



PG&E'S 2014 GRC **DRA PRE-NOI SUMMARY**

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June 28, 2012



Agenda

- **Review Overall Request**
- **PG&E's 2014 Expense and Capital Expenditures Request by LOB**
- **Key Drivers by LOB**
- **Aldyl-A**
- **Next Steps**

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PACIFIC GAS AND ELECTRIC COMPANY
2014 GENERAL RATE CASE (Notice of Intent (NOI))
SUMMARY OF INCREASE
(Millions of Nominal Dollars)

Line		1/1/2014 Authorized & Pending	2014 Proposed	Difference	Line
	Electric Distribution				
1	Operation and Maintenance	\$624	\$630	\$5	1
2	Customer Services	188	203	15	2
3	Administrative & General	410	490	80	3
4	Less: Revenue Credits (OORs & Wheeling)	(115)	(100)	14	4
5	FF&U, Other Adjs, Taxes Other than Income	70	116	46	5
6	Return, Taxes, Depreciation, and Amortization	<u>2,589</u>	<u>2,994</u>	405	6
7	Retail Revenue Requirement	<u>\$3,768</u>	<u>\$4,333</u>	\$565	7
	Gas Distribution				
8	Operation and Maintenance	\$241	\$412	\$171	8
9	Customer Services	146	156	10	9
10	Administrative & General	199	263	64	10
11	Less: Revenue Credits (OORs & Wheeling)	(23)	(27)	(4)	11
12	FF&U, Other Adjs, Taxes Other than Income	42	66	25	12
13	Return, Taxes, Depreciation, and Amortization	<u>719</u>	<u>912</u>	193	13
14	Retail Revenue Requirement	<u>\$1,324</u>	<u>\$1,783</u>	\$459	14
	Electric Generation				
15	Operation and Maintenance	\$558	\$635	\$76	15
16	Customer Services	-	-	-	16
17	Administrative & General	197	277	80	17
18	Less: Revenue Credits (OORs & Wheeling)	(12)	(14)	(3)	18
19	FF&U, Other Adjs, Taxes Other than Income	43	(65)	(108)	19
20	Return, Taxes, Depreciation, and Amortization	<u>951</u>	<u>1,131</u>	180	20
21	Retail Revenue Requirement	<u>\$1,737</u>	<u>\$1,962</u>	\$225	21
	Total				
22	Operation and Maintenance	\$1,424	\$1,677	\$253	22
23	Customer Services	334	359	25	23
24	Administrative & General	806	1,030	224	24
25	Less: Revenue Credits (OORs & Wheeling)	(149)	(142)	8	25
26	FF&U, Other Adjs, Taxes Other than Income	155	117	(38)	26
27	Return, Taxes, Depreciation, and Amortization	<u>4,259</u>	<u>5,037</u>	778	27
28	Subtotal Retail Revenue Requirement	<u>\$6,829</u>	<u>\$8,079</u>	<u>\$1,250</u>	28

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Summary of Increases - Expense

Expense (in Millions of 2011 Dollars)

A No.	B LOB	C Exhibit No.	D 2011 Authorized	E 2011 Recorded Adjusted	F 2014 Forecast in Millions of 2011 Base Year \$	G 2014 Forecast vs. 2011 Authorized - % Increase	H 2014 Forecast vs. 2011 Rec Adj - % Increase
1	Gas	3	\$ 224	\$ 233	\$ 434	94%	86%
2	Electric	4	\$ 545	\$ 570	\$ 586	8%	3%
3	Customer Care	5	\$ 421	\$ 384	\$ 427	1%	11%
4	Energy Supply	6	\$ 590	\$ 543	\$ 668	13%	23%
5	Shared Services	7	\$ 92	\$ 55	\$ 95	4%	74%
6	IT	7	\$ 202	\$ 217	\$ 241	19%	11%
7	Corporate Services (in FERC)	9	\$ 202	\$ 219	\$ 229	14%	5%
Total			\$ 2,276	\$ 2,221	\$ 2,681	18%	21%

- Customer Care's 2011 imputed, 2011 recorded/recorded adjusted and 2014 forecast includes meter reading costs.
- Variances may exist between amounts provided in this presentation and the budget compliance reports due to organization changes, budget transfers, error corrections, etc.

