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

Application of Pacific Gas and Electric Company for Authority to Increase Revenue Requirements to Recover the Costs to Deploy an Advanced Metering Infrastructure

A.05-06-028 (Filed June 16, 2005)

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#### MONTHLY SMARTMETER™ STEERING COMMITTEE UPDATE REPORT OF PACIFIC GAS AND ELECTRIC COMPANY FOR NOVEMBER 2012 IN ACCORDANCE WITH THE MAY 4, 2010 ASSIGNED COMMISSIONER'S RULING

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Dated: December 28, 2012

Attorneys for PACIFIC GAS AND ELECTRIC COMPANY Pacific Gas and Electric Company (PG&E) submits the attached November 2012 "SmartMeter™ Steering Committee Update Report" on the deployment and budget status of its Advanced Metering Infrastructure (AMI) Project in accordance with the May 4, 2010 "Assigned Commissioner's Ruling Reopening Proceeding, Requiring That Reports Be Filed in This Proceeding, and Ordering Pacific Gas and Electric Company to Release Prior and Future Reports to the Public," Ordering Paragraph 3. Underlying Decision 06-07-027, Ordering Paragraph 4, requires that this monthly summary report provide the following information: 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. The attached report complies with that decision and the Commissioner's Ruling.

Respectfully Submitted,

CHRISTOPHER J. WARNER

By: /s/ Christopher J. Warner CHRISTOPHER J. WARNER

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Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

Dated: December 28, 2012

# Smart/Meter

SmartMeter<sup>™</sup> Steering Committee Update – November 2012

- Monthly Updates
  - ► Release Status Update
  - Deployment Status Update
  - ► Schedule Update
  - Deployment Update
  - Budget Status Expenditures by Workstream
  - Budget Status Benefits
  - Issues / Risks Summary
  - ► Program Metrics
- Appendix
  - Project Deployment Plan Progress
  - Contingency Reconciliation
  - ► SmartMeter<sup>TM</sup> Acronyms

Steering Committee November 2012 Report<sup>2</sup>

# **Release Status Update**

	EAC	Funded Budget	ITD	Scope	Schedule	Resources	Issues	Risks
IT Releases: October 31, 2012								
Release 1								
Release 2								
Release 3								

Challenges	Actions/Status							
<u>Overall</u>	Overall							
<ul> <li>IT has executed against the SmartMeter plan. HAN enablement and Peak Time Rebate roadmaps are in progress.</li> </ul>	<ul> <li>Development for all in-scope functionality completed as of 3/30/12</li> <li>Project stabilization work complete for all components except MV90 and NEMs.</li> <li>HAN enablement in implementation</li> <li>Peak Time Rebate roadmap awaiting Commission approval.</li> </ul>							
	Steering Committee November 2012 Report 3							

#### SB\_GT&S\_0190643

# **Deployment Status Update**

	EAC	2012 Forecast (2012 EOY / CPI)	Scope	Schedule	Resources	Issues	Risks
Deployment: October 31, 2012		<b>.</b>	1				
Endpoints (2012 YTD)							
Gas Network (2012 YTD)							
Electric Network (2012 YTD)							
Challenges			Actions/Status				
<ul> <li>Endpoints</li> <li>Mass deployment is 94.0% completed in less concentrated geographic areas</li> <li>Field Deployment team addressing less NEM and Transformer Rated meter im</li> <li>Higher than traditional number of 'Una</li> </ul> Electric Network <ul> <li>Initial design scope of electric network</li> <li>Assess whether additional electric network customers opting out of SmartMeter™</li> </ul>	s common meter ty plementation. ble To-Complete' m is complete. work is necessary in	/pes, including	<ul> <li>Endpoints</li> <li>Continuing to complexity of the second seco</li></ul>	developed to ac buts and UTC's. 2013 schedule v and of year targe allations.	ddress gaps in M vith installation c t from 400K to 28 on network. er and internal st	leter Reading ontractor is r 35K due to s	g routes now in place. lower than
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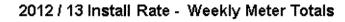
🔨 Forecasted Milestone (early) 🔝 Milestone TBD

