2014 GRC forecasts include SmartMeter™
2 expense savings in the amount of \$182.2 million, i.e., the full annualized
3 Program savings, net of savings already returned to customers in 2011, as
4 well as \$5.8 million of capital expenditure benefit. Table 10-1 presents the
5 SmartMeter™ recorded and forecast savings/benefits for the period 2011
6 through 2014 and also provides a mapping to the 2014 GRC exhibits and
7 chapters where the forecast SmartMeter™ benefits are discussed and the
8 MWCs where the benefits are reflected.

TABLE 10-1
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ BENEFITS 2011-2014
(MILLIONS OF DOLLARS)

Line No.	Description	MWC	2014 GRC Exhibit and Chapter Reference	2011 Actual Benefit Posted	2014 Incremental Annualized Savings from 2011 Recorded Costs	Full Annualized Savings from 2008 Recorded Costs
	(a)	(b)	(c)	(d)	(e)	(f) = (d + e)
1	<u>Benefit Category - EXPENSE</u>					
2	<u>A. AMI Decision D.06-07-027</u>					
3	Meter Reading	AR	Ex 5, Ch 5	\$40.6	\$73.8	\$114.4
4	Remote Electric Shut-Off	IT, DD	Ex 5, Ch 4	4.9	5.5	10.4
5	Avoided TOU Meter Maintenance	EY	Ex 5, Ch 5	2.8	5.9	8.8
6	Cash Flow on Summary Bills	–	Ex 2, Ch 13	2.6	5.0	7.6
7	Exceptions Processing	IS	Ex 5, Ch 4	2.1	4.1	6.2
8	Avoided Dispatch, Power is On	DD	Ex 4, Ch 17	2.0	4.2	6.2
9	Significant Outage Restoration	BH	Ex 4, Ch 10	1.5	3.0	4.5
10	Lower Customer Call Volumes	DK	Ex 5, Ch 2	1.3	2.4	3.7
11	Deferred Meter Testing	EY	Ex 5, Ch 5	0.7	0.3	1.1
12	Improved TOU Rate Changes	EY	Ex 5, Ch 5	0.5	1.0	1.5
13	Momentary Outage Detection	FZ	Ex 4, Ch 14	0.3	0.4	0.7
14	Load Research Expense	EZ	Ex 5, Ch 4	0.9	1.8	2.7
15	Automated Interval Billing	IS	Ex 5, Ch 4	0.5	1.1	1.6
16	<u>B. SMU Decision D.09-03-026</u>					
17	Remote Electric Shut-Off	IT, DD	Ex 5, Ch 4	3.7	5.9	9.6
18	Improved Cash Flow	–	Ex 2, Ch 13	0.4	0.6	0.9
19	Reduced Bad Debt Expense	Acct 904	Ex 5, Ch 4	0.9	1.3	2.3
20	Total Expense Benefits			\$65.7	\$116.3	\$182.2
21	<u>Benefit Category – CAPITAL</u>					
22	Significant Outage Restoration	95	Ex 4, Ch 10			3.7
23	Electric T&D Engrg & Plng	6	Ex 4, Ch 12			0.3
24	Electric T&D Engrg & Plng	46	Ex 4, Ch 12			0.3
25	Gas T&D Savings	47	Ex 3, Ch 8			0.7
26	Load Research Savings	25	Ex 5, Ch 4			0.8
27	Total Capital Expenditure Benefits					\$5.8

Note: Table totals may vary due to rounding.

1 **3. Recovery of Ongoing Operating Costs**

2 Consistent with the approach adopted by the Commission in PG&E's
3 2011 GRC Decision, costs associated with operating and maintaining
4 SmartMeter™ infrastructure and processes and installing new meters on an
5 on-going basis are now recovered through GRCs. These functions are now
6 performed as part of normal utility business. Accordingly, in this 2014 GRC,

1 the capital costs of installing SmartMeter™ devices to serve new business
 2 and the expenses for ongoing SmartMeter™ operations (such as monitoring
 3 the SmartMeter™ network) are included in the cost forecasts in the
 4 appropriate exhibits and chapters.

