


PG&E
SmartMeter 

SmartMeter™
Steering Committee Update – September 2011

©2011 Pacific Gas and Electric Company. All rights reserved.

- ▶ **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[™] Acronyms**

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

Overall

Actions/Status

Overall

IT continues to execute against the plan produced as output from the Reconstruct effort. HAN enablement and Peak Time Rebate roadmaps are in progress.

Release 1 – Provide remote connect/disconnect (RCD) phase 2, model office, exception management for interval billing, and performance & scalability improvements.

Release 2 – Complete 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. RCD also now part of this release.

Release 3 – Improvements to meter data exception handling, NEMS deployment, scalability improvements for the data warehouse, and tracking of momentary outages.

Overall

- Releases are being worked in parallel.
- Holding to the overall scope/schedule/budget defined in Reconstruct.

Release 1

- Successful go-live for all components of Release 1 except RCD. No issues or problems to report for any of the deployed functionality.
- RCD functionality moved to Release 2. No budget impact.

Release 2

- Software development is complete and testing is in progress for all functions.
- Schedule and Resource challenges being actively mitigated.
- Currently on schedule for all in-scope functionality deployment by 9/30.

Release 3

- Build, test and deployment planning activities are in progress.
- Additional requirements for 3 functions (NEMS, MV90, Rate Check) are in design.
- Resource and environment contention issues being addressed.
- Currently on schedule for all in-scope functionality on 11/18.

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

Challenges

Endpoints

- 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

Electric Network

- Electric network is 100% complete, initial design.

Gas Network

- Complex/costly initial DCU installations remaining (new poles and third-party sites).

Actions/Status

Endpoints

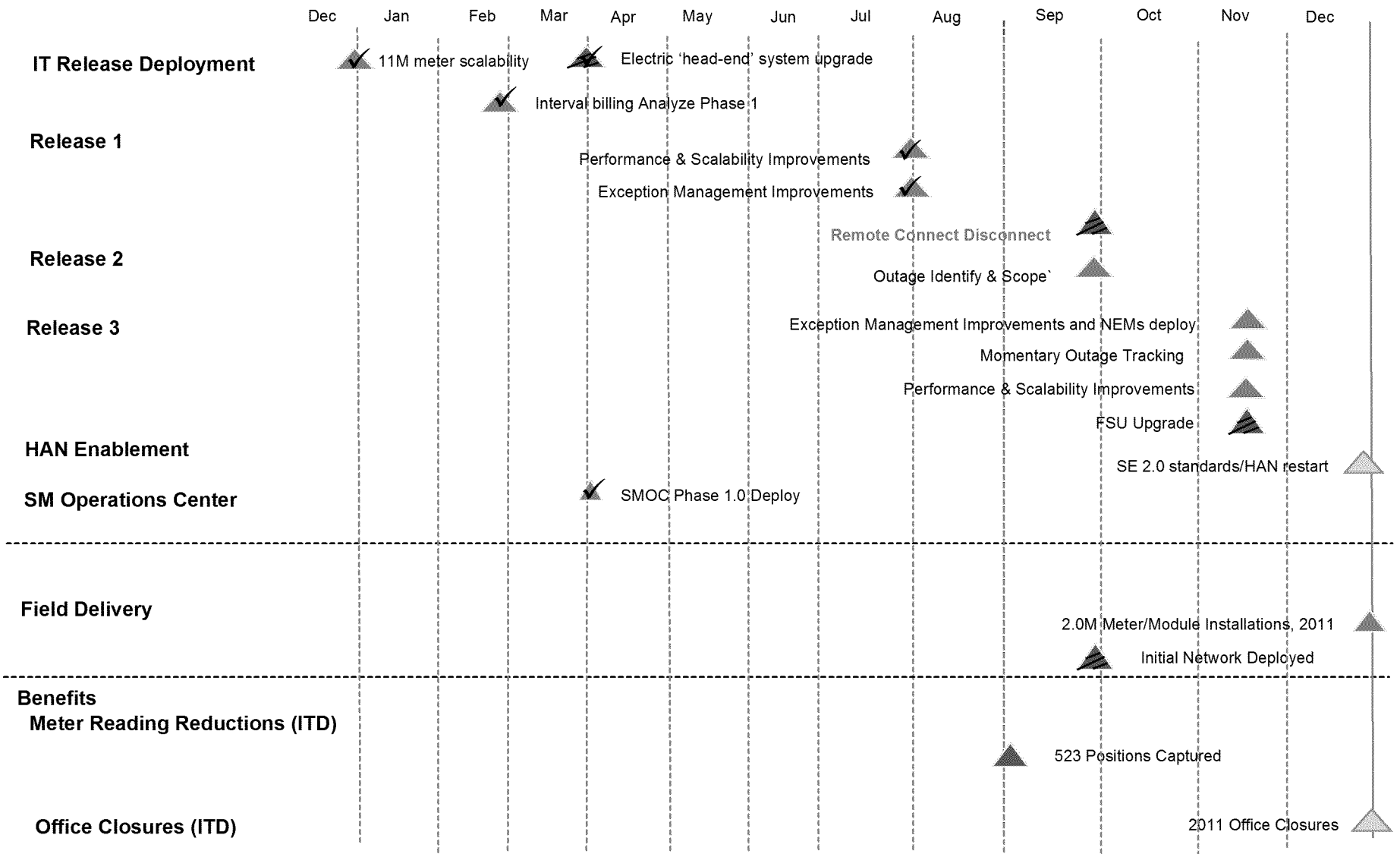
- Installation contractor preparing Rev 15 schedule which will increase scope and resources; still short of overall 2011 endpoint goal.
- Executing urban customer access, non-standard installation and customer outreach processes.
- Working with Sourcing to secure additional third party resources
- In process of securing outside vendor to deploy oil-filled gas rotary meter modules this year.