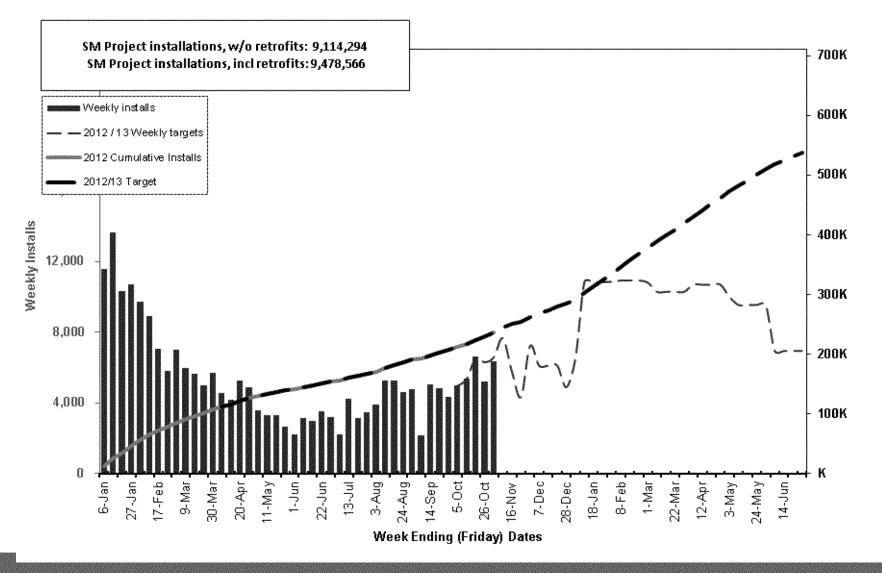
# Schedule Update

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Approved Milestone (delay)







### 2012 Budget Status – Expenditures by Workstream

		Curren	t Month - Oc	tøber	Year	to Date - Octo	ober	2012 Annual	Inception to	
#	Work Stream	Budget	Actual	Variance	Budget	Actual	Variance	Forecasts *	Date Actual	#
	A. Capital (000s)			·	·					
1	BUSINESS OPERATIONS (PMO)	\$0	\$99	(\$99)	\$1,060	\$1,117	(\$57)	\$1,053	\$50,420	1
2	SM OPERATIONS	\$0	\$0	(\$0)	\$0	\$0	(\$0)	\$0	\$11,310	2
3	SM FIELD DELIVERY	\$5,376	\$4,827	\$549	\$51,959	\$35,173	\$16,786	\$31,018	\$436,523	3
4	SM SOLUTIONS	\$2,061	\$2,334	(\$273)	\$19,718	\$3,290	\$16,428	\$18,727	\$976,465	4
5	IT	\$735	\$216	\$519	\$8,047	\$5,371	\$2,676	\$8,548	\$374,997	5
6	Capital Total:	\$8,172	\$7,476	\$696	\$80,784	\$44,951	\$35,833	\$59,346	\$1,849,715	6
	B. Expense (000s)									
7	BUSINESS OPERATIONS (PMO)	\$0	\$4	(\$4)	\$1,955	\$516	\$1,439	\$1,853	\$26,856	7
8	SM OPERATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,594	8
9	SM CHANGE MANAGEMENT	\$0	\$0	\$0	\$150	\$62	\$88	\$169	\$14,947	9
10	CUSTOMER	\$968	\$1,157	(\$189)	\$10,945	\$7,954	\$2,991	\$12,899	\$104,954	10
11	SM FIELD DELIVERY	\$23	\$0	\$23	\$279	\$26	\$253	(\$10)	\$18,018	11
12	SM SOLUTIONS	\$0	\$5	(\$5)	\$0	\$39	(\$39)	\$53	\$67,967	12
13	п	\$226	\$93	\$134	\$3,306	\$1,345	\$1,961	\$3,064	\$134,468	13
14	Expense Total:	\$1,218	\$1,260	(\$42)	\$16,635	\$9,942	\$6,692	\$18,028	\$423,805	14
	C. Total: Capital + Expense (000s)									
15	BUSINESS OPERATIONS (PMO)	\$0	\$103	(\$103)	\$3,016	\$1,633	\$1,382	\$2,905	\$77,276	15
16	SM OPERATIONS	\$0	\$0	(\$0)	\$0	\$0	(\$0)	\$0	\$67,904	16
17	SM CHANGE MANAGEMENT	\$0	\$0	\$0	\$150	\$62	\$88	\$169	\$14,947	17
18	CUSTOMER	\$968	\$1,157	(\$189)	\$10,945	\$7,954	\$2,991	\$12,899	\$104,954	18
19	SM FIELD DELIVERY	\$5,399	\$4,827	\$572	\$52,237	\$35,199	\$17,038	\$31,008	\$454,541	19
20	SM SOLUTIONS	\$2,061	\$2,339	(\$279)	\$19,718	\$3,329	\$16,389	\$18,781	\$1,044,432	20
21	п	\$962	\$309	\$653	\$11,353	\$6,716	\$4,637	\$11,613	\$509,466	21
22	Capital + Expense Total:	\$9,390	\$8,736	\$654	\$97,419	\$54,893	\$42,525	\$77,374	\$2,273,520	22

#### Year-to-Date Variance Explanations:

Favorable YTD capital variance (\$35.8M) primarily due to fewer meter/module installations (#3), fewer electric meter purchase s (#4), and delayed timing of initial HAN roll - out (#5).