5 **E. SmartMeter™ Opt-Out Program**

6 On February 1, 2012, the Commission issued Decision 12-02-014,
 7 approving PG&E's request to allow residential customers who do not want a
 8 SmartMeter™ to choose to opt-out of the SmartMeter™ Program.¹¹ Under the
 9 SmartMeter™ Opt-Out Program, customers may receive service using an
 10 analog meter(s), either receiving an analog meter to replace the installed
 11 SmartMeter™ or retaining the analog meter at their premises.¹² PG&E
 12 launched the SmartMeter™ Opt-Out Program on February 1, 2012, and on
 13 February 2, 2012, began changing out SmartMeters™ to meet the requests of
 14 those customers who elected not to have a SmartMeter™. As of October 1,
 15 2012, approximately 31,500 customers have asked to opt-out of the
 16 SmartMeter™ Program.

17 Decision 12-02-014 also ordered a Phase 2 in PG&E's Opt-Out proceeding
 18 to consider cost recovery and other issues.¹³ PG&E has been tracking
 19 SmartMeter™ Opt-Out Program costs and revenues in the SmartMeter™
 20 Opt-Out Memorandum Accounts (SOMA-E and SOMA-G) per the direction of
 21 the Commission in Decision 12-02-014 and expects to recover Program costs
 22 incurred in 2012 and 2013 pursuant to a decision in the Phase 2 Opt-Out
 23 proceeding. Hence, only the ongoing costs for operating the SmartMeter™
 24 Opt-Out Program in the 2014 GRC test period are requested in this GRC, net of
 25 revenues received from participating customers.

26 The categories of ongoing SmartMeter™ Opt-Out Program costs and
 27 revenues included in this 2014 GRC are shown in Table 10-2, which provides a

11 PG&E filed its request for the SmartMeter™ Opt-Out Program in A.11-03-014.

12 For the great majority of customers, the meters received under the SmartMeter™ Opt-Out Program will be analog meters. For a very small number of residential electric customers that require special meters, these meters will be non-communicating solid-state digital meters.

13 In an April 24, 2012 Ruling, the Commission consolidated PG&E's Phase 2 Opt-Out proceeding with SCE's and SDG&E's opt-out proceedings.

1 mapping to the 2014 GRC exhibits and chapters where the forecast Program
2 costs are discussed.

TABLE 10-2
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ OPT-OUT PROGRAM
COSTS AND REVENUES IN THE 2014 GRC
(THOUSANDS OF DOLLARS)

Line No.	Description	MWC	2014 GRC Exhibit and Chapter Reference	2014 GRC Cost Request
1	<u>Expenses</u>			
2	Meter Reading	AR	Ex 5, Ch 5	\$27,933
3	Billing Operations	IS	Ex 5, Ch 4	792
4	Network Monitoring	JV	Ex 7, Ch 8	270
5	Field Collection Activities	IT	Ex 5, Ch 4	<u>2,118</u>
6	Total Expenses			\$31,113
7	<u>Capital</u>			
8	Analog Electric Meter Installations	25	Ex 5, Ch 5	\$5
9	Analog Gas Meter Installations	74	Ex 5, Ch 5	4
10	Compensating Mesh Network Device Installations	2F	Ex 7, Ch 8	<u>36</u>
11	Total Capital Expenditures			\$45
12	<u>Revenues From Customer Charges</u>			
13	Electric Revenues	N/A	Ex 2, Ch 18	\$11,392
14	Gas Revenues	N/A	Ex 2, Ch 18	<u>9,321</u>
15	Total Revenues			\$20,713

3 The estimated SmartMeter™ Opt-Out Program participation rate as of
4 January 1, 2014, that underlies the cost estimates shown in Table 10-2 is
5 approximately 200,600 customers. This estimate was derived based on a
6 trajectory from the number of customers who had elected to opt-out by May
7 2012 when PG&E prepared the analysis for the 2014 GRC Notice of Intent
8 (NOI).¹⁴ Subsequent to PG&E's 2014 GRC NOI submission, PG&E submitted
9 SmartMeter™ Opt-Out Program Testimony in Phase 2 of the SmartMeter™ Opt-
10 Out proceeding. The estimated participation rate included in PG&E's Phase 2
11 Testimony is 54,000 customers based on updated participant data as of June
12 30, 2012, as well as various other factors including the assumption that the Opt-
13 Out Program eligibility and fee structure ordered in Phase 1 will remain

¹⁴ The number of customers electing to opt-out as of the date the analysis was prepared for this 2014 GRC NOI—i.e., May 3, 2012—was approximately 25,400.

