# 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

Dated: June 28, 2011

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

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

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Pacific Gas and Electric Company (PG&E) submits the attached May 2011

"SmartMeter<sup>TM</sup> 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.

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The attached report complies with that decision and the Commissioner's Ruling.

Respectfully Submitted,

ANN H. KIM CHONDA J. NWAMU

By: /s/
CHONDA J. NWAMU

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Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

Dated: June 28, 2011

# Smart/Meter\*

SmartMeter<sup>™</sup>
Steering Committee Update – May 2011

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- 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>™</sup> Acronyms



### **Release Status Update**

	EAC	Funded Budget*	ITĐ	Scope	Schedule	Resources	Issues	Risks
IT Releases, April 2011								
Release 1								
Release 2								
Release 3								

#### Overall Actions/Status

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ISTS has reorganized its ongoing project work into 3 releases. HAN enablement and Peak Time Rebate roadmaps are in progress.

<u>Release 1</u> – Provide Remote Connect/Disconnect (phase 2), model office and exception management for interval billing, and additional performance & scalability improvement.

<u>Release 2</u> – Completion of the integration of SmartMeter<sup>TM</sup> data to the existing Outage systems. This includes using the meter "Last Gasps", "Restoration" and meter ping capabilities.

<u>Release 3</u> – Improvements to meter data exception handling, NEMs Deployment, Scalability improvements for the data warehouse, and tracking of momentary outages.

#### Overall

- New Project Roadmap has been created.
- Transformer Load Management was successfully deployed on 04/22/11.
- Smart Energy 2.0 standards delayed.

#### Release 1

- Development activities underway.
- Staffing model and resource acquisition is in process.
- Targeted deployment: July, 2011.

#### Release 2

- Design activities underway.
- Targeted deployment: September, 2011.

#### Release 3

- Analyze phase completed. Design phase activities pending.
- Targeted deployment: November 2011.

\*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.



## **Deployment Status Update**

	EAC	2011 Forecast (2011 EOY / CPI)	Scope	Schedule	Resources	Issues	Risks
Deployment: April, 2011							
Endpoints (2011 YTD)							
Gas Network (2011 YTD)							
Electric Network (2011 YTD)							117 117 117

#### Challenges Actions/Status

years						
-	13	1	n	$\cap$	ın	its

- Base target scheduled to complete 2 Million Meter Installations in 2011.
- Increased rate of UTCs versus planned.

#### Electric Network

- · Increase in more complex (potential transformer) installation type required.
- Inclement weather preventing installations; material delivery for PT installations.
- Scope not well defined for supplemental (as needed) network installations to support transition of meters to billing.

#### Gas Network

- Higher than expected initial DCU installation (initial scope for 2011 90 to 119)
- Lower than expected supplemental DCU requests received.

#### **Endpoints**

- Once revised schedule is released and finalized, the endpoint targets will be adjusted to reflect installable meters in 2011.
- Executing urban customer access, non-standard installation and customer outreach processes. Obtaining additional vendor resources to support the UTC effort. Also increase the number of attempts to complete UTC related work. Finalized correction action still under discussion.

#### Electric Network

- Reviewing locations to find alternates to more complex installations.
- Using remediation trends, will plan installation work based on endpoint saturation as defined by revised endpoint schedule

