



PG&E
SmartMeter 

SmartMeter™
Steering Committee Update – August 2011

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- ▶ **Monthly Updates**
 - ▶ **Release Status Update**
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 - ▶ **SmartMeter[™] Acronyms**

	EAC	Funded Budget*	ITD	Scope	Schedule	Resources	Issues	Risks
IT Releases: July 31, 2011								
Release 1								
Release 2								
Release 3								

Overall	Actions/Status
<p><u>Overall</u></p> <p>IT continues to execute against the plan produced as output from the Reconstruct effort. HAN enablement and Peak Time Rebate roadmaps are in progress.</p> <p><u>Release 1</u> – Provide remote connect/disconnect (RCD) phase 2, model office and exception management for interval billing, and additional performance & scalability improvements.</p> <p><u>Release 2</u> – Completion of the integration of SmartMeter™ data to the existing outage systems. This includes using the meter “last gasps”, “restoration” and meter ping capabilities. Added electric head-end system upgrade to scope of this release to enable FSU and firmware push.</p> <p><u>Release 3</u> – Improvements to meter data exception handling, NEMs deployment, scalability improvements for the data warehouse, and tracking of momentary outages.</p>	<p><u>Overall</u></p> <ul style="list-style-type: none"> Releases are being worked in parallel. Holding to the overall scope/schedule/budget defined in Reconstruct. Functional design, build, testing and deployment work in process. <p><u>Release 1</u></p> <ul style="list-style-type: none"> Successful go-live for all components of R1 except RCD. No issues or problems to report for any of the deployed functionality. RCD functionality not installed due to performance testing issues. Remediation in progress. New release date not yet determined. No budget impact is expected. <p><u>Release 2</u></p> <ul style="list-style-type: none"> Development and Test planning in progress and on schedule. Head-end system upgrade testing is underway. May include RCD functionality (slip from R1) in this release. <p><u>Release 3</u></p> <ul style="list-style-type: none"> Design almost complete. Build activities started for several components. Currently on schedule for all in-scope functionality.

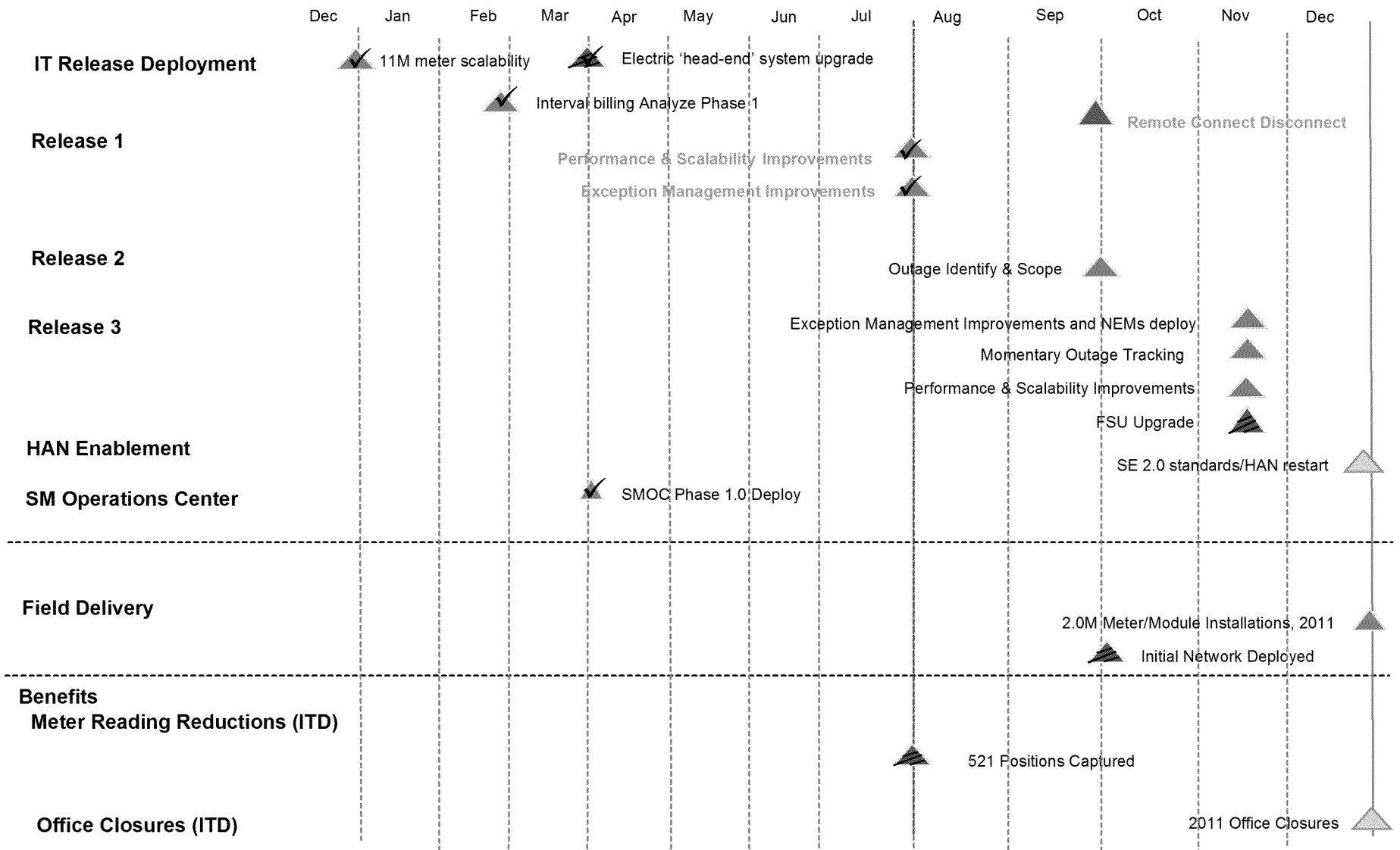
*Funded Budget represents the amount of funding that has been approved through the “gated” funding process. Projects that are noted as “Plan/Analyze” or “Analyze” are only partially funded through those initial phases. Upon completion of the Analyze phase, the release team will prepare a request to authorize the remaining amount required to complete the Release.