1 unchanged.¹⁵ However, these foundational program elements are being
2 revisited in Phase 2 of the Opt-Out proceeding, and the outcome of that parallel
3 proceeding (e.g., whether community opt-out will be permitted and whether
4 current Opt-Out Program fees will be modified) will directly impact the
5 SmartMeter™ Opt-Out Program participation rate.

6 Given the current uncertainty associated with issues being litigated in Phase
7 2 of the Opt-Out proceeding, the actual future Opt-Out Program customer
8 participation rate is uncertain. PG&E's estimated 200,600 customer participation
9 rate reflects the uncertainty surrounding Phase 2. To the extent that the trend
10 of actual opt-out participation or the Commission's rulings and decisions in the
11 Phase 2 proceeding provide guidance or minimize the uncertainty regarding
12 PG&E's SmartMeter™ Opt-Out Program participation rate, PG&E may update
13 its estimated participation rate and related costs presented in its 2014 GRC.
14

15 **F. SmartMeter™ Reporting Requirements**

16 The AMI and SMU Decisions established certain reporting requirements
17 regarding PG&E's SmartMeter™ Program. Given that the SmartMeter™
18 Program has transitioned to normal operations and PG&E estimates that full
19 deployment of SmartMeters™ will be completed prior to 2014, PG&E requests
20 that the deployment-focused reporting requirements shown in Table 10-3 be
21 discontinued.¹⁶ As PG&E, Southern California Edison Company and San Diego
22 Gas and Electric Company complete their smart meter deployments, the
23 Commission has shifted the reporting focus to a new set of shared metrics
24 adopted in Decision 12-04-025 that assess the utilities' Smart Grid deployments.

¹⁵ On August 10, 2012, PG&E submitted Prepared Testimony in Phase 2 of the Opt-Out proceeding. The assumptions and methodology used to derive the 54,000 estimated participation rate in that proceeding is described at A.11-03-014, SmartMeter™ Opt-Out Program Phase 2 Prepared Testimony, pp.1-4 to 1-6.

¹⁶ PG&E's request to discontinue the deployment-related reporting requirements does not extend to the Load Impact Evaluation Report, required by OP 5 of Decision 06-07-027, or the PG&E SmartMeter™ Program Enabled Demand Response and Energy Conservation Annual Report, required by OP 10 of D.09-03-026.

**TABLE 10-3
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ REGULATORY REPORTING REQUIREMENTS**

Requirement Name	CPUC Directive	Requirement Description	Report Frequency
Monthly SmartMeter™ Steering Committee Report	D.06-07-027 O.P.4	PG&E shall provide DRA and the Energy Division with a summary report of the following information as provided to PG&E's Executive Steering Committee: 1) Project status, 2) Progress against baseline schedule including equipment installation and key milestones; 3) Actual project spending vs. forecast; and 4) Risk-based contingency allowance draw-down status.	Monthly
Semi-Annual SmartMeter™ Report	D.06-07-027 O.P.16	PG&E shall provide the Chief Administrative Law Judge, Energy Division, DRA and all other parties in this proceeding a semi-annual report assessing AMI deployment as set forth herein, beginning six months after the effective date of this decision.	Semi-Annually
Annual AMI Workshop	D.06-07-027 O.P.17	PG&E shall conduct an annual workshop in conjunction with the California Energy Commission as described herein. (Annual workshop to provide the vendor and intervenor community an opportunity to observe and comment on PG&E's AMI assessment.)	Annually
Quarterly SmartMeter™ Report	D.09-03-026 O.P.7	PG&E shall provide quarterly reports on the implementation progress of the SmartMeter Upgrade to the Commission's Energy Division. PG&E shall consult with the Energy Division to determine what information and to coordinate reporting requirements ordered in D.06-0--027.	Quarterly
Quarterly SmartMeter™ Water Report	D.09-03-026 O.P.11	PG&E shall work with the water utilities in its service territory through either workshops or direct dialogue and report back to the Commission on the status of its efforts and results of its discussion on a quarterly basis beginning April 11, 2009.	Quarterly