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Summary of Increases – Capital Expenditures

Capital Expenditures (in Millions of Nominal Dollars)

A	B	C	D	E	F	G	H
No.	LOB	Exhibit No.	2011 Authorized	2011 Recorded Adjusted	2014 Forecast	2014 Forecast vs. 2011 Authorized - % Increase	2014 Forecast vs. 2011 Rec Adj - % Increase
1	Gas	3	\$ 275	\$ 308	\$ 840	205%	173%
2	Electric	4	\$ 1,322	\$ 1,370	\$ 1,769	34%	29%
3	Customer Care	5	\$ 133	\$ 114	\$ 189	42%	66%
4	Energy Supply	6	\$ 329	\$ 539	\$ 636	94%	18%
5	Shared Services	7	\$ 201	\$ 139	\$ 251	25%	80%
6	IT	7	\$ 57	\$ 142	\$ 212	274%	49%
7	Corporate Services	9	\$ 15	\$ 21	\$ 65	345%	204%
Total			\$ 2,332	\$ 2,634	\$ 3,963	70%	50%

* Customer Care's 2011 recorded adjusted amount excludes SmartMeter deployment costs

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Gas Operations

Expense (Base Year Dollars)

2011 Rec Adj. - \$233M 2014 Forecast - \$434M

Leak Survey and Repair

- Transition from a 5-year to a 3-year leak survey
- Perform annual leak survey on highest risk pipe
- Deploy new technology (Picarro Surveyor) to quickly identify and repair more leaks
- Repair above-ground Grade 3 leaks in 15 months rather than resurveying within 5 years

Gas Odor Response/Customer Service

- Respond to 75% of calls within 30 minutes, 99% within 60 minutes
- Treat all gas odor calls as “immediate response”

Preventative Maintenance

- Increased Locate and Mark services due to economic growth
- Proactive projects: dedicated painting crew, low pressure drain elevation

Distribution Integrity Management Program

- Cross Bored Sewer Program
- Program Management

Gas Ops Technology

- Pathfinder Project (Gas Distribution Asset Management)
- Integrity Management Program enhancements
- Mobile technology for field employees

Mapping and Records

- Improved centralized accessibility of records

Training and R&D

- Development of technical training curriculum and programs

Distribution Control Center

- Staffing for control center and equipment maintenance

Capital (Nominal Dollars)

2011 Rec Adj - \$308M 2014 Forecast - \$840M

Pipeline Replacement, Capacity, Reliability and other Capital

•Gas Pipeline Replacement Program (GPRP)

- Transition from replacing 30 miles of distribution main and associated services per year to 180 miles of main and associated services
 - 30 miles of pre-1940 steel pipe per year
 - 100 miles of Aldyl-A plastic pipe per year
 - 20 miles of post-1940 steel pipe per year

•Low pressure to high pressure main replacement

•Installation of additional emergency valves

•Replacement of High Pressure Regulator

Distribution Control Center Electronic Instrumentation

- Field installation 60 Remote Terminal Units and 128 pressure recorders

Gas Buildings

•Construction of Gas Control Center “Hot” backup

•Gas Training Center

Customer Connections

•New customer growth projections: backbone construction (main), customer connections (services), regulators and facility alterations

Gas Ops Technology

•Pathfinder Project (Gas Distribution Asset Management)

•Back up radio system and Mobile technology for field employees

Regulator Replacements

•Labor costs of replacing non-internal relief valve (IRV) regulators with an IRV regulator



Electric Operations

Expense (Base Year Dollars)

2011 Rec Adj. - \$570M 2014 Forecast - \$586M

Safety, Maintenance and Compliance

- Vegetation Management –Trimming to reduce fire risk, additional expenses to comply with increasing environmental requirements
- Comprehensive infrared inspection, splice inventory –Reduce number of wire-down incidents
- Substation maintenance - Increase to complete the higher priority work

Operations, Automation and Support

- Improved records management -- Initiatives that will improve the accuracy, completeness, uniformity and accessibility of its electric distribution system records.
- Information technology -- Support the successful delivery of the electric operations technology portfolio.

Customer Connection

- Service Inquiries driven by demand growth

Emergency Response - Offsetting reduction

- 2011 recorded expenditure is high compared to forecast which is based on average of several years

Capital (Nominal Dollars)

2011 Rec Adj. - \$1,370M 2014 Forecast - \$1,769M

Customer Connection, Demand Growth and Franchise Obligations

- Electric New Customer Connects
- Rule 20

Operations, Automation and Support

- Substation Supervisory Control and Data Acquisition (SCADA) – Install substation SCADA at nearly all substations by 2017
- Information Technology -- Improvements in the areas of electric system operations, asset and record management, work design and management, and workforce mobilization and scheduling

Safety, Maintenance and Compliance

- Underground switch replacement program
- Comprehensive Infrared inspection, splice inventory – Capital work associated with the program which will involve replacing overhead conductors

Asset Management and Reliability

- Substation transformer and switchgear replacements (aging infrastructure)
- Underground network cable replacement (aging infrastructure)
- TGRAM/TGRAL switch replacement (obsolete switch type, different from UG oil switch replacement, above)
- Overhead conductor replacement program (reduce number of “wire-down” incidents)
- Additional Fault Location, Isolation, Service Restoration systems (FLISR – automatic switching to restore customers within 5 minutes)

Emergency Response - Offsetting reduction

- 2011 recorded expenditure is high compared to forecast which is based on average of several years.



