



PG&E  
**SmartMeter** 

**SmartMeter™**  
**Steering Committee Update – November 2011**

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- ▶ **Monthly Updates**
  - ▶ **Release Status Update**
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  - ▶ **Deployment Update**
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	EAC	Funded Budget	ITD	Scope	Schedule	Resources	Issues	Risks
IT Releases: October 31, 2011								
Release 1								
Release 2								
Release 3								

**Challenges**

**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 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 Secure Port and firmware push. Remote Connect/Disconnect phase 2 (RCD) and performance and scalability improvements are also 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

- Holding to the overall scope/schedule/budget defined in Reconstruct.
- Stabilization, testing and deployment work in process.

Release 1

- Deployment of Release 1 on 7/29/11 with no issues.

Release 2

- Deployment of all components as planned, with deployments completed on 9/30.
- Stabilization complete for all components except RCD which is still underway.

Release 3

- EM, CCO, NEMS/MV90, EON and Outage build and test complete.
- NEMS is behind schedule but plans for recovery are in progress.
- Deployment planning in progress for all functions.
- Currently on schedule for all in-scope functionality to deploy by 11/30.

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

### Challenges

### Actions/Status

#### 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

- Complete electric network deployment, initial design scope.
- Requirement for additional electric network to complete network coverage is subject to ongoing review.

#### Gas Network

- Complete gas network deployment, initial design scope.
- Requirement for additional gas network to complete network coverage is subject to ongoing review.

#### Endpoints

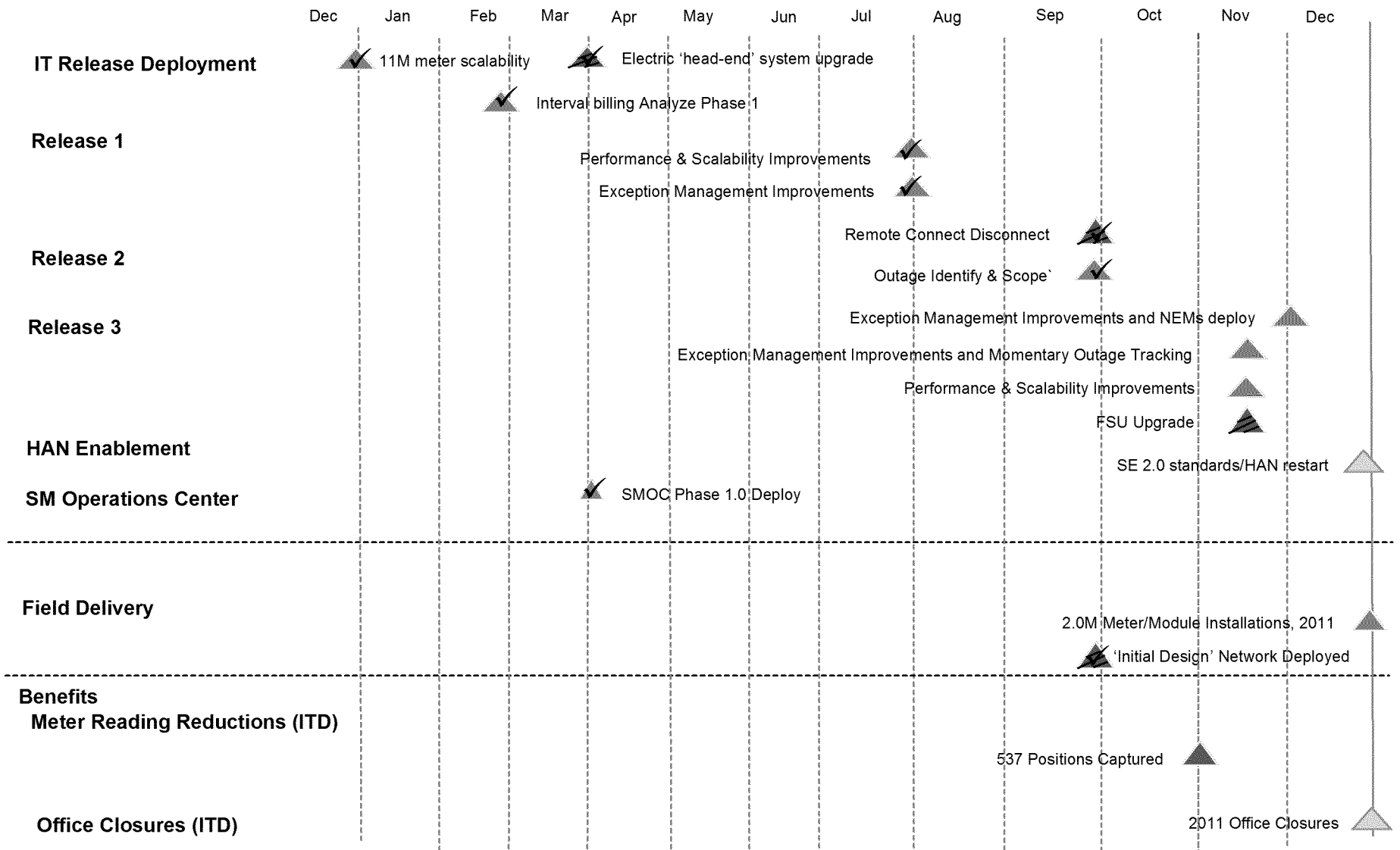
- Installation contractor preparing Rev 15 schedule which will increase scope and resources; still short of overall 2011 endpoint goal.
- Executing urban customer access, non-standard installation and customer outreach processes.
- Working with Sourcing to secure additional third party resources
- T-300 team assigned to deploy oil-filled gas rotary meter modules. Deployment began in late-September.

