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Witness	:	Oh

DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations for Pacific Gas and Electric Company General Rate Case Test Year 2014

Shared Services and Information Technology Costs

San Francisco, California
May 3, 2013

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SB_GT&S_0050400

SHARED SERVICES and
INFORMATION TECHNOLOGY COSTS

I. INTRODUCTION

This exhibit presents the analyses and recommendations of the Division of Ratepayer Advocates (DRA) regarding Pacific Gas and Electric Company's (PG&E) forecasts of Shared Services and Information Technology operation and maintenance (O&M) expenses for Test Year (TY) 2014 and capital expenditures for 2012 through 2014.

PG&E's Shared Services generally provide company-wide support to PG&E's lines of business (LOBs), and comprises: (1) the Safety Department; (2) Transportation Services; (3) Supply Chain – Materials Logistics and Planning; (4) Supply Chain – Sourcing Operations; (5) Real Estate; and (6) the Environmental Program. Many of the costs of the Shared Services department are direct-charged to the departments they support through the use of "chargebacks." The Shared Services' costs are ultimately charged to numerous SAP capital and expense accounts of PG&E's lines of business that use the services of the Shared Services departments.

PG&E's Information Technology (IT) organization provides IT services and maintains IT assets throughout the utility's service territory, in the following portfolio of services: (1) Baseline Operations Portfolio; (2) Technology Reliability Portfolio; and (3) Business Technology Project Portfolio.

II. SUMMARY OF RECOMMENDATIONS

The following summarizes DRA's recommendations regarding Shared Services expenses and capital:

- DRA recommends that the Commission authorize $12.9 million in expenses for PG&E's Safety Department.
- DRA recommends that PG&E's fuel chargeback be reduced by $14 million in 2014 to reflect lower fuel costs and higher use of electric vehicles.

- DRA recommends that the Commission reject PG&E's Improve Transportation Compliance Tracking and Reporting project as the anticipated cost savings do not justify the cost.
- DRA recommends that the Commission reject PG&E's Fleet Management Application Optimization project as cost savings are not anticipated and the non-cost savings do not justify the cost
- DRA recommends that the Commission reduce PG&E's MWC 04 to purchase new vehicles by $35.4 million.
- DRA recommends that PG&E's MWC 28 to install Electric Vehicle charging stations be decreased to $1.9 million.
- DRA recommends that the Commission reject PG&E's Material Advanced Planning and Scheduling project.
- DRA recommends that the Commission reject PG&E's Implement Supplier Performance Management project.
- DRA recommends that the Commission reject PG&E's Integrate Supply Chain with Enterprise Content Management project.
- DRA recommends that the Commission reject PG&E' plan to install a dedicated 12kV power feed to Fairfield Data Center.
- DRA recommends that the Commission reject PG&E's Enhancing PG&E Environmental, Health, and Safety Management System.
- DRA recommends that the Commission reject Enhancing Electronic Management project.
- DRA recommends that the Commission reject $2 million in MWC 12, Environmental Capital projects, that PG&E received in past rate cases, but used for other purposes.

The following summarizes DRA's recommendations regarding Information Technology expenses and capital:

- DRA recommends that the Commission adjust all IT projects, not otherwise opposed, that used PG&E's Concept Estimating Tool to 86% of forecast.
- DRA recommends that the Commission accept an adjustment to 86% of forecast for PG&E's IT projects that rely on the Cost Estimating Tool as it reflects actual monies spent by PG&E from the 2011 GRC that relied on the same estimating tool
- DRA recommends that the Commission adopt actual 2012 recorded capital expenditures.

- DRA recommends that the Commission utilize a five year trend to forecast PG&E's Baseline Portfolio ,
- DRA recommends that the Commission reject PG&E's Records Management Archival project.
- DRA recommends that the Commission reject PG&E's Service Management project.

Table 18-1 compares DRA's and PG&E's TY2014 forecasts of Shared Services and Information Technology expenses:

Table 18-1
Shared Services and Information Technology Expenses for TY2014
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[1] (c)	Amount PG&E>DRA (d=c-b)	Percentage PG&E>DRA (e=d/b)
Safety Department	$12,970	$16,347	$3,377	26.0%
Transportation Services	$1,350	$3,120	$1,770	131.1%
Supply Chain - Materials	$405	$1,321	$916	226.2%
Supply Chain - Sourcing	$8,058	$13,077	$5,019	62.3%
Real Estate	$14,453	$32,590	$18,146	125.6%
Environmental Program (A&G)	$8,459	$8,459	$0	0.0%
Environmental Program (O&M)	$18,786	$28,310	$9,524	50.7%
Information Technology	$231,809	$261,603	$29,794	12.9%
Total	$296,290	$364,828	$68,546	23.1%

[1] Ex. PG&E-7, p. 2-21, p.3-41, p.4-31, p.5-33, p.6-126, p.7-43 and p.8-72.