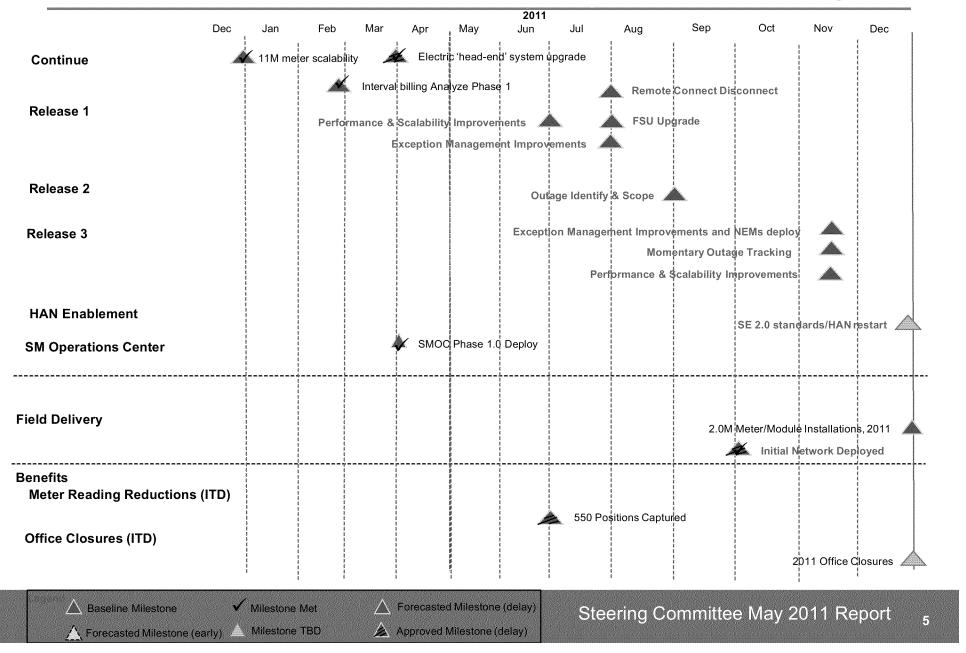
#### Gas Network

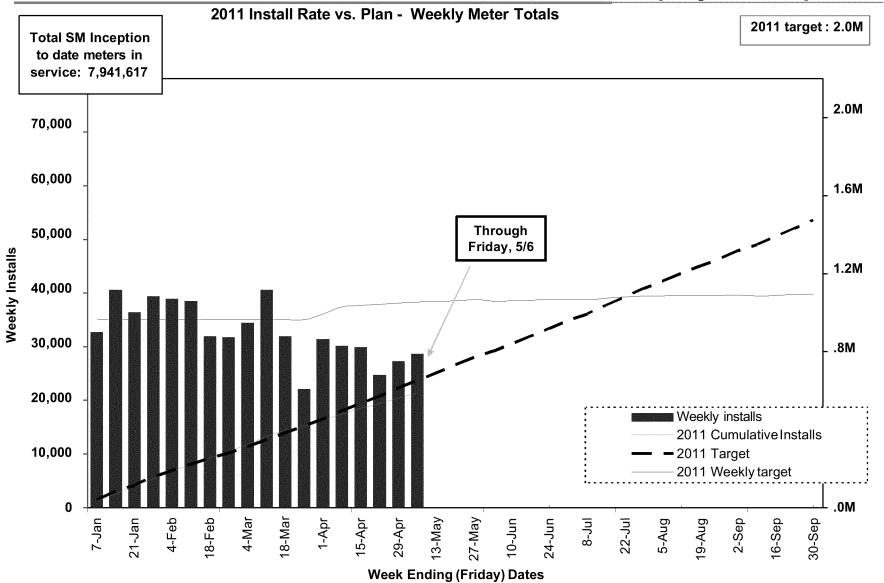
- Increase in scope due to 2010 initial DCU installations pushed into 2011 due to weather, complexity of installation type and design review
- Forecast assumed higher demand for supplemental DCU devices. Forecast adjusted to compensate for lack of request volume January-April.