#### Electric Network

- Transition of Network Deployment and Operations to SmartMeter™ Operations Center completed.
- Electric network deployment, initial design scope, confirmed as complete.
- Working with technology supplier and internal stakeholders to address network coverage in 'hard-to-reach' areas.

#### Gas Network

- Transition of Network Deployment and Operations from to SmartMeter™ Operations Center completed.
- Gas network deployment, initial design scope, confirmed as complete.

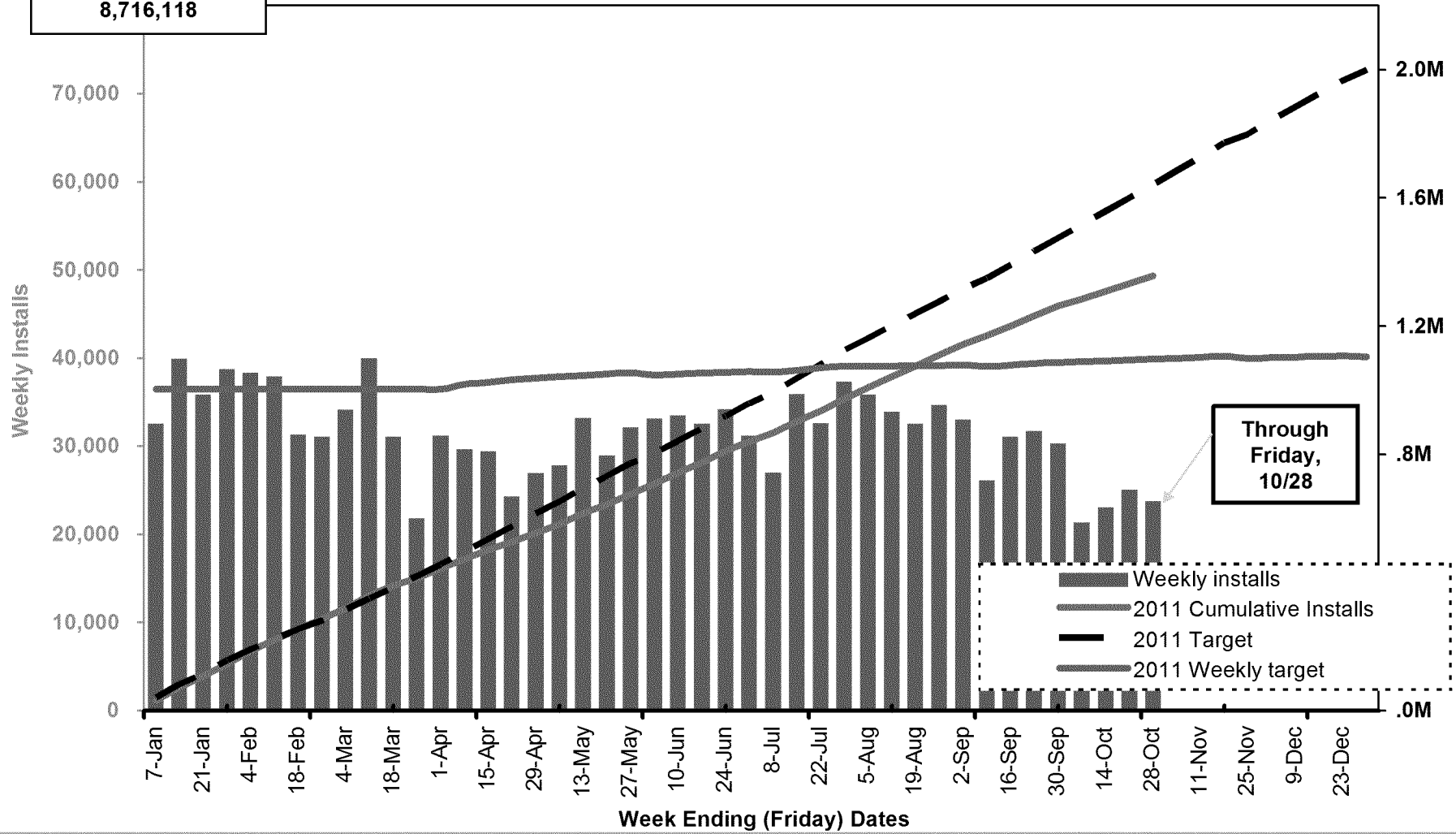


Legend					
▲	Baseline Milestone	✓	Milestone Met	▲	Forecasted Milestone (delay)
▲	Forecasted Milestone (early)	▲	Milestone TBD	▲	Approved Milestone (delay)