Table 18-2 compares DRA's and PG&E's 2012-2014 forecasts of Shared Services and Information Technology capital expenditures:

Table 18-2
Shared Services and Information Technology Capital Expenditures for 2012-2014
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[2]		
	2012	2013	2014	2012	2013	2014
Safety Department	$0	$0	$0	$0	$0	$145
Transportation Svcs	$174,172	$90,021	$103,613	$139,450	$146,572	$139,302
Supply Chain – Materials	$1,920	$823	$4,215	$1,408	$823	$7,849
Supply Chain – Sourcing	$0	$0	$7,284	$0	$0	$10,020
Real Estate	$50,610	$40,188	$51,341	$48,976	$40,448	$81,602
Environmental Program	$3,969	$4,586	$5,556	$5,916	$6,586	$11,526
Information Tech.	$163,444	$136,106	$161,258	$136,314	$142,696	$212,321
Total	$394,115	$271,724	$333,267	$332,065	$337,125	$462,765

III. GENERAL OVERVIEW

PG&E's Shared Services 2014 forecast for expense is $103.2 million.[3] Recorded adjusted expenses were $54.6 million in 2011. PG&E states that the main expense drivers for the increase are: Real Estate costs associated with American Disabilities Act compliance and facility maintenance; Environmental Program costs associated with Assembly Bill (AB) 32 carbon fees; and additional staff for improved field support in Safety.[4]

[2] Ex. PG&E-7, p. 2-21, p.3-41, p.4-31, p.5-33, p.6-127, p.7-43 and p.8-73.

[3] Ex. PG&E-7, p. 1-1.

[4] Ex. PG&E-7, p.1-1

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PG&E's Shared Services capital expenditure forecast is $195.8 million for 2012, $194.4 million for 2013, and $250.4 million for 2014.[5] Recorded adjusted capital expenditures were $139.4 million for 2011. PG&E states the main capital drives are: Transportation Services costs to comply with Air Resource Board requirements and lifecycle replacements; Real Estate costs associated with Service Center optimization; and technology costs for Supply Chain-Sourcing Operations.[6]

The IT portion includes costs required at the Company-wide level for ongoing operations and maintenance (O&M) of technology projects and systems, as well as new capital projects. PG&E's IT 2014 forecast for expense is $261.6 million. Recorded adjusted expenses were $217 million in 2011. PG&E states the main expense drivers are increased O&M costs for contracts and licenses supporting the growth of assets and services and increased headcount to support the growing number of applications and systems the lines of business are deploying.[7]

PG&E's IT capital expenditure forecast is $136.3 million for 2012, $142.7 million for 2013, and $212.3 million for 2014[8]. Recorded adjusted capital expenditures were $142.1 million for 2011. PG&E stated the main capital drivers are: upgrading and maintaining PG&E's IT asset base, three initiatives focused on improving cyber-security, and two initiatives focused on continuous improvement.[9]

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[5] PG&E's Shared Services capital expenditure forecast is $238.6 million for 2015 and $213.8 million for 2016.

[6] Ex. PG&E-7, p. 1-2

[7] Ex. PG&E-7, p. 1-2

[8] PG&E's IT capital expenditure forecast is $212.4 million for 2015 and $196.7 million for 2016.

[9] Ex. PG&E-7, p. 1-2

A. PG&E's Request

PG&E requests total Shared Service and IT expense and capital of $827.6 million in 2014.[10] This is a 49.6% increase from 2011.

B. Authorized vs. Recorded Expenses/Expenditures

In PG&E's 2011 GRC, the Commission ordered the utility to provide periodic compliance filings showing authorized and recorded expenses and capital expenditures, by Major Work Category (MWC), for electric distribution, electric generation, and gas distribution.[11]

In keeping with the spirit of that order, DRA provides the following historical comparison of authorized versus recorded capital expenditures for the MWCs addressed in this exhibit.

[10] Shared Services 2014 forecast for expense is $103.2 million. Shared Services 2014 forecast for capital is $250.4 million. IT 2014 forecast for expense is $261.6 million. IT 2014 forecast for capital is $212.3 million. Total is $827.6 million.