	EAC	2011 Forecast (2011 EOY / CPI)	Scope	Schedule	Resources	Issues	Risks
Deployment: July 31, 2011							
Endpoints (2011 YTD)							
Gas Network (2011 YTD)							
Electric Network (2011 YTD)							

Challenges

Actions/Status

<p><u>Endpoints</u></p> <ul style="list-style-type: none"> Targets based on original deployment schedule to complete 2 million meter installations in 2011. Increased rate of installation contractor 'Unable-To-Complete' due to non-standard meter installations in heavy urban areas and access refusals. Cost-per-install higher than planned due to resource mix. No Gas T&R resources available to deploy ~6,600 oil-filled gas rotary meter module installs this year. <p><u>Electric Network</u></p> <ul style="list-style-type: none"> Scope of remaining supplemental designs is currently unknown. Changes to the final network design drive inefficiencies in deployment. Increase in complex installation types required. Network completion dependent on endpoint installation completion <p><u>Gas Network</u></p> <ul style="list-style-type: none"> Complex/costly initial DCU installations remaining. Network completion dependent on endpoint installation completion 	<p><u>Endpoints</u></p> <ul style="list-style-type: none"> Installation contractor preparing Rev 15 schedule which will increase scope and resources; still short of overall endpoint goal. Executing urban customer access, non-standard installation and customer outreach processes. In process of securing outside vendor to deploy oil-filled gas rotary meter modules this year. <p><u>Electric Network</u></p> <ul style="list-style-type: none"> Working with technology supplier and internal stakeholders to improve the way network is designed, which will improve efficiency. <p><u>Gas Network</u></p> <ul style="list-style-type: none"> Working with technology supplier and Engineering to ensure necessity of new pole set and complex installations. Working with Gas Remediation teams to determine design schedule for final supplemental DCUs to maximize installation efficiencies. Prioritization of network installation devices.
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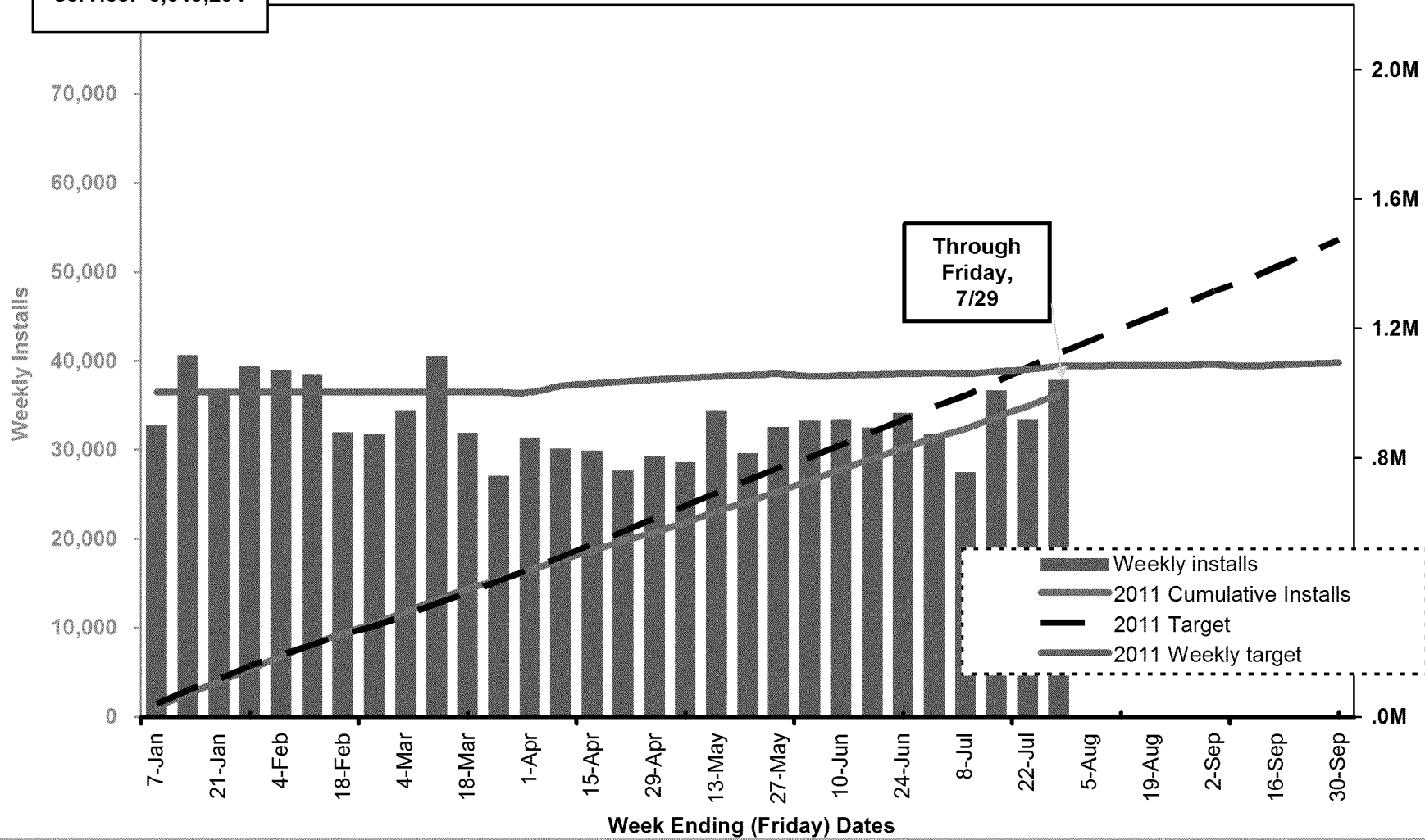


Legend					
▲	Baseline Milestone	✓	Milestone Met	▲	Forecasted Milestone (delay)
▲	Forecasted Milestone (early)	▲	Milestone TBD	▲	Approved Milestone (delay)