2011 Install Rate vs. Plan - Weekly Meter Totals

Total SM Inception to date meters (project scope) in service: 8,716,118

2011 target : 2.0M



## 2011 Budget Status – Expenditures by Workstream

#	Work Stream	Current Month - October			Year to Date - October			2011 Annual Budget	Inception to Date Actual	#
		Budget	Actual	Variance	Budget	Actual	Variance			
<b>A. Capital (000s)</b>										
1	BUSINESS OPERATIONS (PMO)	\$311	\$199	\$113	\$3,219	\$2,154	\$1,065	\$3,833	\$48,393	1
2	SM OPERATIONS	\$0	\$5	(\$5)	\$0	\$5	(\$5)	\$0	\$11,310	2
3	SM FIELD DELIVERY	\$10,715	\$7,035	\$3,680	\$101,821	\$78,650	\$23,171	\$116,594	\$389,907	3
4	SM SOLUTIONS	\$7,197	\$4,341	\$2,855	\$62,205	\$39,598	\$22,607	\$72,168	\$970,452	4
5	IT	\$2,485	\$1,626	\$859	\$22,838	\$24,442	(\$1,603)	\$27,038	\$368,978	5
6	<b>Capital Total:</b>	<b>\$20,708</b>	<b>\$13,205</b>	<b>\$7,502</b>	<b>\$190,083</b>	<b>\$144,848</b>	<b>\$45,235</b>	<b>\$219,633</b>	<b>\$1,789,039</b>	6
<b>B. Expense (000s)</b>										
7	BUSINESS OPERATIONS (PMO)	\$422	\$245	\$177	\$3,446	\$1,270	\$2,176	\$3,164	\$26,086	7
8	SM OPERATIONS	\$117	(\$4)	\$121	\$2,386	\$967	\$1,418	\$2,730	\$56,594	8
9	SM CHANGE MANAGEMENT	\$374	\$139	\$234	\$4,304	\$2,362	\$1,941	\$5,043	\$14,940	9
10	CUSTOMER	\$1,682	\$761	\$921	\$33,479	\$25,597	\$7,882	\$36,766	\$94,264	10
11	SM FIELD DELIVERY	\$38	\$71	(\$33)	\$2,042	\$2,862	(\$820)	\$2,117	\$18,106	11
12	SM SOLUTIONS	\$4	\$150	(\$146)	\$8,984	\$18,195	(\$9,211)	\$8,981	\$69,902	12
13	IT	\$823	\$245	\$578	\$4,669	\$1,614	\$3,055	\$5,946	\$132,459	13
14	<b>Expense Total:</b>	<b>\$3,459</b>	<b>\$1,607</b>	<b>\$1,852</b>	<b>\$59,309</b>	<b>\$52,868</b>	<b>\$6,441</b>	<b>\$64,747</b>	<b>\$412,352</b>	14
<b>C. Total: Capital + Expense (000s)</b>										
15	BUSINESS OPERATIONS (PMO)	\$733	\$443	\$290	\$6,665	\$3,424	\$3,241	\$6,997	\$74,479	15
16	SM OPERATIONS	\$117	\$1	\$115	\$2,386	\$972	\$1,413	\$2,730	\$67,904	16
17	SM CHANGE MANAGEMENT	\$374	\$139	\$234	\$4,304	\$2,362	\$1,941	\$5,043	\$14,940	17
18	CUSTOMER	\$1,682	\$761	\$921	\$33,479	\$25,597	\$7,882	\$36,766	\$94,264	18
19	SM FIELD DELIVERY	\$10,752	\$7,105	\$3,647	\$103,863	\$81,512	\$22,351	\$118,711	\$408,013	19
20	SM SOLUTIONS	\$7,201	\$4,491	\$2,710	\$71,189	\$57,792	\$13,396	\$81,150	\$1,040,353	20
21	IT	\$3,308	\$1,871	\$1,437	\$27,507	\$26,056	\$1,451	\$32,983	\$501,437	21
22	<b>Capital + Expense Total:</b>	<b>\$24,166</b>	<b>\$14,813</b>	<b>\$9,354</b>	<b>\$249,393</b>	<b>\$197,716</b>	<b>\$51,676</b>	<b>\$284,380</b>	<b>\$2,201,391</b>	22

### Year-to-Date Variance Explanations:

Favorable YTD capital variance (\$45.2M) primarily due to fewer meter/module installations (#3), along with a greater number of 1<sup>st</sup> generation SmartMeter early retirements and a journal entry correcting previous gas communication module purchase costs (#4).

Favorable YTD expense variance (\$6.4M) due to timing associated with: 1) underruns in Customer of \$7.9M (#10) and four additional workstreams totaling \$8.5M (#7, #8, #9 and #13), partially offset by a greater number of 1<sup>st</sup> generation SmartMeter early retirements and reclass from capital to expense than planned (#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	\$ 1,883	\$ 1,939	\$ 1,977	\$ 2,036	\$ 2,072	\$ 2,113	\$ 2,118	\$ 2,158	\$ 2,177	\$ 2,213	\$ 2,396	\$ 2,257	\$ 107,869	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	\$ 2,177	\$ 2,213	\$ 2,396	\$ 2,257	\$ 124,119	3
4	2011 Cumulative Actual + Forecast:					\$ 1,883	\$ 3,822	\$ 5,799	\$ 7,835	\$ 9,906	\$ 12,020	\$ 14,138	\$ 16,296	\$ 18,473	\$ 20,686	\$ 23,081	\$ 25,338		4