As of 4/30/11

## **Schedule Update**







# 2011 Budget Status – Expenditures by Workstream

		Our	ert Month- A	oril lino	Yea	irto Date - Ap	nil	Annual	Inception to	
#	Work Stream	Budget	Actual	Variance	Budget	Actual	Variance	Budget	Date Actual	#
	A.Capital (000s)				•				**************************************	
1	BUSINESS OPERATIONS (PMO)	\$398	\$310	\$87	\$1,414	\$982	\$432	\$3,833	\$47,311	1
2	SM OPERATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,305	2
3	SM FIELD DELIMERY	\$10,443	\$8,521	\$1,922	\$37,163	\$30,393	\$8,770	\$116,594	\$341.650	3
4	SM SOLUTIONS	<b>\$4,60</b> 3	\$400	\$4,203	\$23,242	\$23,307	(\$66)	\$72,168	\$954.064	4
5	π	\$1,886	\$1,665	\$221	\$9,428	\$9,597	(\$169)	\$27,038	\$354,133	5
6	Capital Total:	\$17,331	\$10,896	\$6,434	\$71,247	\$64279	\$6,968	\$219,633	\$1,708,463	6
	B.Expense (000s)									
7	BUSINESS OPERATIONS (PMO)	\$321	\$93	\$228	\$1,353	\$432	\$921	\$3,164	\$25,248	7
8	SM OPERATIONS	\$350	\$149	\$202	\$1,409	\$868	<b>9</b> 541	\$2,730	\$56,495	8
9	SM CHANGEMANAGEMENT	\$471	\$299	\$172	\$1,891	\$1,330	\$560	\$5,043	\$13,908	9
10	CUSTOMER	\$3,944	\$2,571	\$1,373	\$18,055	\$9,709	\$8,346	\$36,766	\$78,376	10
11	SM FIELD DELIVERY	\$350	\$427	(\$77)	\$847	\$1,892	(\$1,046)	\$2,117	\$17,136	11
12	SM SOLUTIONS	\$844	\$2,701	(\$1,857)	\$8,697	\$12,873	(\$4,176)	\$8,981	\$64,642	12
13	π	\$536	\$238	\$299	\$1,355	\$759	\$596	\$5,946	\$131,604	13
14	Expense Total:	\$6,816	\$6,478	\$339	\$33,608	\$27,864	\$5,743	\$64,747	\$387,409	14
	C. Total: Capital + Expense (000s)									
15	BUSINESS OPERATIONS (PMO)	\$718	<b>\$4</b> 03	<b>\$</b> 315	\$2,767	\$1,415	\$1,353	\$6,997	\$72,559	15
16	SM OPERATIONS	\$350	\$149	\$202	\$1,409	\$868	\$541	\$2,730	967,800	16
17	SM CHANGE MANAGEMENT	9471	\$299	\$172	\$1,891	\$1,330	\$560	\$5,043	\$13,908	17
18	CUSTOMER	\$3,944	\$2,571	\$1,373	\$18,055	\$9,709	\$8,346	\$36,766	\$78,376	18
19	SM FIELD DELIMERY	\$10,793	\$8,948	\$1,846	\$38,010	\$32,285	\$5,725	\$118,711	\$358,786	19
20	SM SOLUTIONS	\$5,447	\$3,101	\$2,346	\$31,939	\$36,180	(\$4,241)	\$81,150	\$1,018,706	20
21	π	\$2,423	\$1,903	\$520	\$10,783	\$10,356	\$427	\$32,983	\$485,737	21
22	Capital + Expense Total:	\$24,147	\$17,374	\$8,773	\$104,854	\$92,143	\$12,711	\$284,380	\$2,095,872	22

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

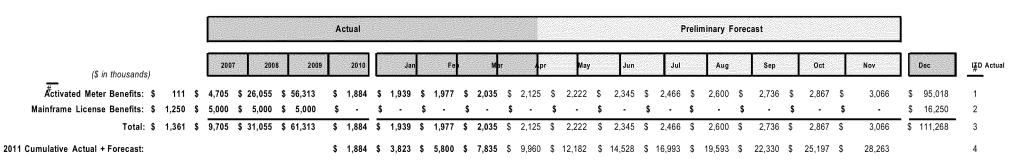
Favorable YTD capital variance (\$7.0M) primarily due to fewer meter/module installations (#3). A workforce resource plan is being solidified to ramp-up the number of installations in the coming months in order to meet the 2 million target for 2011.

Favorable YTD expense variance (\$5.7M) due to timing associated with: 1) underruns in Customer of \$8.3M (#10) and four additional workstreams totaling \$2.6M (#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).