2011 Install Rate vs. Plan - Weekly Meter Totals

2011 target : 2.0M

Total SM Inception to date meters in service: 8,348,294





2011 Budget Status – Expenditures by Workstream

#	Work Stream	Current Month - July			Year to Date - July			Annual Budget	Inception to Date Actual	#
		Budget	Actual	Variance	Budget	Actual	Variance			
A. Capital (000s)										
1	BUSINESS OPERATIONS (PMO)	\$302	\$16	\$286	\$2,294	\$1,409	\$885	\$3,833	\$47,738	1
2	SM OPERATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,305	2
3	SM FIELD DELIVERY	\$10,735	\$7,556	\$3,180	\$69,137	\$56,472	\$12,664	\$116,594	\$367,729	3
4	SM SOLUTIONS	\$5,781	\$2,900	\$2,881	\$39,138	\$38,662	\$476	\$72,168	\$969,517	4
5	IT	\$1,756	\$1,638	\$119	\$16,756	\$16,257	\$499	\$27,038	\$360,793	5
6	Capital Total:	\$18,575	\$12,109	\$6,466	\$127,324	\$112,801	\$14,524	\$219,633	\$1,757,081	6
B. Expense (000s)										
7	BUSINESS OPERATIONS (PMO)	\$389	\$59	\$329	\$2,343	\$760	\$1,583	\$3,164	\$25,575	7
8	SM OPERATIONS	\$161	(\$42)	\$203	\$1,998	\$1,045	\$954	\$2,730	\$56,671	8
9	SM CHANGE MANAGEMENT	\$3,936	\$193	\$181	\$3,196	\$2,175	\$1,021	\$5,043	\$14,754	9
10	CUSTOMER	\$3,274	\$2,181	\$1,094	\$27,007	\$19,162	\$7,845	\$36,766	\$87,830	10
11	SM FIELD DELIVERY	\$275	\$17	\$258	\$1,692	\$2,513	(\$821)	\$2,117	\$17,757	11
12	SM SOLUTIONS	\$5	\$213	(\$208)	\$8,989	\$14,910	(\$5,921)	\$8,981	\$66,617	12
13	IT	\$382	\$242	\$140	\$3,169	\$1,123	\$2,046	\$5,946	\$131,968	13
14	Expense Total:	\$8,422	\$2,862	\$1,997	\$48,394	\$41,687	\$6,707	\$64,747	\$401,171	14
C. Total: Capital + Expense (000s)										
15	BUSINESS OPERATIONS (PMO)	\$691	\$75	\$616	\$4,637	\$2,169	\$2,468	\$6,997	\$73,313	15
16	SM OPERATIONS	\$161	(\$42)	\$203	\$1,998	\$1,045	\$954	\$2,730	\$67,976	16
17	SM CHANGE MANAGEMENT	\$3,936	\$193	\$181	\$3,196	\$2,175	\$1,021	\$5,043	\$14,754	17
18	CUSTOMER	\$3,274	\$2,181	\$1,094	\$27,007	\$19,162	\$7,845	\$36,766	\$87,830	18
19	SM FIELD DELIVERY	\$11,010	\$7,572	\$3,438	\$70,828	\$58,985	\$11,843	\$118,711	\$385,485	19
20	SM SOLUTIONS	\$5,785	\$3,112	\$2,673	\$48,127	\$53,572	(\$5,445)	\$81,150	\$1,036,133	20
21	IT	\$2,139	\$1,880	\$259	\$19,925	\$17,380	\$2,545	\$32,983	\$492,761	21
22	Capital + Expense Total:	\$26,997	\$14,971	\$8,463	\$175,718	\$154,488	\$21,230	\$284,380	\$2,158,252	22

Year-to-Date Variance Explanations:

Favorable YTD capital variance (\$14.5M) primarily due to fewer meter/module installations (#3). A workforce resource plan is being developed to minimize overall project costs while seeing if it can also ramp-up the number of installations in the coming months.

Favorable YTD expense variance (\$6.7M) due to timing associated with: 1) underruns in Customer of \$7.8M (#10) and four additional workstreams totaling \$5.6M (#7, #8, #9 and #13), partially offset by a greater number of 1st generation SmartMeter early retirements and reclass from capital to expense than planned for Q1 (#12).

SmartMeter Balancing Account (SBA) Credits *

#	(\$ in thousands)	Actual				Preliminary Forecast												ITD Actual	#	
		2007	2008	2009	2010	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
1	Activated Meter Benefits:	\$ 111	\$ 4,705	\$ 26,055	\$ 56,313	\$ 1,884	\$ 1,939	\$ 1,977	\$ 2,035	\$ 2,072	\$ 2,113	\$ 2,118	\$ 2,123	\$ 2,129	\$ 2,134	\$ 2,139	\$ 2,144	\$ 101,321	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	\$ 1,884	\$ 1,939	\$ 1,977	\$ 2,035	\$ 2,072	\$ 2,113	\$ 2,118	\$ 2,123	\$ 2,129	\$ 2,134	\$ 2,139	\$ 2,144	\$ 117,571	3	
4	2011 Cumulative Actual + Forecast:					\$ 1,884	\$ 3,823	\$ 5,800	\$ 7,835	\$ 9,907	\$ 12,020	\$ 14,138	\$ 16,262	\$ 18,391	\$ 20,524	\$ 22,663	\$ 24,807		4	