Electric Network

- Working with technology supplier and internal stakeholders to address network coverage in 'hard-to-reach' areas.
- Working to confirm with SMOC that electric network is 100% initial design complete.

Gas Network

- Working with business partners to transition network design management and installations to operations.
- 18 remaining: 3 pending installation, 15 pending transition due to complex installation (new poles, or third-party sites).



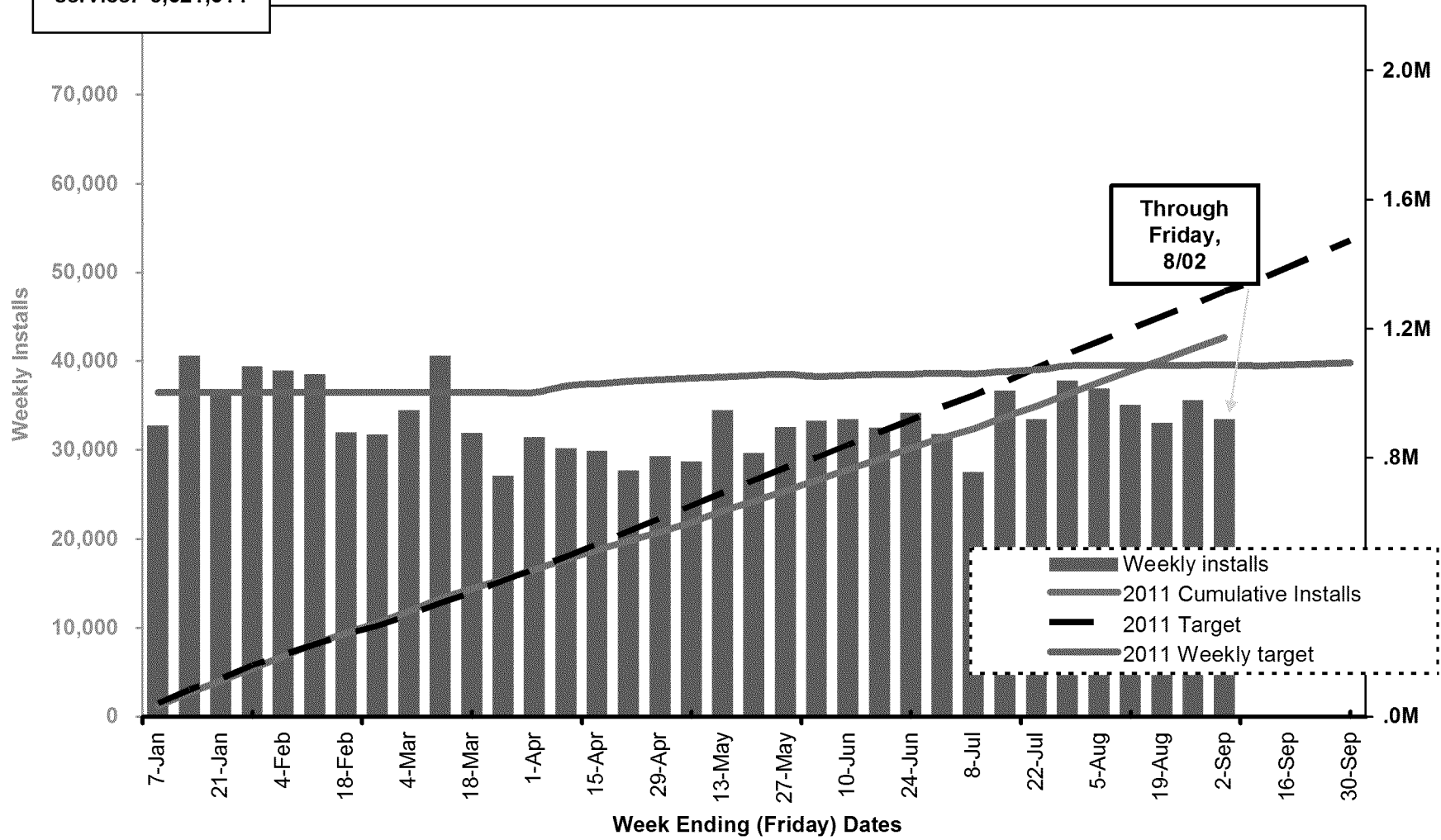
Legend

	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: 8,521,514



2011 Budget Status – Expenditures by Workstream

#	Work Stream	Current Month - August			Year to Date - August			Annual Budget	Inception to Date Actual
		Budget	Actual	Variance	Budget	Actual	Variance		
A. Capital (000s)									
1	BUSINESS OPERATIONS (PMO)	\$311	\$268	\$43	\$2,605	\$1,677	\$928	\$3,833	\$48,006
2	SM OPERATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,305
3	SM FIELD DELIVERY	\$11,033	\$8,552	\$2,481	\$80,169	\$65,024	\$15,146	\$116,594	\$376,281
4	SM SOLUTIONS	\$7,916	\$4,561	\$3,355	\$47,054	\$43,224	\$3,830	\$72,168	\$974,078
5	IT	\$1,663	\$800	\$863	\$18,419	\$17,057	\$1,361	\$27,038	\$361,593
6	Capital Total:	\$20,923	\$14,181	\$6,742	\$148,247	\$126,982	\$21,265	\$219,633	\$1,771,263
B. Expense (000s)									