Customer Care

Expense (Base Year Dollars)

2011 Rec Adj. - \$384M 2014 Forecast - \$427M

Capital (Nominal Dollars)

2011 Rec Adj. - \$114M 2014 Forecast - \$189M

Account Services Staffing Increase

- Improve base account services work (i.e. administer rates, rules, contracts; address billing, credit, collection issues, outage communication)
- Increase customer service provided to small and medium business customers
- Increase of approximately 146 full-time employees.

Contact Center Enhancements

- Improve access to a representative, e.g., reduce average speed of answer (70 customer service representatives)
- Customer advocacy expansion (19 customer service representatives)
- Expand and improve customer service representative training
- Manage increase in call durations (110 customer service representatives to maintain existing service levels)

Rate Education and Outreach

- Integrate rate and program education and outreach –overall rate education covering multiple rate programs, rather than requesting separate funding for individual rate programs
- Provide outreach and communications to customers regarding major electric and gas safety and reliability work

Transition Accounts to Interval Billing

- Increase Billing Operations staff for interval billing: 137 employees to correct interval data to ensure accurate data for billing and customer web presentment

IT Projects

- Customer interaction and relationship management
- Customer self-service and energy management improvements
- Interval data processing and exceptions management
- Improve billing capabilities for new rates and services
- Meter management

* 2011 recorded spending include meter reading costs

IT Projects

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Ongoing Metering Requirements and Miscellaneous Capital

- Ongoing gas and electric meter costs
- Computers, tools, equipment, miscellaneous capital

Real Estate Projects

- Build out of Fresno and Sacramento Contact Centers
- Relocation of Billing and Credit Center

Local Office Improvements

* 2011 recorded exclude SmartMeter deployment costs



Energy Supply

Expense (Base Year Dollars)

2011 Rec Adj. - \$543M 2014 Forecast - \$668M

Nuclear

- Dual Refueling Outage
- Eddy current testing of Unit 2 Steam Generators
- O&M Projects (e.g., Cyber Security, Emergency Planning Rulemaking, Procedure Upgrade Project, and Water Storage Tank Concrete Repair)
- Fukushima related regulatory requirements

Hydro

- Enterprise Risk Management efforts and associated Facility Safety and Penstock Programs
- FERC License Conditions as a result of licenses received and expected to be received
- Maintenance to restore the safety and reliability of water storage and conveyance systems

Fossil and Other

- Piping integrity program; implementation of a machinery assessment program; implementation of a material traceability program
- Humboldt Bay Generating Station major engine preventative maintenance work

Energy Procurement

- New Compliance Requirements (e.g., Renewable Portfolio Standard, GHG, QF/Combined Heat and Power Settlement, Dodd-Frank Act of 2010)

Capital (Nominal Dollars)

2011 Rec Adj. - \$539M 2014 Forecast - \$636M

Nuclear

- Regulatory required work
 - Fukushima review
 - Cyber Security
 - Emergency Plan modifications,
 - New National Fire Protection standard)

Hydro

- Waterway projects to ensure public and employee safety
- Reliability projects and programs
 - Helms rotor and stator replacements
 - Generator rewinds
 - Turbine and governor overhauls/replacements, large valve refurbishments
- FERC license and license conditions work

Fossil and Other

- Completion of Large Construction Projects (Gateway Generating Stations, Humboldt Bay Generating Station, and fuel cells)

Energy Procurement

- CAISO Market and Performance Initiatives



Shared Services

Expense (Base Year Dollars)

2011 Rec Adj. - \$55M 2014 Forecast - \$95M

Corporate Real Estate

- Non-Customer Service Office (CSO) ADA compliance program (Proactive compliance)
- Maintenance
- Facility seismic safety upgrades
- Various Projects

Environmental

- Green House Gas (GHG) California Air Resources Board (CARB) Fees
- Additional remediation support for project management and oversight as well as additional land management work (conservation easements, fire management and inspections etc.)

Supply Chain

- Sourcing Supplier Diversity expansion of technical assistance program, new diverse community constituents program and multi - tier supplier program.