## 2011 Benefits, Budget vs. Actual and Forecast \*\*

#	(\$ in thousands)	2011 Benefits, Budget vs. Actual and Forecast **												#						
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct***	Nov	Dec							
5	<u>Budgeted Benefits:</u>																			
	Monthly	\$ 2,112	\$ 2,236	\$ 2,287	\$ 2,372	\$ 2,398	\$ 2,429	\$ 2,552	\$ 2,636	\$ 2,730	\$ (478)	\$ 1,807	\$ 2,257							5
6	Cumulative	\$ 2,112	\$ 4,349	\$ 6,636	\$ 9,008	\$ 11,406	\$ 13,834	\$ 16,387	\$ 19,023	\$ 21,753	\$ 21,275	\$ 23,081	\$ 25,338							6
7	<u>Actual / Current Forecast:</u>																			
	Monthly	\$ 2,538	\$ 2,607	\$ 2,143	\$ 2,526	\$ 2,681	\$ 2,681	\$ 2,613	\$ 2,817	\$ 2,827	\$ 3,660	\$ 3,110	\$ 3,421							7
8	Cumulative	\$ 2,538	\$ 5,146	\$ 7,288	\$ 9,814	\$ 12,495	\$ 15,176	\$ 17,790	\$ 20,606	\$ 23,433	\$ 27,094	\$ 30,203	\$ 33,624							8
9	YTD Variance	\$ 426	\$ 797	\$ 653	\$ 806	\$ 1,089	\$ 1,342	\$ 1,403	\$ 1,584	\$ 1,680	\$ 5,819	\$ 7,122	\$ 8,286							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.

\*\*\* Due to an adjustment made in October 2011 to true-up year-to-date budgeted benefits (line #5), a negative amount for the month resulted.