7	BUSINESS OPERATIONS (PMO)	\$319	\$106	\$213	\$2,662	\$865	\$1,797	\$3,164	\$25,681
8	SM OPERATIONS	\$139	(\$73)	\$212	\$2,137	\$971	\$1,166	\$2,730	\$56,598
9	SM CHANGE MANAGEMENT	\$364	(\$99)	\$463	\$3,560	\$2,076	\$1,484	\$5,043	\$14,655
10	CUSTOMER	\$3,155	\$3,296	(\$141)	\$30,162	\$22,458	\$7,704	\$36,766	\$91,126
11	SM FIELD DELIVERY	\$275	\$10	\$265	\$1,967	\$2,523	(\$556)	\$2,117	\$17,767
12	SM SOLUTIONS	(\$8)	\$333	(\$341)	\$8,981	\$15,243	(\$6,262)	\$8,981	\$66,950
13	IT	\$338	\$56	\$283	\$3,507	\$1,179	\$2,328	\$5,946	\$132,024
14	Expense Total:	\$4,583	\$3,628	\$954	\$52,977	\$45,316	\$7,661	\$64,747	\$404,800
C. Total: Capital + Expense (000s)									
15	BUSINESS OPERATIONS (PMO)	\$631	\$374	\$257	\$5,267	\$2,542	\$2,725	\$6,997	\$73,687
16	SM OPERATIONS	\$139	(\$73)	\$212	\$2,137	\$971	\$1,166	\$2,730	\$67,903
17	SM CHANGE MANAGEMENT	\$364	(\$99)	\$463	\$3,560	\$2,076	\$1,484	\$5,043	\$14,655
18	CUSTOMER	\$3,155	\$3,296	(\$141)	\$30,162	\$22,458	\$7,704	\$36,766	\$91,126
19	SM FIELD DELIVERY	\$11,308	\$8,562	\$2,746	\$82,136	\$67,547	\$14,589	\$118,711	\$394,048
20	SM SOLUTIONS	\$7,908	\$4,895	\$3,013	\$56,035	\$58,467	(\$2,431)	\$81,150	\$1,041,029
21	IT	\$2,001	\$856	\$1,145	\$21,926	\$18,236	\$3,690	\$32,983	\$493,617
22	Capital + Expense Total:	\$25,506	\$17,810	\$7,696	\$201,224	\$172,298	\$28,926	\$284,380	\$2,176,064