1 **G. Conclusion**

2 PG&E has been an industry pioneer in SmartMeter™ deployment. PG&E is
3 in the completion phase of its SmartMeter™ Program and has deployed over 9.4
4 million advanced meters to its customers. Already, PG&E collects on the order
5 of 90 billion meter reads per year over the SmartMeter™ networks. Key
6 objectives such as the ability to collect interval data, provide customers online
7 access to their interval usage data, and integrate with PG&E's operations to
8 drive cost efficiencies have now or will soon be achieved as the Program installs
9 the last of the SmartMeter™ technology at customer locations.

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effectively deployed, although there will likely be unique, individual locations requiring modifications to optimize performance.³

By January 1, 2014, PG&E expects to have completed the SmartMeter™ Program deployment and delivered the benefit-generating functionality described in the AMI and SMU Decisions. The majority of PG&E's meter population will be upgraded to "smart" technology using PG&E's standard SmartMeter™ and associated network devices. PG&E anticipates that a small percentage of electric meters (estimated at up to 100,000 locations) may not connect to its SmartMeter™ network through the standard mesh technology and could require one or more alternative technologies to upgrade the meters to "smart" functionality. In addition, PG&E has determined that certain large commercial meters are better served by modified existing technology.⁴

D. Treatment of SmartMeter™-Related Costs and Benefits in the 2014 GRC

1. PG&E's Proposed Closure of the SmartMeter™ Balancing Accounts, the Benefits Realization Mechanism, and the Meter Reading Cost Balancing Accounts

Decision 06-07-027 authorized PG&E to recover two types of costs in the SBAs: (1) SmartMeter™ Program deployment costs; and (2) recurring costs associated with operating the SmartMeter™ system through 2010. Because PG&E expects program deployment to be complete by the end of 2013, SmartMeter™ Program deployment costs will no longer be incurred in 2014. The second category of costs, recurring O&M expenses, ceased to be recorded in the SBAs as of January 1, 2011. Accordingly, the SBAs will no longer be needed and PG&E proposes to close the accounts on December 31, 2013.⁵

With the closure of the SBAs, recovery of the ongoing capital-related revenue requirements associated with past SmartMeter™ Program

³ Customers' opt-out or delay in accepting an electric SmartMeter™ has, in some cases, reduced connectivity (i.e., degraded the RF-network) requiring network compensation.

⁴ For example, customer accounts served by MV-90 meters are capable of interval data functionality, customer web presentment, and the ability to produce automated bills through either PG&E's Customer Care and Billing system or Advanced Billing System.

⁵ D.11-05-018, Ordering Paragraph (OP) 19, required the Commission staff to oversee an independent audit of PG&E Smart Meter-related costs, at PG&E's expense. As of October 1, 2012, Commission staff has not yet commenced this audit.

1 deployment capital costs will now occur in PG&E's GRCs. Previously,
 2 recovery of these ongoing capital-related revenue requirements occurred via
 3 the SBAs. In this 2014 GRC, the beginning-of-year 2014 plant, depreciation
 4 reserve, and rate base amounts include the amounts associated with
 5 SmartMeter™ Program deployment capital costs incurred since the
 6 Program's inception through 2011 and those forecast to be incurred in 2012
 7 and 2013. Such costs are thereby consolidated with the 2014 GRC capital
 8 request.⁶

9 In the AMI and SMU Decisions, the Commission granted PG&E a total
 10 of \$2.306 billion to deploy the SmartMeter™ Program and SmartMeter™
 11 Program Upgrade, including associated recurring O&M expenses through
 12 2010. This amount includes a \$100 million allocation for which the CPUC
 13 approved 90 percent cost recovery in Decision 06-07-027 (i.e., customer
 14 rates will cover \$90 million and shareholders will pay \$10 million). As of
 15 June 30, 2012, SmartMeter™ Program expenditures totaled approximately
 16 \$2.253 billion.⁷ PG&E projects total costs to exceed the authorized amount.
 17 Decision 06-07-027 would allow PG&E to seek recovery of excess costs.
 18 PG&E does not at this time seek to recover these additional costs.