2011 Benefits, Budget vs. Actual and Forecast **

#	(\$ in thousands)	2011												#						
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec							
5	Budgeted Benefits:																			
	Monthly	\$ 2,112	\$ 2,236	\$ 2,287	\$ 2,372	\$ 2,398	\$ 2,429	\$ 2,552	\$ 2,636	\$ 2,730	\$ 2,822	\$ 2,907	\$ 3,057							5
6	Cumulative	\$ 2,112	\$ 4,349	\$ 6,636	\$ 9,008	\$ 11,406	\$ 13,834	\$ 16,387	\$ 19,023	\$ 21,753	\$ 24,575	\$ 27,481	\$ 30,538							6
7	Actual / Current Forecast:																			
	Monthly	\$ 2,544	\$ 2,581	\$ 2,135	\$ 2,523	\$ 2,691	\$ 2,699	\$ 2,619	\$ 2,636	\$ 2,730	\$ 2,822	\$ 2,907	\$ 3,057							7
8	Cumulative	\$ 2,544	\$ 5,125	\$ 7,260	\$ 9,783	\$ 12,474	\$ 15,174	\$ 17,792	\$ 20,428	\$ 23,158	\$ 25,980	\$ 28,887	\$ 31,944							8
9	YTD Variance	\$ 431	\$ 776	\$ 624	\$ 775	\$ 1,068	\$ 1,339	\$ 1,405	\$ 1,405	\$ 1,405	\$ 1,405	\$ 1,405	\$ 1,405							9

* 2011 SmartMeter Balancing Account (SBA) actual and forecast credits assumes 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

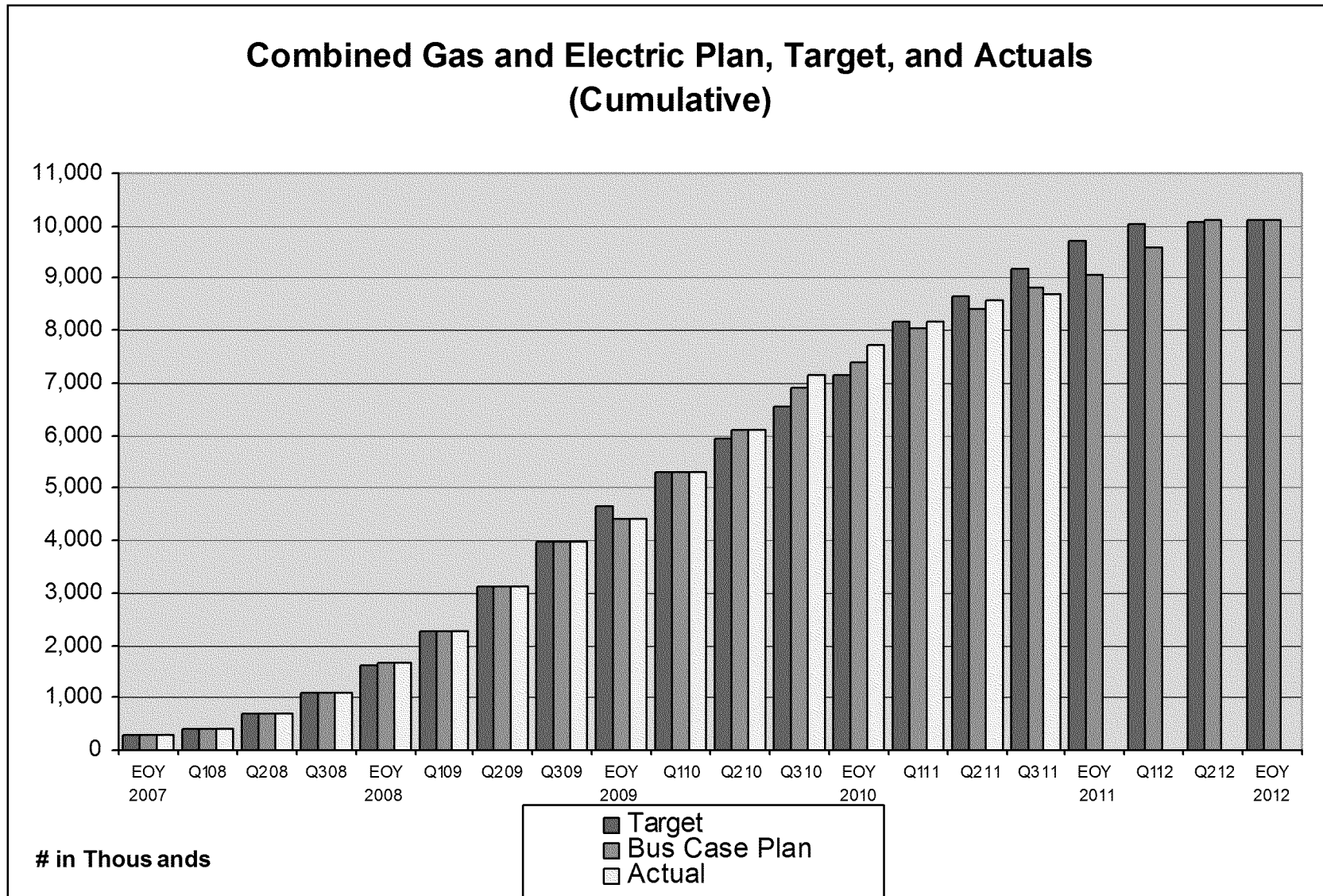
** 2011 benefits, budget versus actual and forecast, do not include meter reading costs and benefits which are being recorded in the Meter Reading Memorandum Account beginning on January 1, 2011.