[11] *Decision on Pacific Gas and Electric Company Test Year 2011 General Rate Increase Request* (2011) Decision (D.) 11-05-018, *mimeo.*, Ordering Paragraph 42, at pp. 98-99.

Table 18-3
2007-2011 Authorized vs. Recorded Shared Services and IT Expenses for Major Work Categories AB, BI, JE & JH, AK, AY, CR, ES, JK, FA & FL, JL, JV and Various, EP
(In Thousands of Dollars)

MWC	Year					
		2007	2008	2009	2010	2011
AB	Authorized	$	$	$	$	$2,186
	Recorded	$363	$	$173	$390	($208)
BI	Authorized	$30,433	$31,348	$32,263	$33,178	$26,529
	Recorded	$12,045	$6,087	$7,640	$8,146	$9,622
JE & JH	Authorized	$6,714	$6,916	$7,118	$7,320	$7,998
	Recorded	$6,183	$6,468	$4,921	$5,193	$5,199
AK	Authorized	$9,568	$9,855	$10,143	$10,431	$10,049
	Recorded	$8,800	$9,737	$10,592	$9,468	$9,692
AY	Authorized	$870	$896	$922	$949	$130
	Recorded	$3,144	$1,337	$755	$450	$880
CR	Authorized	$1,805	$1,859	$1,913	$1,968	$3,567
	Recorded	$2,544	$2,579	$3,135	$1,946	$3,228
ES	Authorized	$1,543	$1,590	$1,636	$1,683	$1,542
	Recorded	$2,091	$1,668	$1,061	$717	$466
JK	Authorized	$1,271	$1,310	$1,348	$1,386	$5,223
	Recorded	$3,454	$4,510	$5,353	$6,548	$5,945
FA & FL	Authorized	$13,114	$13,508	$13,903	$14,297	$16,291
	Recorded	$18,122	$15,964	$18,533	$13,378	$11,985
JL	Authorized	$7,791	$8,025	$8,259	$8,493	$7,292
	Recorded	$7,426	$7,309	$6,867	$5,836	$7,684
JV and Various	Authorized	$211,722	$213,518	$224,896	$231,275	$260,915
	Recorded	$187,123	$198,112	$196,880	$208,981	$234,411
EP	Authorized	$	$	$	$	$
	Recorded	$	$	$	$	$1,223

Source: Authorized data from MDR-Ch24_SharedServices and MDR_Ch24_IT. Recorded data from MDR-Ch24_SharedServices and MDR_Ch24_IT. 2011 authorized data from Pacific Gas and Electric Company's August 3, 2011 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018. 2011 recorded data from Pacific Gas and Electric Company's March 30, 2012 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018.

Table 18-4
2007-2011 Authorized vs. Recorded Shared Services and IT Capital Expenditures for Major Work Categories 04, 05, 12, 20 and 21, 22 and 23 and 78, 85, 88, 2F and various, 27, 53
(In Thousands of Dollars)

MWC		Year				
		2007	2008	2009	2010	2011
04	Authorized	$153,916	$114,826	$107,195	$108,311	$93,352
	Recorded	$102,379	$51,639	$66,135	$63,298	$75,920
05	Authorized	$1,210	$1,115	$1,387	$1,401	$2,072
	Recorded	$1,599	$1,811	$1,497	$3,551	$1,243
12	Authorized	$5,087	$3,701	$6,288	$6,353	$6,506
	Recorded	$2,998	$3,425	$4,747	$3,717	$3,649
20, 21	Authorized	$	$	$	$	$383
	Recorded	$22,513	$305	$392	$397	$695
22,23 & 78	Authorized	$56,350	$58,868	$45,049	$45,517	$71,398
	Recorded	$27,744	$44,246	$36,636	$56,164	$45,186
85	Authorized	$	$	$	$	$6,665
	Recorded	$	$	$	$18	$
88	Authorized	$4,973	$4,755	$5,565	$5,623	$
	Recorded	$1,387	$	$	$	$
2F and Various	Authorized	$79,639	$47,182	$48,278	$48,781	$204,506
	Recorded	$102,416	$148,303	$175,754	$247,581	$246,957
79	Authorized	$	$	$	$	$13,966
	Recorded	$	$	$	$	$
53	Authorized	$	$	$	$	$832
	Recorded	$	$	$	$	$

Source: Authorized data from MDR-Ch24_SharedServices and MDR_Ch24_IT. Recorded data from MDR-Ch24_SharedServices and MDR_Ch24_IT. 2011 authorized data from Pacific Gas and Electric Company's August 3, 2011 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018. 2011 recorded data from Pacific Gas and Electric Company's March 30, 2012 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018.