Favorable YTD expense variance (\$6.7M) primarily due to lower spending than planned in Business Operations/PMO (#7), Custome r (#10) and IT (#13).

\* Annual budgets revised with intent to complete project in 2013.

#### SmartMeter Balancing Account (SBA) Credits \*

		Actual							Forecast																	
#	(\$ in thousands)	2007	2008	2009	2010	2011		Jan	Feb		Mar	Apr	May	Jun	J	lul	Aug		Sep	Oct	Nov		Dec	ITD	Actual	#
1	Activated Meter Benefits	:\$ 11 <sup>,</sup>	\$ 4,705	\$ 26,055	\$ 56,313	\$ 25,269	\$	2,479	\$ 2,58	87 \$	2,599	\$ 2,626	\$ 2,654	\$ 2,698	\$ 2	2,708	\$ 2,72	4 \$	2,765	\$ 2,817	\$ 2,853	\$	2,912	\$ 1	139,110	1
2	Mainframe License Benefits	: \$ 1,250	\$ 5,000	\$ 5,000	\$ 5,000		\$	-	\$-	\$	-	\$-	\$-	\$-	\$	-	\$-	\$	-	\$ -	\$ -	\$	-	\$	16,250	2
3	Total	\$ 1,361	\$ 9,705	\$ 31,055	\$ 61,313	\$ 25,269	\$	2,479	\$ 2,58	87 \$	2,599	\$ 2,626	\$ 2,654	\$ 2,698	\$ 2	2,708	\$ 2,72	4 \$	2,765	\$ 2,817	\$ 2,853	\$	2,912	\$ 1	155,360	3
4	2012 Cumulative Actual + Forecas	:					\$	2,479	\$ 5,06	66 \$	7,665	\$ 10,291	\$ 12,945	\$ 15,642	\$ 11	8,350	\$ 21,07	5\$	23,840	\$ 26,657	\$ 29,510	\$	32,422			4

#### 2012 Benefits, Budget vs. Actual and Forecast \*\*

	(\$ in thousands)	Jan Feb Mar Apr May Jun Jul Aug Sep*** Oct Nov Dec
	Budgeted Benefits:	
5	Monthly	\$ 2,373 \$ 2,412 \$ 2,392 \$ 2,432 \$ 2,473 \$ 2,515 \$ 2,557 \$ 2,600 \$ 4,120 \$ 2,765 \$ 2,811 \$ 2,857 5
6	Cumulative	<b>\$ 2,373 \$ 4,785 \$ 7,177 \$ 9,609 \$ 12,082 \$ 14,597 \$ 17,154 \$ 19,755 \$ 23,874</b> \$ 26,640 \$ 29,450 \$ 32,307 6
	Actual / Current Forecast:	
7	Monthly	<b>\$ 3,724 \$ 4,244 \$ 4,019 \$ 4,118 \$ 4,302 \$ 3,745 \$ 3,830 \$ 3,950 \$ 3,757</b> \$ 4,121 \$ 2,811 \$ 2,857 7
8	Cumulative	\$ 3,724 \$ 7,968 \$ 11,987 \$ 16,106 \$ 20,407 \$ 24,152 \$ 27,983 \$ 31,933 \$ 35,690 \$ 39,811 \$ 42,621 \$ 45,478 8
9	YTD Variance	<b>\$ 1,351 \$ 3,183 \$ 4,811 \$ 6,497 \$ 8,325 \$ 9,555 \$ 10,828 \$ 12,178 \$ 11,816</b> \$ 13,171 \$ 13,171 \$ 13,171 9

\* 2011 and 2012 SmartMeter Balancing Account (SBA) actuals and forecasts consistent with the GRC Settlement of \$0.92 electric / \$0.02 gas activated meter-month savings and the discontinuation of mainframe license savings already captured in the 2008 base year results

\*\* 2012 benefits, budget versus actual and forecast, do not include meter reading costs and benefits which are being recorded in the Meter Reading Memorandum Account beginning on January 1, 2011.

\*\*\* Expense budget reductions and transfers from Line of Businesses (LOBs) made beginning in September to cover forecasted \$2M shortfall from what is expected to be credited to the SBA by year-end.