# 2011 Budget Status – Benefits

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



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

	(\$ in thousands)	Jan		Feb		Mar		Ар		May	1	Jur	Jı	1	Au	9	Se	p	o	ct	No	)V	1	Dec	
	<b>Budgeted Benefits:</b>																								
5	Monthly	\$	2,1	12 \$	2,2	36	\$ 2	2,287	\$	2,372	\$	2,398	\$ 2,429	\$	2,552	\$	2,636	\$	2,730	\$	2,822	\$	2,907	\$	3,057
6	Cumulative	\$	2,1	2 \$	4,3	49	\$ (	6,636	\$	9,008	\$ 1	1,406	\$ 13,834	\$	16,387	\$	19,023	\$	21,753	\$	24,575	\$	27,481	\$	30,538
	Actual / Current Forecast:																								
7	Monthly	\$	2,5	13 \$	2,5	81	\$ 2	2,135	\$	2,523	\$	2,389	\$ 2,420	\$	2,471	\$	2,517	\$	2,572	\$	2,622	\$	2,666	\$	2,767
8	Cumulative	\$	2,5	3 \$	5,1	24	\$ 7	7,259	\$	9,782	\$ 1	2,171	\$ 14,591	\$	17,062	\$	19,579	\$	22,151	\$	24,773	\$	27,439	\$	30,206
q	YTD Variance	•	4	1 9	. 7	75	\$	623	s	774	\$	765	\$ 756	\$	675	\$	556	\$	398	\$	198	\$	(43)	\$	(333)

<sup>\* 2011</sup> SmartMeter Balancing Account (SBA) actual and forecast credits incorporates the approved 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

<sup>2011</sup> 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 <sup>TM</sup> journey and benefits. Customer option to temporarily delay SM upgrade being offered.
Ongoing	Meter defect affecting approximately 1,600 residential electric accounts. These meters occasionally run fast in a narrow band of high temperatures.	Inaccurate bills for the affected accounts.	Affected meters being replaced at no cost to the customers. Full refunds of over-billed amounts with interest are being issued to affected customers, along with a \$25 inconvenience payment. Customers are also being offered a free in-home energy audit.



#	Created On	Р	ı	Score	Prev. Score	Risks	Impact	Status Summary	Assoc. Issue
1	3/22/2010	3	4	12	16	Vendor SmartMeter products cannot be delivered to meet the deployment schedule.  Key drivers: Remaining vendor development activities and resources to complete solutions, insufficient lead time for procurement due to design changes/schedule decisions.	Deployment slow/stand down, resource planning ability, and additional costs	Vendor 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.  Finalization of network design/equipment mix to complete network deployment in process with vendors.	
2	4/4/2008	က	5	15	15	Business processes enabled by new technology may not perform as intended. Key driver: Increased data volume and validation, underlying business processes.	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.	