IV. DISCUSSION / ANALYSIS OF SAFETY DEPARTMENT

PG&E says its Safety Department is responsible for identifying, evaluating and controlling hazards, risks and exposures to protect PG&E's employees and the general public. The Safety Department establishes the overall framework and applies the company's safety policies and applicable regulations.[12]

The following tables summarize PG&E's request and DRA's recommendation for the MWCs within the Safety Department.

Table 18-5
Shared Services Expenses for TY2014
Safety Department
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[13] (c)
MWC FL – Safety, Engineering and OSHA Compliance	$12,927	$15,587
MWC JV – Maintain IT Applications and Infrastructure	$43	$760
Total	$12,970	$16,347

Table 18-6
Shared Services Capital Expenditures for 2012-2014
Safety Department
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[14]		
	2012	2013	2014	2012	2013	2014
MWC 2F – Build IT Applications and Infrastructure	$0.0	$0.0	$0.0	$0.0	$0.0	$145.0
Total	$0.0	$0.0	$0.0	$0.0	$0.0	$145.0

[12] Ex. PG&E-7, p. 1-3

[13] Ex. PG&E-7, p. 2-21.

[14] Ex. PG&E-7, p. 2-21.

A. Expenses

PG&E forecasts the Safety Department's 2014 expense at $16.3 million. This is a 48% increase over base year recorded adjusted costs of $11.0 million.[15] PG&E identifies the key driver of the increased expense forecast as the addition of 21 safety professionals.[16]

1. MWC FL – Safety, Engineering and OSHA Compliance

PG&E forecasts $15.6 million of expenses in 2014 for MWC FL. PG&E states that it developed the estimates for forecast expense amounts based on an evaluation of recorded 2011 costs plus adjustments for anticipated staffing and program changes that will occur between 2012 and 2014.[17]

Table 18-7
2007-2012 Recorded Adjusted Data for Safety Engineering and OSHA Compliance (in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC FL	$17,330	$12,055	$12,002	$11,788	$10,367	$11,508

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 2-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends $12.9 million in expenses for 2014, based on using a 5 year (2008-2012) average, escalated to 2014 dollars, to establish the 2014 forecast. While PG&E discusses the need for 21 additional positions for safety professionals, PG&E had seven vacant positions at the end of 2011. In response to discovery, PG&E stated "For clarification, the 74 employees referenced in the testimony consisted of 67 active safety professional positions and seven safety professional

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[15] Ex. PG&E-7, p. 2-1

[16] Ex. PG&E-7, p. 2-2

[17] Ex. PG&E-7, p 2-19

positions that were vacant at the time."[18] Additionally, while PG&E compares the ratio of safety professionals with other utilities, a comparison of the number of PG&E's safety professionals with the number of PG&E's International Brotherhood of Electric Workers (IBEW), for the past five years shows little change, as shown in the table below.

Table 18-8
2007-2012 Active Safety Professionals to
Total International Brotherhood of Electrical Workers

Description	2007	2008	2009	2010	2011	2012
Total IBEW	13,190.5	12,687.3	12,047.7	11,675.1	11,739.5	11,803.9
Total Active Safety	79	76	74	67	67	69
	0.60%	0.60%	0.61%	0.57%	0.57%	0.58%

Source: PG&E data response GRC2014-PH-1_DR_DRA_080-Q03Atch01 and GRC2014-PH-1_DR_DRA_080-Q01.

While the major cost driver is the additional staffing, PG&E also included forecasted costs for a Safety Audit/Assessment Program, a Contractor Safety Program, for Pandemic Supplies and Materials, and an Enterprise Content Management.[19]

DRA's recommendation on the use of the five year recorded average, escalated to 2014, encompasses all the different programs that PG&E forecasts and allows PG&E management the freedom on how to best meet its responsibility to provide safe and reliable service.

2. MWC JV – Maintain IT Applications and Infrastructure

PG&E forecasts $760 thousand of expenses in 2014 for MWC JV. PG&E's Safety Department forecasts three IT projects with both capital and expense components. The three IT projects consists of: Improve Safety Work Management;

[18] PG&E Data Response _DR-DRA-080-Q01

[19] Ex. PG&E- 7, p. 2-17 and 2-18.

Improve Safety Customer Communications, and Safety Migration to Enterprise Content Management.[20]

The Improve Safety Work Management IT project is a tool to help manage the workflow of the Safety Department. The Improve Safety Customer Communications IT project will provide a communication tracking tool to help the Safety Department comply with regulations more efficiently and effectively. The Safety Department Migration to Enterprise Content Management project will migrate Safety Department documents to an electronically searchable, enterprise content management system.