19 In the 2011 GRC, PG&E recommended and the Commission approved
 20 continuation of the Benefits Realization Mechanism to credit
 21 SmartMeter™-related operational savings to the SBA revenue requirements
 22 through 2013.⁸ Consistent with the proposed elimination of the SBAs,
 23 PG&E also proposes elimination of the Benefits Realization Mechanism on
 24 December 31, 2013. This is appropriate because the benefits associated
 25 with the SmartMeter™ Program are directly reflected in the 2014 cost
 26 estimates in this GRC, as explained in Section D.2 below.

27 Finally, PG&E proposes elimination of the Meter Reading Cost
 28 Balancing Accounts. In approving the Benefits Realization Mechanism in
 29 the 2011 GRC, the Commission removed estimated meter reading benefits
 30 from the mechanism and established gas and electric Meter Reading Cost

6 The workpapers supporting this Chapter 10 include the SmartMeter™ Program capital expenditures for the recorded period 2007 through 2011 and forecast 2012 and 2013.

7 See PG&E's Semi-Annual SmartMeter™ Report, filed with the Commission on October 1, 2012.

8 D.11-05-018, Attachment 1, p. 1-11; PG&E Advice Letter 3210-G/3850-E.

1 Balancing Accounts for the purpose of recording meter-reading and related
2 expenses. Under the terms of PG&E's authorized 2011 GRC settlement
3 agreement, the Meter Reading Cost Balancing Accounts treatment was
4 limited to the current 2011 GRC cycle (i.e., it terminates at the end
5 of 2013.)⁹ PG&E proposes that meter reading expenses be directly
6 reflected in the 2014 cost estimates¹⁰ and revenue requirement request in
7 this GRC and that the Meter Reading Cost Balancing Accounts be closed on
8 December 31, 2013. These changes to PG&E's balancing accounts are
9 also discussed in Exhibit (PG&E-10), Chapter 9, Balancing Accounts.

10 **2. PG&E's 2014 GRC Cost Estimates Incorporate SmartMeter™ Program** 11 **Benefits Forecast at Program Completion**

12 The SmartMeter™ Program has delivered the systems, operational
13 process changes and functionality required to enable the benefits outlined in
14 the original AML and SMU applications. As described above, PG&E
15 proposes elimination of the Benefits Realization Mechanism on
16 December 31, 2013. In its place, each of the PG&E witnesses who has a
17 Major Work Category (MWC) with SmartMeter™-related benefits has
18 incorporated those estimated benefits into 2014 cost estimates. The
19 SmartMeter™ platform and functionality is now being built upon and used to
20 provide additional customer services in other proceedings, including making
21 available interval meter usage and pricing data to customers on the web;
22 developing a methodology with the California Independent System Operator
23 to make wholesale prices available to customers; making customer interval
24 usage data available to third parties at the customer's direction through the
25 utility's backhaul system; developing a pilot study to provide price
26 information to customers in real- or near-real time; implementing Home Area
27 Network (HAN) plans to make the HAN functionality and benefits generally
28 accessible to customers; and piloting Demand Response projects to enable
29 load control and other two-way communications services to customers and
30 third-parties for demand management purposes.

⁹ D.11-05-018, Attachment 1, p. 1-9, 10(a).

¹⁰ The meter reading expense forecast is included in Exhibit (PG&E-5), Chapter 5.

1 Importantly, PG&E's 2014 GRC forecasts include SmartMeter™
2 expense savings in the amount of \$182.2 million, i.e., the full annualized
3 Program savings, net of savings already returned to customers in 2011, as
4 well as \$5.8 million of capital expenditure benefit. Table 10-1 presents the
5 SmartMeter™ recorded and forecast savings/benefits for the period 2011
6 through 2014 and also provides a mapping to the 2014 GRC exhibits and
7 chapters where the forecast SmartMeter™ benefits are discussed and the
8 MWCs where the benefits are reflected.