Target Resolution Date	Issues	Impact	Status Summary
Ongoing	Increasing number of installations affected by access refusals	Increased costs, increase in unable to complete (UTC) backlog, customer change management	Working plan to engage customers across multiple communication channels to enhance customer understanding of SmartMeter™ journey and benefits. Customer option to temporarily delay SM upgrade being offered.
August 2011	Vendor Claims	Allocation of internal resources to address claims, delivery delays	Meeting with suppliers to address and resolve claims.

#	Created On	P	I	Score	Prev. Score	Risks	Impact	Status Summary	Assoc. Issue
1	3/22/2010	3	4	12	12	<p>SmartMeter supplier product and services cannot meet the deployment schedule.</p> <p>Key drivers: Remaining vendor development activities and resources to complete solutions, insufficient lead time for procurement due to design changes/schedule decisions.</p>	Deployment slow/stand down, resource planning ability, and additional costs	<p>Supplier solutions for non-standard deployment under development, testing and review. Management of vendor delivery timelines subject to ongoing joint project and vendor leadership review. Focus on remaining deployment dependencies being used to validate integration of vendor product deliveries.</p> <p>Finalization of network design/equipment mix to complete network deployment in process with suppliers.</p>	
2	4/4/2008	3	5	15	15	<p>Business processes enabled by new technology may not perform as intended.</p> <p>Key driver: Increased data volume and validation, underlying business processes.</p>	Billing errors, customer complaints, inability to meet endpoint deployment goals.	Continuing to monitor technology performance and identifying mitigations to resolve any identified technology performance issues. Meter transition process checks updated to include new integrated standards with Vendor for validating Network design, meter connectivity and read performance. Planning for Full –Deployment/Interval Billing via functionality deployments and additional process capability initiatives through 2011 underway.	