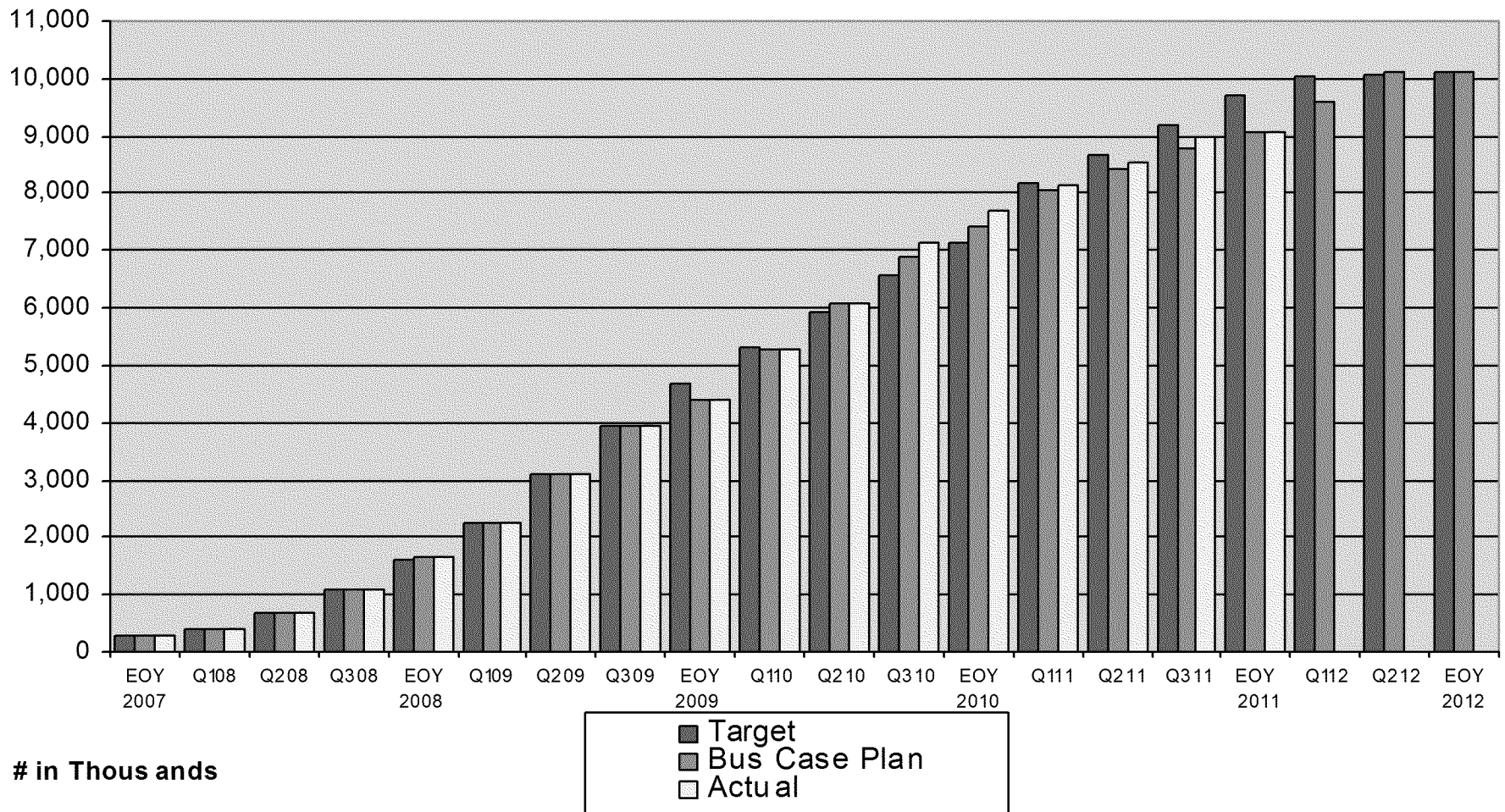


Target Resolution Date	Issue	Impact	Status Summary
Ongoing	Increasing number of installations affected by access refusals	Increased costs, increase in unable to complete (UTC) backlog, customer change management	Pursuing operational improvements to increase efficiency of UTC resolution. Ongoing engagement with customers across multiple communication channels to enhance customer understanding of SmartMeter™ journey and benefits. Customer option to temporarily delay SM upgrade being offered.
November 2011	Supplier 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	9/30/2011	5	4	20	20	<p>Increased forecast deployment costs and external resources requirement</p> <p><i>Key drivers:</i> Delays in deployment, resource availability and installation complexity</p>	<p>Increased installation costs and contract resources required to complete remaining installations effectively and timely</p>	<p>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.</p>	
2	3/22/2010	5	3	15	15	<p>SmartMeter supplier product and services cannot meet the deployment schedule.</p> <p><i>Key drivers:</i> Remaining supplier development activities and resources to complete solutions, insufficient lead time for procurement due to design changes/schedule decisions.</p>	<p>Deployment slow/stand down, resource planning ability, and additional costs</p>	<p>Supplier solutions for non-standard deployment under development, testing and review. Management of supplier delivery timelines subject to ongoing joint project and supplier leadership review. Focus on remaining deployment dependencies being used to validate integration of supplier product deliveries.</p>	
3	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>	<p>Billing errors, customer complaints, inability to meet endpoint deployment goals.</p>	<p>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.</p>	
4	9/1/2011	5	3	15	15	<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>	<p>Deployment delays, resources planning and increased costs.</p>	<p>Pursuing resolution of network coverage in 'hard-to-reach' areas with technology supplier, including potential alternate network solutions.</p> <p>Finalization of network design/equipment mix to complete network deployment in process with suppliers.</p>	