# **Program Metrics**

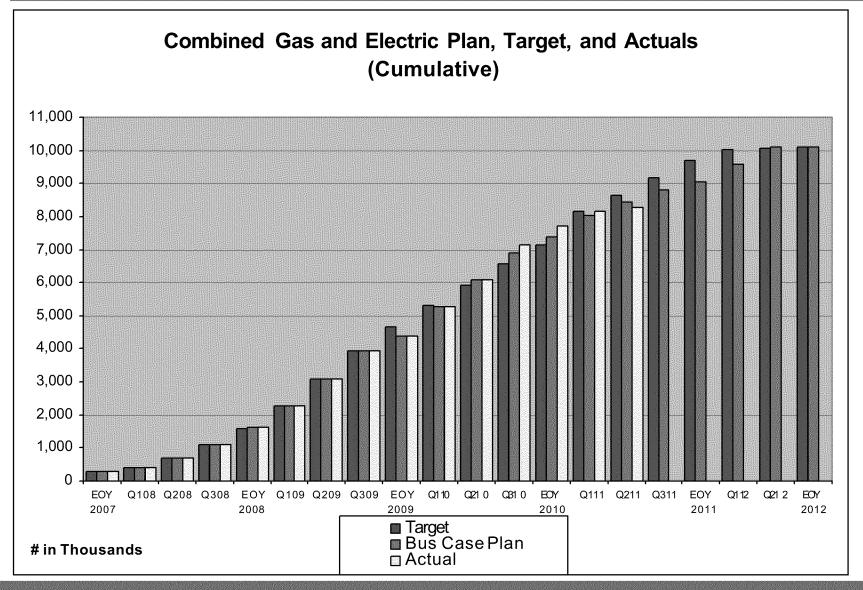
Metric	Key Performance Indicator	Mar '11 Actual	Month Results Target Var	Apr '11 Actual		ults Var	Actual	YTD Target Var	2011 Ye Forecast	ar End Forecast Target Var	Variance Analysis
P1	SM Eamings Contribution (\$M - estimated)	\$ 5.9	\$ 5.8 1.7%	\$ 5.9	\$ 5.8	1.7%	23.4	22.8 2.6%	\$ 71.3	\$ 70.8 0.7%	
P2	OSHA Recordable Rate (YTD)	-	0.49	-	0.51				-	0.51	
P3	MVI Recordable Rate (YTD)	1.37	0.98	1.37	0.98				0.98	0.98	1 MVI reported in February
C1	Customers enrolled in SmartRate (net)	23,577	(track only)	23,437	(track only)						
C10	Customer Complaint Rate (escalated to CPUC)	0.049%	(track only)	0.042%	(track only)		0.046%	(track only)			
D1	Meters/Modules Installed - Electric & Gas	147,984	161,414 -8.3%	122,600	165,200	25.8%	567,300	614,100 -7.6%	2,000,000	2,000,000	Fewer than planned installation contractor resources
D2	Gas Network - DCUs Installed	7	35 -80.0%	38	70 -4	45.7%	73	105 -30.5%	350	617 -43.3%	Fewer Network installations initiated than planned; Network units at completion under review
D3	Electric Network - Nodes Installed	106	194 -45.4%	195	293	33.4%	720	968 -25,6%	4,075	4,417 47.7%	Fewer Network installations initiated than planned; Network units at completion under review
D5	UTC Rate	9.7%	5.0% 94.0%	13.9%	5.0% 17	78.0%	8.5%	6.0% 41.7%	8.5%	6.0% 41.7%	See Access Issue page 9
D7	UTCs open beyond 90 days	159,649	(track only)	163,904	(track only)						
D8	CPI - Endpoints	\$45.67	\$44.17	\$54.07	\$44.17	22.4%	\$42.50	\$44.17	\$44.17	\$44.17 0.0%	See D1 above, review in progess
D12	CPI Gas Network	\$2,176	\$1,505	\$2,176	\$1,505 4	14.6%	\$2,557	\$1,505 69.9%	\$1,505	\$1,505	See D2 above, review in progess
D13	CPI Electric Network	\$3,828	\$1,371	\$3,045	\$1,371 12	22,1%	\$2,509	\$1,371 83.0%	\$1,371	\$1,371 0.0%	See D3 above, review in progess
D14	Total Weeks of Inventory on Hand - Electric Meters	24	6 300.0%	17	8 1	12.5%			Managaran		
D15	Total Weeks of Inventory on Hand - Gas Modules	20	6 233.3%	34	8 32	25.0%					
04	Transition Aging - Average Days	111	(track only)	153	(track only)		124	(track only)			
O5	SM Billing accuracy % (SA)	99.85%	99.84% 0.0%	99.93%	99.85%	0.1%	99.89%	99.88% 0.0%	99.88%	99.88% 0.0%	
O6	SM Billing timeliness % (SA)	99.91%	99.74% 0.2%	99.79%	99.75%	0.0%	99.85%	99.79% 0.1%	99.79%	99.79% 0.0%	
07	SM % Bills not estimated (BSEGs)	99.88%	99.90%	99.93%	99.90%	0.0%	99.89%	99.90% 0.0%	99.90%	99.90% 0.0%	Analysis in progress
B2	Meters Activated - Electric & Gas (end of month)	110,663	(track only)	73,200	(track only)		334,000	(track only)			
В3	Remote Disconnect & Reconnect Transactions	15,544	(track only)	25,210	(track only)		67,641	(track only)			
B5	ITD Meter Reading HC reductions	503	(track only)	512	(track only)						



- ► Combined Plan / Target / Actual Progress
- **▶** Contingency Reconciliation
- **►** SmartMeter<sup>™</sup> Acronyms



# **Project Deployment Plan Progress**



#s as of 04/30/11

Steering Committee May 2011 Report

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# **Contingency Reconciliation**

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



# **SmartMeter<sup>TM</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
СРІ	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	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
KC	Knowledge Center	UTC	Unable To Complete (meter installation)
KVAR	Kilo-Volts-Amps Reactive	YTD	Year-To-Date
LOB	Line of Business		