Safety

- Improved field support
- Safety audit, contractor and certification programs

Transportation Services

- Fleet management and Transportation Services IT system enhancements

Capital (Nominal Dollars)

2011 Rec Adj. - \$139M 2014 Forecast - \$251M

Transportation

- Air Resource Board (ARB) compliance replacements
- Vehicle life cycle Replacements

Corporate Real Estate

- Service center consolidation
- Improve operational reliability of critical facilities
- Service center and General Office improvement projects

Environmental

- Land and Safety mobile/IT projects
- Multi-Regional Habitat Conservation Program permitting

Supply Chain

- Sourcing Supplier Relationship Management (SRM) IT System Upgrade



Information Technology

Expense (Base Year Dollars)

2011 Rec Adj. - \$217M 2014 Forecast - \$241M

- Escalating costs for maintenance contracts and licensing supporting the growth of assets and services
- Increased headcount in the IT Baseline portfolio to support continuous improvement initiatives, the increased use of mobile devices and the growing number of applications and systems supporting PG&E's various lines of business

Capital (Nominal Dollars)

2011 Rec Adj. - \$142M 2014 Forecast - \$212M

- Lifecycle initiatives related to maintaining the reliability of PG&E's expanding IT asset base
- Disaster Recovery program to address IT risk mitigation and meet business requirements for ensuring the availability of mission critical business processes such as emergency field support and operations and control of the gas and electric systems
- Telecommunications network enhancements to support grid modernization, cybersecurity risk mitigation and to keep pace with increased telecommunications network and data demands across the lines of business
- Identity and Access Management program to reduce enterprise risk and reduce inappropriate access to customer and employee information
- Records Management Archival initiative essential for meeting the business' needs related to the availability of records
- IT Service Management initiatives to improve the reliability of IT operations



Corporate Services

Expense (Base Year FERC Dollars)
2011 Rec Adj. - \$219M 2014 Forecast - \$229M

Capital (Nominal Dollars)
2011 Rec Adj. - \$21M 2014 Forecast - \$65M

Human Resources

- Increased recruiting needs, enhanced workforce planning, and expanded knowledge transfer programs
- New technical training curriculum and provide ongoing maintenance of existing and new training courses
- Increased field support for supervisors so that PG&E can consistently implement its HR programs/plans and stay in compliance with evolving legal and regulatory requirements

Risk & Audit

- Compliance with new legislation and regulations (such as Dodd-Frank requirements, greenhouse gas regulations, and new accounting regulations)
- Increased scope of PG&E's Enterprise Risk Management function to ensure active management of operational and enterprise risks
- Enhance the physical security of PG&E facilities, support the Business Continuity and Emergency Management and life safety programs, and provide security technology expertise

Regulatory Relations

- Larger caseload, increasing number of compliance and reporting requirements, and more-complex rate and revenue requirement analyses.

Risk & Audit

- Establish an alternative Emergency Operations Center outside of the San Francisco Bay Area to mitigate the risk of loss of emergency operations during certain Bay Area seismic event scenarios

Various Corporate Services organizations

- Deploy a variety of IT projects to support the Corporate Services organizations

Overview of Gas Distribution Integrity Management Program

- Examining entire system, not just pipes made of specific materials or of certain age
- Focusing on pipes, fittings, and other equipment with a high leak history
- Performing annual leak survey of “cluster areas,” which in many cases contain Aldyl-A

Aldyl-A Pipe Replacement (\$166 - \$172 million/year)

- Currently PG&E has approximately 21,000 miles of polyethylene plastic pipe in the system
- 5,700 miles of Aldyl-A brand plastic; approximately 1,200 miles manufactured before 1973
- Plan to replace approximately 100 miles of plastic pipe per year starting in 2014
- Other plastic pipe could be replaced in advance of Aldyl-A if it is found to have a higher risk of failure

Aldyl-A Tee Caps Replacement (\$7.3 million/year)

- Plan to address 1,000 Aldyl-A tee caps per year starting in 2014
- Primary source of leaks associated with Aldyl-A, issues occur where stress was applied during installation
- Plan to identify areas where clusters of tee cap failures are found and prioritize them for replacement using keyhole technology to minimize costs
- Simultaneously evaluating integrity of adjacent pipe to ensure plastic tee caps are the only work required to ensure pipeline integrity of a specific plastic system
- Piloting program in 2013, including investigating keyhole technology, establishing standards, work procedures and training

DIMP Assessment of Aldyl-A Replacement (\$1.2 million in 2014)

- Further analysis on Aldyl-A pipes, risers and tee caps



- **Results of Operations Model**
 - **PG&E understands all outstanding issues have been resolved**
- **Line of Business-DRA witness meetings**
- **Meetings to clear deficiencies**
- **Close of deficiency period**