Year-to-Date Variance Explanations:

Favorable YTD capital variance (\$21.3M) 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 (\$7.7M) due to timing associated with: 1) underruns in Customer of \$7.7M (#10) and four additional workstreams totaling \$6.8M (#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).

2011 Budget Status – Benefits

SmartMeter Balancing Account (SBA) Credits *

		Actual												Preliminary Forecast						
		(\$ in thousands)				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			ITD Actual
		2007	2008	2009	2010															
1	Activated Meter Benefits:	\$ 111	\$ 4,705	\$ 26,055	\$ 56,313	\$ 1,883	\$ 1,939	\$ 1,977	\$ 2,036	\$ 2,072	\$ 2,113	\$ 2,118	\$ 2,158	\$ 2,195	\$ 2,233	\$ 2,271	\$ 2,310	\$ 103,479	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	\$ 1,883	\$ 1,939	\$ 1,977	\$ 2,036	\$ 2,072	\$ 2,113	\$ 2,118	\$ 2,158	\$ 2,195	\$ 2,233	\$ 2,271	\$ 2,310	\$ 119,729	3	
4	2011 Cumulative Actual + Forecast:					\$ 1,883	\$ 3,822	\$ 5,799	\$ 7,835	\$ 9,906	\$ 12,020	\$ 14,138	\$ 16,296	\$ 18,491	\$ 20,724	\$ 22,995	\$ 25,305		4	

2011 Benefits, Budget vs. Actual and Forecast **

		(\$ in thousands)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Budgeted Benefits:														
5	Monthly	\$ 2,112	\$ 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
Actual / Current Forecast:														
7	Monthly	\$ 2,561	\$ 2,630	\$ 2,165	\$ 2,548	\$ 2,703	\$ 2,704	\$ 2,636	\$ 2,839	\$ 2,981	\$ 3,130	\$ 3,287	\$ 3,451	7
8	Cumulative	\$ 2,561	\$ 5,191	\$ 7,356	\$ 9,904	\$ 12,607	\$ 15,311	\$ 17,947	\$ 20,786	\$ 23,767	\$ 26,897	\$ 30,184	\$ 33,634	8
9	YTD Variance	\$ 449	\$ 842	\$ 720	\$ 896	\$ 1,202	\$ 1,477	\$ 1,560	\$ 1,763	\$ 2,014	\$ 2,322	\$ 2,702	\$ 3,096	9