Metric	Key Performance Indicator	June '11			July '11			YTD			2011 Year End Forecast			Variance Analysis
		Actual	Month Results Target	Var	Actual	Month Results Target	Var	Actual	Target	Var	Forecast	Target	Var	
P1	SM Earnings Contribution (SM - estimated)	\$ 6.0	\$ 5.9	1.4%	\$ 5.9	\$ 6.0	-1.2%	41.1	40.4	1.7%	\$ 71.4	\$ 70.8	0.9%	
P2	OSHA Recordable Rate (YTD)	1.35	0.51		1.16	0.51					0.68	0.51		1 incident in June
P3	MVI Recordable Rate (YTD)	1.77	0.98		1.65	0.98					0.96	0.98		2 total incidents YTD
C1	Customers enrolled in SmartRate (net)	22,974	<i>(track only)</i>		52,012	<i>(track only)</i>								
C10	Customer Complaint Rate (escalated to CPUC)	0.021%	<i>(track only)</i>		0.020%	<i>(track only)</i>		0.046%	<i>(track only)</i>					
D1	Meters/Modules Installed - Electric & Gas	162,000	170,900	-5.2%	145,100	174,200	-16.7%	1,003,000	1,124,500	-10.8%	1,600,000	2,000,000	-20.0%	See Deployment status update on page 4
D2	Gas Network - DCUs Installed	7	-	N/A	20	52	-61.5%	103	203	-49.3%	193	617	-68.7%	No DCU planned for June, working with Gas Remediation teams to determine final supplemental designs
D3	Electric Network - Nodes Installed	217	190	14.2%	219	204	7.4%	834	1,356	-38.5%	1,910	4,417	-56.8%	See Deployment status update on page 4
D5	UTC Rate	8.8%	5.0%	76.0%	10.7%	5.0%	114.0%	9.2%	5.0%	84.0%	9.0%	5.0%	80.0%	See access issue on page 9
D7	UTCs open beyond 90 days	176,473	<i>(track only)</i>		164,354	<i>(track only)</i>								
D8	CPI - Endpoints	\$53.60	\$44.17	21.3%	\$37.95	\$44.17	-14.1%	\$44.49	\$44.17	0.7%	\$44.17	\$44.17	0.0%	See Deployment status update on page 4
D12	CPI Gas Network	\$4,752	\$1,505	215.7%	\$2,553	\$1,505	69.6%	\$2,639	\$1,505	75.3%	\$2,557	\$1,505	69.9%	Same as above
D13	CPI Electric Network	\$2,387	\$1,371	74.1%	\$2,204	\$1,371	60.8%	\$2,622	\$1,371	91.2%	\$2,148	\$1,371	56.7%	Same as above
D14	Total Weeks of Inventory on Hand - Electric Meters	7	8	-13.0%	5	6	-16.7%							
D15	Total Weeks of Inventory on Hand - Gas Modules	19	8	135.8%	16	6	166.7%							
O4	Transition Aging - Average Days	102	<i>(track only)</i>		142	<i>(track only)</i>		129	<i>(track only)</i>					
O5	SM Billing accuracy % (SA)	99.95%	99.85%	0.1%	99.95%	99.85%	0.1%	99.90%	99.85%	0.1%	99.88%	99.88%	0.0%	
O6	SM Billing timeliness % (SA)	99.91%	99.76%	0.2%	99.87%	99.76%	0.1%	99.86%	99.75%	0.1%	99.79%	99.79%	0.0%	
O7	SM % Bills not estimated (BSEGs)	99.93%	99.90%	0.0%	99.91%	99.90%	0.0%	99.90%	99.90%	0.0%	99.90%	99.90%	0.0%	
B2	Meters Activated - Electric & Gas (end of month)	8,514	<i>(track only)</i>		56,651	<i>(track only)</i>		479,253	<i>(track only)</i>					
B3	Remote Disconnect & Reconnect Transactions	28,251	<i>(track only)</i>		25,168	<i>(track only)</i>		175,015	<i>(track only)</i>					
B5	ITD Meter Reading HC reductions	519	<i>(track only)</i>		521	<i>(track only)</i>								

- ▶ **Combined Plan / Target / Actual Progress**
- ▶ **Contingency Reconciliation**
- ▶ **SmartMeter[™] Acronyms**



#s as of 07/31/11

SmartMeter Contingency Reconciliation	\$000s
Business Case Approved Contingency	177,753
Total Project Decision Requests Approved and Adopted by Steering Committee	177,753
Remaining Contingency	-
<i>Approved Project Decision Requests, by Approval Date</i>	
2007	\$ 106,329
2008	\$32,240
2009	\$20,313
2010	\$18,871
	<u>\$177,753</u>

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	OMT	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	Performance Engineering Company
EA	Ecologic Analytics	PMO	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
HC	Head Count	TBD	To Be Determined
IHD	In-Home Devices	TechArch	Technical Architecture
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
KC	Knowledge Center	UTC	Unable To Complete (meter installation)
KVAR	Kilo-Volts-Amps Reactive	YTD	Year-To-Date
LOB	Line of Business		