#### Steering Committee November 2012 Report<sup>8</sup>

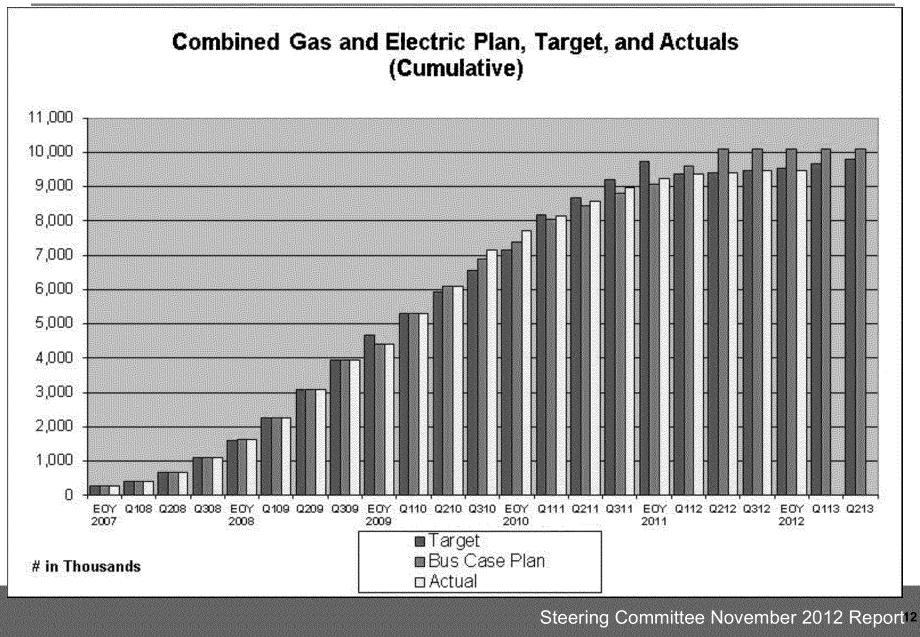
Target Resolution Date	Issue	Impact	Status Summary
Ongoing	Installation attempts affected by access refusals and desire for customer choice program.	Increased costs, increase in unable to complete (UTC) back-log, customer change management.	Communicating with customers about the new SmartMeter Opt-Out Program to facilitate customer elections. Customer Choice Phase 2 resolution is expected in 2013.

# **Risks Summary**

#	Created On	I	Ρ	Score	Prev. Score	Risk	Impact	Status Summary	Assoc. Issue
1	9/30/2011	5	4	20	20	Increased forecast deployment costs and external resources requirement <i>Key drivers:</i> Delays in deployment, resource availability and installation complexity	Increased installation costs and contract resources required to complete remaining installations effectively and timely	Pursuing identified opportunities to increase installation efficiency within ongoing operations and adherence to scope.	
2	9/1/2011	5	3	15	15	Network deployment and performance in 'hard-to-reach' areas can not be completed successfully. <i>Key drivers:</i> Network performance in 'hard-to-reach' areas and availability of alternate solutions.	Deployment delays, resource planning and increased costs.	Pursuing resolution of network coverage in 'hard -to-reach' areas with technology supplier, including potential alternate network solutions.	

# **Program Metrics**

Metric	Key Performance Indicator	Sept '1: Actual	2 - Month Results Target Var	OCT '12 Actual	2 - Month Results Target Var	Actual	YTD Target Var	2012 Y Curren	ear End Forecast : Target Var	Variance Analysis
P1	SM Earnings Contribution (\$M - estimated)	\$ 5.72	\$ 5.79 -1.2%	\$ 5.72	\$ 5.78 -1.0%	57.86	58.11 -0.4%	\$ 69.71	\$ 69.43 0.4%	Fewer meter/module purchases and installations than planned. Revised year- end forecast target.
P2	OSHA Recordable Rate (YTD)	-	0.51	-	0.51	<b>.</b>		-	0.51	, , , , , , , , , , , , , , , , , , ,
P3	MVI Recordable Rate (YTD)	-	0.10	-	0.10			-	0.98	
C1	Customers enrolled in SmartRate (net)	76,840	(track only)	79,009	(track only)					
C2	# of CPUC escalated Customer Complaints	2	(track only)	5	(track only)	56	(track only)			
C10	Customer Complaint Rate (escalated to CPUC)	0.012%	(track only)	0.018%	(track only)	0.024%	(track only)			
D1	Meters/Modules Installed - Electric & Gas	16,412	36,480 -55.0%	27,530	27,218 1,1%	234,678	234,366 0.1%	285,000	285,000 0.0%	
D5	UTC Rate	14.3%	15.0% 4.7%	14.8%	15.0% 1.3%	17.4%	15.0% -13.8%	18.0%	a 15.0% 20.0%	See Slide 4 for details
D7	UTCs open beyond 90 days	148,856	(track only)	150,433	(track only)	L			•	
D8	CPI - Endpoints	\$125.05		\$110.01		\$120.63		\$82.97		CPI target under review in conjunction with revised deployment plan
D14	Total Weeks of Inventory on Hand - Electric Meters	12	6 100.0%	9	6 50.0%	L	L	L		4
D15	Total Weeks of Inventory on Hand - Gas Modules	21	6 250.0%	29	6 383.3%					
04	Transition Aging - Average Days	208	(track only)	287	(track only)	206	(track only)	152	(track only)	
O5	SM Billing accuracy % (SA)	99.80%	99.88% -0.1%	99.81%	99.88% -0.1%	99.82%	99.87% -0.1%	99.88%	6 99.88% 0.0%	
O6	SM Billing timeliness % (SA)	99.95%	99.81% 0.1%	99.96%	99.81% 0.2%	99.96%	99.80% 0.2%	99.79%	6 99.79% 0.0%	
07	SM % Bills not estimated (BSEGs)	99.93%	99.90% 0.0%	99.93%	99.90% 0.0%	99.94%	99.90% 0.0%	99.90%	a 99.90% 0∶0%	
B2	Meters Activated - Electric & Gas (end of month)	92,206	(track only)	44,974	(track only)	849,697	(track only)	850,412	(track only)	