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

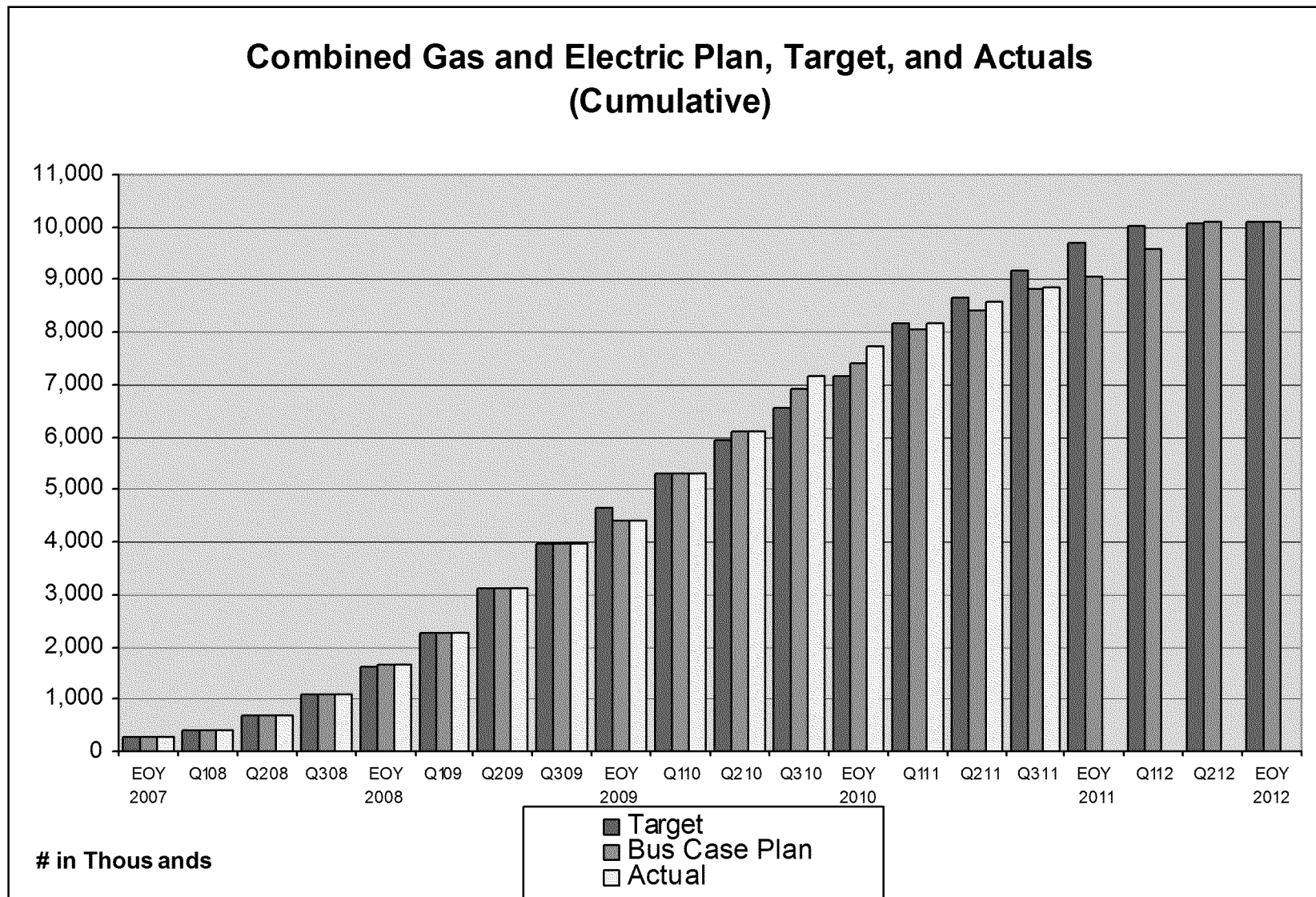
** 2011 benefits, budget versus actual and forecast, do not include meter reading costs and benefits which are being recorded in the Meter Reading Memorandum Account beginning on January 1, 2011.

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

#	Created On	I	P	Score	Prev. Score	Risk	Impact	Status Summary	Assoc. Issue
1	3/22/2010	5	3	15	12	<p>SmartMeter supplier product and services cannot meet the deployment schedule.</p> <p><i>Key drivers:</i> 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	5	3	15	15	<p>Business processes enabled by new technology may not perform as intended.</p> <p><i>Key drivers:</i> 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 Supplier 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.	
3	9/1/2011	5	3	15	N/A	<p>Network deployment and performance in 'hard-to-reach' areas can not be completed successfully.</p> <p><i>Key drivers:</i> Network performance in 'hard-to-reach' areas and availability of alternate solutions.</p>	Deployment delays, resources planning and increased costs.	Pursuing resolution of network coverage in 'hard-to-deploy' areas with technology supplier, including potential alternate network solutions.	
4	9/30/2011	5	4	20	N/A	<p>Increased forecast deployment costs and external resources requirement</p> <p><i>Key drivers:</i> Delays in deployment, resource availability and installation complexity</p>	Increased installation costs and contract resources required to complete remaining installations effectively and timely	Working with Sourcing and Suppliers to complete contracting process. Pursuing other identified opportunities to offset additional installation costs and increase installation efficiency within ongoing operations.	