TABLE 10-1
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ BENEFITS 2011-2014
(MILLIONS OF DOLLARS)

Line No.	Description	MWC	2014 GRC Exhibit and Chapter Reference	2011 Actual Benefit Posted	2014 Incremental Annualized Savings from 2011 Recorded Costs	Full Annualized Savings from 2008 Recorded Costs
	(a)	(b)	(c)	(d)	(e)	(f) = (d + e)
1	<u>Benefit Category - EXPENSE</u>					
2	<u>A. AMI Decision D.06-07-027</u>					
3	Meter Reading	AR	Ex 5, Ch 5	\$40.6	\$73.8	\$114.4
4	Remote Electric Shut-Off	IT, DD	Ex 5, Ch 4	4.9	5.5	10.4
5	Avoided TOU Meter Maintenance	EY	Ex 5, Ch 5	2.8	5.9	8.8
6	Cash Flow on Summary Bills	–	Ex 2, Ch 13	2.6	5.0	7.6
7	Exceptions Processing	IS	Ex 5, Ch 4	2.1	4.1	6.2
8	Avoided Dispatch, Power is On	DD	Ex 4, Ch 17	2.0	4.2	6.2
9	Significant Outage Restoration	BH	Ex 4, Ch 10	1.5	3.0	4.5
10	Lower Customer Call Volumes	DK	Ex 5, Ch 2	1.3	2.4	3.7
11	Deferred Meter Testing	EY	Ex 5, Ch 5	0.7	0.3	1.1
12	Improved TOU Rate Changes	EY	Ex 5, Ch 5	0.5	1.0	1.5
13	Momentary Outage Detection	FZ	Ex 4, Ch 14	0.3	0.4	0.7
14	Load Research Expense	EZ	Ex 5, Ch 4	0.9	1.8	2.7
15	Automated Interval Billing	IS	Ex 5, Ch 4	0.5	1.1	1.6
16	<u>B. SMU Decision D.09-03-026</u>					
17	Remote Electric Shut-Off	IT, DD	Ex 5, Ch 4	3.7	5.9	9.6
18	Improved Cash Flow	–	Ex 2, Ch 13	0.4	0.6	0.9
19	Reduced Bad Debt Expense	Acct 904	Ex 5, Ch 4	0.9	1.3	2.3
20	Total Expense Benefits			\$65.7	\$116.3	\$182.2
21	<u>Benefit Category – CAPITAL</u>					
22	Significant Outage Restoration	95	Ex 4, Ch 10			3.7
23	Electric T&D Engrg & Plng	6	Ex 4, Ch 12			0.3
24	Electric T&D Engrg & Plng	46	Ex 4, Ch 12			0.3
25	Gas T&D Savings	47	Ex 3, Ch 8			0.7
26	Load Research Savings	25	Ex 5, Ch 4			0.8
27	Total Capital Expenditure Benefits					\$5.8

Note: Table totals may vary due to rounding.

1 **3. Recovery of Ongoing Operating Costs**

2 Consistent with the approach adopted by the Commission in PG&E's
3 2011 GRC Decision, costs associated with operating and maintaining
4 SmartMeter™ infrastructure and processes and installing new meters on an
5 on-going basis are now recovered through GRCs. These functions are now
6 performed as part of normal utility business. Accordingly, in this 2014 GRC,

1 the capital costs of installing SmartMeter™ devices to serve new business
 2 and the expenses for ongoing SmartMeter™ operations (such as monitoring
 3 the SmartMeter™ network) are included in the cost forecasts in the
 4 appropriate exhibits and chapters.

5 **E. SmartMeter™ Opt-Out Program**

6 On February 1, 2012, the Commission issued Decision 12-02-014,
 7 approving PG&E's request to allow residential customers who do not want a
 8 SmartMeter™ to choose to opt-out of the SmartMeter™ Program.¹¹ Under the
 9 SmartMeter™ Opt-Out Program, customers may receive service using an
 10 analog meter(s), either receiving an analog meter to replace the installed
 11 SmartMeter™ or retaining the analog meter at their premises.¹² PG&E
 12 launched the SmartMeter™ Opt-Out Program on February 1, 2012, and on
 13 February 2, 2012, began changing out SmartMeters™ to meet the requests of
 14 those customers who elected not to have a SmartMeter™. As of October 1,
 15 2012, approximately 31,500 customers have asked to opt-out of the
 16 SmartMeter™ Program.