Table 18-9
2007-2012 Recorded Adjusted Data for Maintain IT Applications and Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$17	$60	$45	$35

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 2-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends $43 thousand in expenses for 2014, based on using a 4 year (2009-2012) average, escalated to 2014 dollars, to establish the 2014 forecast. DRA used a 4 year average as there was no data for 2008.

DRA notes that although PG&E proposed to replace the Improve Safety Work Management application in the 2011 GRC and that DRA did not oppose the proposition, the Safety Department's application is still in use today.[21] DRA's estimate is based on PG&E's recorded cost and DRA recommends the Commission adopt it as a reasonable TY 2014 forecast for MWC JV.

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[20] Ex. PG&E-7, p. 2-18

[21] Ex. PG&E-7 Workpaper, p. WP 2-22

B. Capital Expenditures

PG&E forecasts the Safety Department's capital needs as $145 thousand in 2014, $190 thousand in 2015, and $40 thousand in 2016. PG&E does not forecast capital expenditures for 2012 and 2013.[22]

1. MWC 2F – Build IT Applications and Infrastructure

As noted above, PG&E forecasts three IT projects: Improve Safety Work Management; Improve Safety Customer Communications, and Safety Migration to Enterprise Content Management.[23]

Table 18-10
2007-2012 Recorded Data for Build IT Apps and Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workapers, WP 2-9. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

As can be seen from the table above, PG&E has not recorded any costs in this MWC during the past six years. PG&E has not provided sufficient evidence which indicates that it will deviate from its past spending pattern in this area. Therefore, DRA recommends that the Commission reject PG&E's funding request.

V. DISCUSSION / ANALYSIS OF TRANSPORTATION SERVICES

PG&E's Transportation Services (TS) manages, maintains, and repairs PG&E's trucks and other vehicles, and staffs facilities to service those vehicles. Transportation Services also manages and maintains PG&E's aircraft operations.

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22 Ex. PG&E-7, p. 2-2

23 Ex. PG&E-7, p. 2-18

PG&E's TS operates and maintains 12,000 vehicles and pieces of equipment.[24] PG&E's TS maintains 72 garages (61 staffed) with 404 active fleet employees to support these assets. Annually, PG&E employees drive more than 110 million miles. PG&E also maintains an airplane principally to serve the Diablo Canyon Power Plant operations.[25]

TS uses "chargebacks" to allocate fleet-related expenses across all PG&E's lines of business, including Customer Care, Electric Operations, Gas Operations, and Energy Supply. PG&E says that chargeback expenses specific to the services and assets TS provides are included in each Line of Business (LOB).[26]

The following tables summarize PG&E's request and DRA's recommendation for the MWCs within Transportation Services.

Table 18-11
Shared Services Expenses for TY2014
Transportation Services
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[27] (c)
MWC JV - Main IT Apps	$1,350	$3,120
Total	$1,350	$3,120

[24] Ex. PG&E-7, p. 1-3

[25] Ex. PG&E-7, p. 3-1

[26] Ex. PG&E-7, p. 3-2

[27] Ex. PG&E-7, p. 3-41.

Table 18-12
Shared Services Capital Expenditures for 2012-2014
Transportation Services
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[28]		
	2012	2013	2014	2012	2013	2014
MWC 04 – Fleet/Auto Equipment	$171,690	$89,633	$99,150	$137,870	$145,464	$132,908
MWC 05 – Tools & Equipment	$1,420	$388	$933	$900	$908	$933
MWC 28 – EV – Station Infrastructure	$1,063	$0	$1,930	$680	$200	$2,412
MWC 2F – Build IT Apps & Infra	$355	$0	$1,600	$0	$0	$3,050
MWC 85 – IT Infrastructure	$12	$0	$0	$0	$0	$0
Total	$174,172	$90,021	$103,613	$139,450	$146,572	$139,302

A. Expenses

PG&E forecasts the TS 2014 expense at $3.1 million.[29] The last recorded expense for TS was $303,000 in 2010.[30]

In addition, PG&E includes $49.1 million in fuel expenses to be charged back to LOBs in 2014. PG&E says that the majority of Transportation Services Chargeback costs are spread as vehicle/fleet charges to all FERC account and are not requested separately in the results of operation.[31] As such, the $49.1 million in fuel expense is not included in any MWC but addressed in the Result of Operations.

[28] Ex. PG&E-7, p. 3-41.