Metric	Key Performance Indicator	July '11			August '11			YTD			2011 Year End Forecast			Variance Analysis
		Actual	Target	Var	Actual	Target	Var	Actual	Target	Var	Forecast	Target	Var	
P1	SM Earnings Contribution (\$M - estimated)	\$ 5.9	\$ 6.0	-1.2%	\$ 6.0	\$ 6.0	-0.3%	47.1	46.4	1.5%	\$ 71.4	\$ 70.8	0.9%	
P2	OSHA Recordable Rate (YTD)	1.16	0.51		1.01	0.51					0.68	0.51		1 incident in June
P3	MVI Recordable Rate (YTD)	1.65	0.98		2.28	0.98					1.52	0.98		1 incident in August, 3 total incidents YTD
C1	Customers enrolled in SmartRate (net)	23,019	<i>(track only)</i>		23,049	<i>(track only)</i>								
C2	# of CPUC escalated Customer Complaints	29			26			416	<i>(track only)</i>					
C10	Customer Complaint Rate (escalated to CPUC)	0.020%	<i>(track only)</i>		0.016%	<i>(track only)</i>		0.036%	<i>(track only)</i>					
D1	Meters/Modules Installed - Electric & Gas	145,100	174,200	-16.7%	159,100	175,100	-9.1%	1,162,300	1,299,600	-10.6%	1,600,000	2,000,000	-20.0%	See Deployment status update on page 4
D2	Gas Network - DCUs Installed	20	52	-61.5%	32	15	113.3%	133	218	-39.0%	193	617	-68.7%	Same as above
D3	Electric Network - Nodes Installed	219	204	7.4%	116	281	-58.7%	1,386	2,031	-31.8%	1,910	4,417	-56.8%	Same as above
D5	UTC Rate	10.7%	5.0%	114.0%	10.0%	5.0%	100.0%	9.3%	5.0%	86.0%	9.0%	5.0%	80.0%	See access issue on page 9
D7	UTCs open beyond 90 days	164,354	<i>(track only)</i>		168,796	<i>(track only)</i>								
D8	CPI - Endpoints	\$37.95	\$44.17	-14.1%	\$44.13	\$45.48	-3.0%	\$44.44	\$44.16	0.6%	\$46.39	\$44.16	5.0%	See Deployment status update on page 4
D12	CPI Gas Network	\$2,553	\$1,505	69.6%	\$1,462	\$1,605	-8.9%	\$2,396	\$1,573	52.3%	\$2,557	\$1,505	69.9%	Same as above
D13	CPI Electric Network	\$2,204	\$1,371	60.8%	\$3,059	\$1,330	130.0%	\$2,820	\$1,391	102.7%	\$2,148	\$1,371	56.7%	Same as above
D14	Total Weeks of Inventory on Hand - Electric Meters	5	6	-16.7%	2	6	-66.7%							Additional inventory anticipated in September
D15	Total Weeks of Inventory on Hand - Gas Modules	16	6	166.7%	15	6	150.0%							
O4	Transition Aging - Average Days	142	<i>(track only)</i>		110	<i>(track only)</i>		128	<i>(track only)</i>					
O5	SM Billing accuracy % (SA)	99.95%	99.85%	0.1%	99.94%	99.85%	0.1%	99.90%	99.85%	0.1%	99.88%	99.88%	0.0%	
O6	SM Billing timeliness % (SA)	99.87%	99.76%	0.1%	99.91%	99.76%	0.2%	99.86%	99.75%	0.1%	99.79%	99.79%	0.0%	
O7	SM % Bills not estimated (BSEGS)	99.91%	99.90%	0.0%	99.90%	99.90%	0.0%	99.90%	99.90%	0.0%	99.90%	99.90%	0.0%	
B2	Meters Activated - Electric & Gas (end of month)	56,651	<i>(track only)</i>		27,479	<i>(track only)</i>		506,732	<i>(track only)</i>					
B3	Remote Disconnect & Reconnect Transactions	25,168	<i>(track only)</i>		29,550	<i>(track only)</i>		204,565	<i>(track only)</i>					
B5	ITD Meter Reading HC reductions	521	<i>(track only)</i>		523	<i>(track only)</i>								

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



#s as of 08/31/11

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		