17 Decision 12-02-014 also ordered a Phase 2 in PG&E's Opt-Out proceeding
 18 to consider cost recovery and other issues.¹³ PG&E has been tracking
 19 SmartMeter™ Opt-Out Program costs and revenues in the SmartMeter™
 20 Opt-Out Memorandum Accounts (SOMA-E and SOMA-G) per the direction of
 21 the Commission in Decision 12-02-014 and expects to recover Program costs
 22 incurred in 2012 and 2013 pursuant to a decision in the Phase 2 Opt-Out
 23 proceeding. Hence, only the ongoing costs for operating the SmartMeter™
 24 Opt-Out Program in the 2014 GRC test period are requested in this GRC, net of
 25 revenues received from participating customers.

26 The categories of ongoing SmartMeter™ Opt-Out Program costs and
 27 revenues included in this 2014 GRC are shown in Table 10-2, which provides a

11 PG&E filed its request for the SmartMeter™ Opt-Out Program in A.11-03-014.

12 For the great majority of customers, the meters received under the SmartMeter™ Opt-Out Program will be analog meters. For a very small number of residential electric customers that require special meters, these meters will be non-communicating solid-state digital meters.

13 In an April 24, 2012 Ruling, the Commission consolidated PG&E's Phase 2 Opt-Out proceeding with SCE's and SDG&E's opt-out proceedings.

1 mapping to the 2014 GRC exhibits and chapters where the forecast Program
2 costs are discussed.

TABLE 10-2
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ OPT-OUT PROGRAM
COSTS AND REVENUES IN THE 2014 GRC
(THOUSANDS OF DOLLARS)

Line No.	Description	MWC	2014 GRC Exhibit and Chapter Reference	2014 GRC Cost Request
1	<u>Expenses</u>			
2	Meter Reading	AR	Ex 5, Ch 5	\$27,933
3	Billing Operations	IS	Ex 5, Ch 4	792
4	Network Monitoring	JV	Ex 7, Ch 8	270
5	Field Collection Activities	IT	Ex 5, Ch 4	<u>2,118</u>
6	Total Expenses			\$31,113
7	<u>Capital</u>			
8	Analog Electric Meter Installations	25	Ex 5, Ch 5	\$5
9	Analog Gas Meter Installations	74	Ex 5, Ch 5	4
10	Compensating Mesh Network Device Installations	2F	Ex 7, Ch 8	<u>36</u>
11	Total Capital Expenditures			\$45
12	<u>Revenues From Customer Charges</u>			
13	Electric Revenues	N/A	Ex 2, Ch 18	\$11,392
14	Gas Revenues	N/A	Ex 2, Ch 18	<u>9,321</u>
15	Total Revenues			\$20,713

3 The estimated SmartMeter™ Opt-Out Program participation rate as of
4 January 1, 2014, that underlies the cost estimates shown in Table 10-2 is
5 approximately 200,600 customers. This estimate was derived based on a
6 trajectory from the number of customers who had elected to opt-out by May
7 2012 when PG&E prepared the analysis for the 2014 GRC Notice of Intent
8 (NOI).¹⁴ Subsequent to PG&E's 2014 GRC NOI submission, PG&E submitted
9 SmartMeter™ Opt-Out Program Testimony in Phase 2 of the SmartMeter™ Opt-
10 Out proceeding. The estimated participation rate included in PG&E's Phase 2
11 Testimony is 54,000 customers based on updated participant data as of June
12 30, 2012, as well as various other factors including the assumption that the Opt-
13 Out Program eligibility and fee structure ordered in Phase 1 will remain

¹⁴ The number of customers electing to opt-out as of the date the analysis was prepared for this 2014 GRC NOI—i.e., May 3, 2012—was approximately 25,400.

1 unchanged.¹⁵ However, these foundational program elements are being
2 revisited in Phase 2 of the Opt-Out proceeding, and the outcome of that parallel
3 proceeding (e.g., whether community opt-out will be permitted and whether
4 current Opt-Out Program fees will be modified) will directly impact the
5 SmartMeter™ Opt-Out Program participation rate.