Metric	Key Performance Indicator	September '11			October '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	\$ 6.1	-1.1%	\$ 6.0	\$ 6.1	-2.4%	59.2	58.6	1.0%	\$ 71.4	\$ 70.8	0.9%	
P2	OSHA Recordable Rate (YTD)	1.06	0.51		0.97	0.51					0.81	0.51		1 incident in June
P3	MVI Recordable Rate (YTD)	2.13	0.98		3.13	0.98					2.61	0.98		1 incident in October, 4 total incidents YTD
C1	Customers enrolled in SmartRate (net)	23,111	(track only)		22,440	(track only)								
C2	# of CPUC escalated Customer Complaints	11			15			442	(track only)					
C10	Customer Complaint Rate (escalated to CPUC)	0.008%	(track only)		0.015%	(track only)		0.032%	(track only)					
D1	Meters/Modules Installed - Electric & Gas	130,310	175,100	-25.6%	97,000	175,100	-44.6%	1,368,000	1,474,685	-7.2%	1,600,000	2,000,000	-20.0%	See Deployment status update on page 4
D2	Gas Network - DCUs Installed	11	15	-26.7%							143	617	-76.8%	Additional network above initial design scope no longer planned, based upon alternate technology solutions.
D3	Electric Network - Nodes Installed	2	281	-99.3%							1,390	4,412	-68.5%	
D5	UTC Rate	11.3%	5.0%	126.0%	12.5%	5.0%	150.0%	9.9%	5.0%	98.0%	0	5.0%	98.0%	See access issue on page 9
D7	UTCs open beyond 90 days	171,676	(track only)		183,458	(track only)								
D8	CPI - Endpoints	\$42.00	\$45.48	-7.7%	\$53.00	\$45.48	16.5%	\$44.84	\$43.70	2.6%	\$46.39	\$44.16	5.0%	See Deployment status update on page 4
D12	CPI Gas Network	\$2,564	\$1,436	78.6%							\$1,799	\$1,505	19.5%	Additional network above initial design scope no longer planned, based upon alternate technology solutions.
D13	CPI Electric Network	\$77,703	\$1,226	6237.9%							\$2,948	\$1,371	115.0%	
D14	Total Weeks of Inventory on Hand - Electric Meters	8	6	33.3%	9	6	58.2%							
D15	Total Weeks of Inventory on Hand - Gas Modules	14	6	133.3%	17	6	178.7%							
O4	Transition Aging - Average Days	221	(track only)		158	(track only)		142	(track only)					
O5	SM Billing accuracy % (SA)	99.93%	99.86%	0.1%	99.94%	99.87%	0.1%	99.92%	99.85%	0.1%	99.88%	99.88%	0.0%	
O6	SM Billing timeliness % (SA)	99.93%	99.77%	0.2%	99.94%	99.78%	0.2%	99.88%	99.75%	0.1%	99.79%	99.79%	0.0%	
O7	SM % Bills not estimated (BSEGs)	99.91%	99.90%	0.0%	99.94%	99.90%	0.0%	99.91%	99.90%	0.0%	99.90%	99.90%	0.0%	
B2	Meters Activated - Electric & Gas (end of month)	15,531	(track only)		89,635	(track only)		611,898	(track only)					
B3	Remote Disconnect & Reconnect Transactions	28,767	(track only)		45,469	(track only)		278,801	(track only)					
B5	ITD Meter Reading HC reductions	530	(track only)		537	(track only)								

## Combined Gas and Electric Plan, Target, and Actuals (Cumulative)



#s as of 10/31/11

<b>SmartMeter™ Contingency Reconciliation</b>	<b><u>\$'000s</u></b>
Business Case Approved Contingency	177,753
Total Approved Decision Requests Approved and Adopted by Steering Committee	177,753
<i>Remaining Contingency</i>	
Approved Project Decision Requests, by Approval Date	
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		