[29] Ex. PG&E-7, p. 3-2

[30] Ex. PG&E-7, p. 3-2

[31] Ex. PG&E-7, p. 3-42

DRA made a $14 million adjustment to PG&E's 2014 fuel expense forecast. DRA's adjustment is based on California Energy Commission Energy Almanac's April 22, 2013 retail price for gasoline and diesel fuel and adjusting the fuel consumption to reflect new electric vehicles. As fuel expenses are not separately identified, DRA adjustments are reflected in "Other Adjustment" in the Result of Operations tables.

1. MWC JV – Maintain IT Apps and Infrastructure

PG&E states that the forecast targets five essential areas: Improve Transportation Compliance Management Tracking and Reporting, Vehicle Safety and Operational Tracking and Reporting, Fleet Management Application Optimization, IT Infrastructure Optimization, and Field Enablement of IT Systems in Garages.[32]

Table 18-13
2007-2012 Recorded Adjusted Data for Maintain IT Apps and Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$0	$303	$0	$197

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 3-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA opposes the Improve Transportation Compliance Tracking and Reporting project and the Fleet Management Application Optimization project. For the Improved Transportation Compliance Management Tracking and Reporting project, PG&E states that it does not anticipate any significant cost savings and that the non-cost benefits are "[d]ecreased use of compliance and audit paper forms and ability to rapidly locate and transmit electronic forms, [e]asier access to driver qualification and license information…, [and] [i]immediate communication between the DOT compliance team and field operations…."[33] These benefits are

[32] Ex. PG&E-7, pp.3-17 to p.3-19.

[33] Ex. PG&E-7 Workpapers, p. WP 3-380.

questionable and unverifiable as PG&E has not quantified how much time will likely be saved by the claimed efficiency or why the existing communication between DOT and the Field Compliance Team has been inadequate. None of these purported benefits justify the total capital and expense forecast of $2.5 million and DRA recommends that ratepayers not be required to fund this project.

PG&E states that the Fleet Management Application Optimization project re-writes code to interface with the latest technologies, allowing for better integration with other applications, for creating or modifying purchase orders, performing goods receipts, the creation of capital orders, and the managing of assets.[34] PG&E does not anticipate any significant cost savings as a result of this project with the non-cost benefits being improved performance and response times for day-to-day activities, gained ability to proactively identify issues, and reduced use of paper.[35] These benefits do not justify the total capital and expense forecast of $2.0 million and DRA recommends that ratepayers not be required to fund this project.

B. Capital Expenditures

PG&E forecasts the TS capital needs as $139.4 million in 2012, $146.6 million in 2013, $139.3 million in 2014, $124.3 million in 2015, and $122.2 million in 2016. PG&E's 2014 capital request for TS represents an 81% increase from the base year 2011 recorded costs; 64% or $40 million of this increase is driven by vehicle replacement, with the remainder split among vehicle additions (26%), new Electric Vehicle charging infrastructure (4%), Information Technology costs associated with new initiatives (5%), and tools and equipment replacement (1%).[36]

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[34] Ex. PG&E-7, p. 3-18.

[35] Ex. PG&E-7 Workpapers, p. WP 3-371.

[36] Ex. PG&E Exhibit 7, p. 3-2

PG&E states that the capital expenditure forecast increases for TS are largely due to: (1) compliance with environmental regulations, (2) fleet modernization to more sustainable technologies, and (3) labor escalation and non-labor inflation.[37]

1. MWC 04 – Fleet/Auto Equipment

PG&E states that MWC 04 includes all vehicle-related capital expenditures associated with TS, including the replacement of automobiles, trucks, trailers and similar vehicles, and any power-operated equipment mounted on any of these assets.[38] PG&E forecasts MWC 04 at $145.5 million in 2013, $132.9 million in 2014, $118.5 million in 2015, and $117.1 million in 2016.

Table 18-14
2007-2012 Recorded Data for Fleet/Auto Equipment
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 04	$102,379	$51,639	$66,135	$63,298	$75,920	$171,690

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 3-10. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

According to PG&E, vehicle replacement capital costs fall under four categories: regulatory compliance, vehicles that have exceeded their lifecycle, vehicles that will reach the end of their lifecycle during the rate case period, and additional vehicles. PG&E forecasted 2012 capital expenditures for MWC 04 as being $137.9 million. PG&E's actual recorded cost was $171.7 million. As such, PG&E exceeded its 2012 forecast by $33.8 million. DRA accepted PG&E's actual 2012 recorded costs and decreased PG&E's forecasted 2013 capital expenditure by $33.8 million.