6 Given the current uncertainty associated with issues being litigated in Phase
7 2 of the Opt-Out proceeding, the actual future Opt-Out Program customer
8 participation rate is uncertain. PG&E's estimated 200,600 customer participation
9 rate reflects the uncertainty surrounding Phase 2. To the extent that the trend
10 of actual opt-out participation or the Commission's rulings and decisions in the
11 Phase 2 proceeding provide guidance or minimize the uncertainty regarding
12 PG&E's SmartMeter™ Opt-Out Program participation rate, PG&E may update
13 its estimated participation rate and related costs presented in its 2014 GRC.
14

15 **F. SmartMeter™ Reporting Requirements**

16 The AMI and SMU Decisions established certain reporting requirements
17 regarding PG&E's SmartMeter™ Program. Given that the SmartMeter™
18 Program has transitioned to normal operations and PG&E estimates that full
19 deployment of SmartMeters™ will be completed prior to 2014, PG&E requests
20 that the deployment-focused reporting requirements shown in Table 10-3 be
21 discontinued.¹⁶ As PG&E, Southern California Edison Company and San Diego
22 Gas and Electric Company complete their smart meter deployments, the
23 Commission has shifted the reporting focus to a new set of shared metrics
24 adopted in Decision 12-04-025 that assess the utilities' Smart Grid deployments.

¹⁵ On August 10, 2012, PG&E submitted Prepared Testimony in Phase 2 of the Opt-Out proceeding. The assumptions and methodology used to derive the 54,000 estimated participation rate in that proceeding is described at A.11-03-014, SmartMeter™ Opt-Out Program Phase 2 Prepared Testimony, pp.1-4 to 1-6.

¹⁶ PG&E's request to discontinue the deployment-related reporting requirements does not extend to the Load Impact Evaluation Report, required by OP 5 of Decision 06-07-027, or the PG&E SmartMeter™ Program Enabled Demand Response and Energy Conservation Annual Report, required by OP 10 of D.09-03-026.

**TABLE 10-3
PACIFIC GAS AND ELECTRIC COMPANY
SMARTMETER™ REGULATORY REPORTING REQUIREMENTS**

Requirement Name	CPUC Directive	Requirement Description	Report Frequency
Monthly SmartMeter™ Steering Committee Report	D.06-07-027 O.P.4	PG&E shall provide DRA and the Energy Division with a summary report of the following information as provided to PG&E's Executive Steering Committee: 1) Project status, 2) Progress against baseline schedule including equipment installation and key milestones; 3) Actual project spending vs. forecast; and 4) Risk-based contingency allowance draw-down status.	Monthly
Semi-Annual SmartMeter™ Report	D.06-07-027 O.P.16	PG&E shall provide the Chief Administrative Law Judge, Energy Division, DRA and all other parties in this proceeding a semi-annual report assessing AMI deployment as set forth herein, beginning six months after the effective date of this decision.	Semi-Annually
Annual AMI Workshop	D.06-07-027 O.P.17	PG&E shall conduct an annual workshop in conjunction with the California Energy Commission as described herein. (Annual workshop to provide the vendor and intervenor community an opportunity to observe and comment on PG&E's AMI assessment.)	Annually
Quarterly SmartMeter™ Report	D.09-03-026 O.P.7	PG&E shall provide quarterly reports on the implementation progress of the SmartMeter Upgrade to the Commission's Energy Division. PG&E shall consult with the Energy Division to determine what information and to coordinate reporting requirements ordered in D.06-0--027.	Quarterly
Quarterly SmartMeter™ Water Report	D.09-03-026 O.P.11	PG&E shall work with the water utilities in its service territory through either workshops or direct dialogue and report back to the Commission on the status of its efforts and results of its discussion on a quarterly basis beginning April 11, 2009.	Quarterly

1 **G. Conclusion**

2 PG&E has been an industry pioneer in SmartMeter™ deployment. PG&E is
3 in the completion phase of its SmartMeter™ Program and has deployed over 9.4
4 million advanced meters to its customers. Already, PG&E collects on the order
5 of 90 billion meter reads per year over the SmartMeter™ networks. Key
6 objectives such as the ability to collect interval data, provide customers online
7 access to their interval usage data, and integrate with PG&E's operations to
8 drive cost efficiencies have now or will soon be achieved as the Program installs
9 the last of the SmartMeter™ technology at customer locations.