SmartMeter™ Contingency Reconciliation	\$'000s
Business Case Approved Contingency	177,753
Total Approved Decision Requests Approved and Adopted by Steering Committee	177,753
Approved Project Decision Requests, by Approval Date	
2007	106,329
2008	32,240
2009	20,313
2010	
	177,753

# SmartMeter<sup>™</sup> Acronyms

SmartMeter Acronyms											
Acronym	Definition	Acronym	Definition								
ABS	Advanced Billing System	MARA	My Account Re-Architecture								
AFCI	Arc Fault Circuit Interrupter	MDMS	Meter Data Management System								
AMI	Advanced Metering Infrastructure	MLPP	Meter Location Problem Project								
AP	Access Point	MPSC	Meter Power Status Check								
Apps	Applications	MV-90	Multi Vendor - 90								
ASM	Automated Storage Management	MVI	Motor Vehicle Incidents								
BDG	Business Development Group	NEMS	Net Energy Metering Services								
CC&B	Customer Care and Billing	NIC	Network Interface Card								
CEDSA	Centralized Electric Distribution System Assets	OIR	Order Instituting Rulemaking								
CoE	Center of Excellence	OIS	Outage Information System								
CPI	Cost Per Install	ОМТ	Outage Management Tools								
CPUC	California Public Utilities Commission	Ops	Operations								
DART	Distribution Asset Reconciliation Tool	OSHA	Occupational Safety and Health Administration								
DC	Data Center	PCR	Project Change Request								
DCU	Data Collector Unit	PCT	Programmable Communicating Thermostat								
DR	Disaster Recovery	PDP	Peak Day Pricing								
DRA	Division of Ratepayer Advocates	PDR	Project Decision Request								
DSCI	Distribution Control Systems, Inc.	PE	Perfomance Engineering Company								
EA	Ecologic Analytics	РМО	Project Management Office								
EAC	Estimate at Completion	PTR	Peak Time Rebate								
ED	Energy Division	QBR	Quarterly Business Review								
EMR	Electric Meter Reader	RCDC2	Remote Disconnect Phase 2								
EMT	Electric Meter Technician	Rev.	Revision								
EOM	End-of-Month	RF	Radio Frequency								
EON	Emergency Outage Notification	RFA	Request For Authorization								
EOY	End Of Year	RV	Restoration Validation								
FA	Functional Area	SBA	SmartMeter Balancing Accounts								
FD	Field Delivery	SM	SmartMeter								
GE	General Electric Co.	SM Apps	SmartMeter Applications								
GFI	Ground Fault Interrupter	SMU	SmartMeter Upgrade								
HAN	Home Area Network	SR	Service Request								
НС	Head Count	TBD	To Be Determined								
IHD	In-Home Devices	TechArch	Technical Architechture								
ISTS	Information Systems and Technology Services	TIC	Technology Innovation Center								
IT	Information Technology	TLM	Transformer Load Management								
ITD	Inception To Date	TOU	Time Of Use								
IVR	Interactive Voice Response	UIQ	Utility IQ - SSN software								
кс	Knowledge Center	UTC	Unable To Complete (meter installation)								
KVAR	Kilo-Volts-Amps Reactive	YTD	Year-To-Date								
LOB	Line of Business										

### Steering Committee November 2012 Report<sup>14</sup>