In addition to the vehicle-related capital expenditures in TS, PG&E also included the 2012 and 2013 forecasts for additional vehicles in Exhibit PG&E-3, Chapter 8, Gas Distribution Capital and Investment Planning. In Exhibit PG&E-3,

[37] Ex. PG&E-7, p. 3-3

[38] Ex. PG&E-7, p.3-21

under MWC 05 – Tools and Equipment, PG&E includes the forecast for 2012 capital expenditures for vehicles for an additional 40 gas service representatives (GSRs). The forecast for 2013 ($13.4 million) includes the purchase of additional vehicles for maintenance and construction (M&C) to support increasing capital and Operations and Maintenance work.[39] In response to DRA data request, PG&E provided 2007 – 2011 capital expenditures for vehicles purchased for Gas Distribution M&C crews.

Table 18-15
2007-2011 Recorded Capital Expenditures
Gas Distribution M&C Fleet Assets
(in Thousands of Nominal Dollars)

Description	2007	2008	2009	2010	2011
MWC 04	$28,142	$15,559	$8,987	$14,005	$9,937

Source: GRC2014-Ph-1_DR_DRA_023-Q02.

In the same data response, PG&E stated that PG&E had hired all 40 GSRs that it forecast hiring in 2012.[40]

Given that the 5 year average is $15.3 million and that PG&E has hired the 40 GSRs, DRA accepts PG&E's 2012 and 2013 forecast of fleet costs discussed in Exhibit PG&E-3. PG&E forecasted $2 million in 2012 and spent $3.1 million which PG&E said they transferred to Shared Services. DRA accepts the 2013 capital forecast of $13.4 million (in Exhibit PG&E-3) and removed it from MWC 05 in Gas Distribution Capital and Investment Planning and added it to MWC 04 under Transportation Services.

PG&E forecasts purchasing 470 new vehicles totaling $114.3 million in 2013, and 309 new vehicles totaling $80.3 million in 2014 for environmental compliance.[41] Over 97% of this replacement cost is related to California Air Resources Board (ARB) Diesel Particulate Matter Control Measure for On-road Heavy-Duty Diesel-

[39] Ex. PG&E-3, p. 8-5

[40] PG&E Response to _DR_DRA_023-Q02

[41] Ex. PG&E-7 Workpaper WP 3-362

fueled Vehicles owned or operated by Public Agencies and Utilities program (On-Road).

PG&E forecasted the capital expenditures by Environmental Compliance and ARB program in its supporting workpapers. In response to The Utility Reform Networks (TURN)'s data request, PG&E provided recorded historical data in the same format for 2007 to 2011, and the forecast for 2012.[42] A review of PG&E's data response shows that average unit costs are forecasted to increase 42% to 52% from 2012 to 2013 for On-Road compliance. Historical unit averages have increased 23% to 25%.[43] The large increase from historical norm is not reasonable and should be adjusted. DRA used an average of 2011 and 2012 unit cost and applied this average unit-cost to the number of PG&E's On Road replacement units. As such, DRA reduced vehicle purchase forecast by $35.4 million in 2013.

DRA's forecast for 2013 for MWC 04 is $89.6 million.

DRA also used an average of 2011 and 2012 unit cost, escalated to non-labor rates, and applied that to PG&E's 2014 forecasted total units for PG&E's On Road replacement to forecast 2014 capital. As such, DRA reduced PG&E's MWC 04 to $99.2 million for 2014.

2. MWC 05 – Tools & Equipment

Recorded capital in 2011 for Capital Tools and Equipment (MWC 05) was $961 thousand, and included the costs associated with purchases or the replacement of fleet related capital tools and equipment and the maintenance and updating of environmental equipment to meet environmental regulations related to the safe operation of facilities. [44]

[42] PG&E response to TURN's data request GRC2014-Ph-1_TURN_023-Q12

[43] DRA used 3 years 2007 to 2011 recorded data. DRA discarded those a years with a negative growth.

[44] Ex. PG&E-7, p. 3-30.

Table 18-16
2007-2012 Recorded Data for Tools & Equipment
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 05	$895	$985	$929	$2,998	$961	$1,420

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 3-10. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

PG&E forecasted 2012 capital expenditures for MWC 05 as being $900 thousand. PG&E's actual recorded cost was $1.42 million. As such, PG&E exceeded its 2012 forecast by $520 thousand. DRA accepts PG&E's actual 2012 recorded costs and decreased PG&E's forecasted 2013 capital expenditure by $520 thousand. DRA did not adjust 2014 forecasted capital for MWC 05. Therefore, DRA accepts PG&E's total 3-year (2012-2014) capital expenditure forecast for MWC 05.

3. MWC 28 – EV – Station Infrastructure

PG&E recorded capital costs of $215,000 in 2011 for Electric Vehicle (EV) charging infrastructure in MWC 28.[45] PG&E anticipates increased funding for EV charging infrastructure to meet the charging needs of PG&E's growing fleet of EVs. MWC 28 capital is forecast at $680 thousand in 2012, $200 thousand in 2013, $2.4 million in 2014, $2.6 million in 2015, and $2.8 million in 2016. PG&E states that these funds support the installation of a plug-in vehicle charging infrastructure for the growing number of plug-in electric vehicles and electric workplace idle management system equipped trucks in PG&E's fleet.[46]

[45] Ex. PG&E-7, p. 3-32

[46] Ex. PG&E-7, p. 3-32

Table 18-17
2007-2012 Recorded Data for EV Station Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 28	$0	$0	$0	$0	$0	$1,063

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 3-10. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

PG&E forecasted 2012 capital expenditures for MWC 28 as being $680 thousand. PG&E's actual recorded cost was $1.06 million. As such, PG&E exceeded its 2012 forecast by $383 thousand. DRA accepts PG&E's actual 2012 recorded costs and decreased PG&E's forecasted 2013 capital expenditure by $383 thousand. DRA also adjusted PG&E's 2014 forecasted capital for MWC 28 to 80% of forecast. DRA recommends the 20% adjustment to PG&E's forecast based on data which shows that PG&E's actual recorded costs were 80% of the estimated forecast for completed EV charging projects, as demonstrated by the results from updated workpaper WP3-223 provided in data response GRC2014-Ph-1_DR_DRA_153-Q13.

4. MWC 2F – Build IT Apps & Infrastructure

PG&E's TS recorded capital for MWC 2F in 2011 of $64,174 for Revision 1 of Fleet Management System Implementation. PG&E forecasts IT Applications and Infrastructure (MWC 2F) capital at $3.1 million in 2014, $2.4 million in 2015, and $1.2 million in 2016.[47]

[47] Ex. PG&E- 7, p. 3-33

Table 18-18
2007-2012 Recorded Data for Build IT Apps and Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$3,757	$7,370	$64	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 3-10. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

As discussed in the expense section of this section, DRA recommends that ratepayers not be required to fund two IT projects proposed by PG&E. As such, DRA has reduced PG&E's capital forecast for MWC 2F in 2014. DRA recommends $0.0 million of capital expenditures in 2012, $0.0 million in 2013, and $1.6 million in 2014.

VI. DISCUSSION / ANALYSIS OF SUPPLY CHAIN – MATERIALS LOGISTICS AND PLANNING

This section discusses the costs associated with warehousing and materials distribution services provided and managed by PG&E's Materials Operations Department. PG&E's Materials and Logistics Planning (MLP) manages a supply chain distribution network. MLP provides warehousing, transportation logistics, supplier quality assurance, materials field services (MFS), inventory planning, inventory control and management, investment recovery and emergency response (e.g., storm restoration, earthquakes, car pole accidents, major mudslides) functions to PG&E. MLP uses chargebacks to spread operating expenditures across all PG&E LOBs, including Gas Operations, Electric Operations, Customer Care, Energy Supply and other support organizations. Chargeback costs specific to the services MLP provides are included in each LOB chapter.[48]

[48] Ex. PG&E-7, p. 4-1, 4-2

The following tables summarize PG&E's request and DRA's recommendation for the MWCs within Supply Chain – Materials Logistics and Planning.

Table 18-19
Shared Services Expenses for TY2014
Supply Chain – Materials Logistics and Planning
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[49] (c)
MWC BI – Maint Buildings	$211	$211
MWC JV – Maintain IT Apps & Infra	$194	$1,110
Total	$405	$1,321

Table 18-20
Customer Care Capital Expenditures for 2012-2014
Supply Chain – Materials Logistics and Planning
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[50]		
	2012	2013	2014	2012	2013	2014
MWC 05 – Tools & Equipment	$387	$372	$382	$369	$372	$382
MWC 21 – Misc Capital	$401	$451	$463	$439	$451	$463
MWC 22 – Maintain Buildings	$0	$0	$2,736	$0	$0	$2,736
MWC 2F – Build IT Apps & Infra	$1,132	$0	$634	$600	$0	$4,267
Total	$1,920	$823	$4,215	$1,408	$823	$7,849

49 Ex. PG&E-7, p. 4-31.

50 Ex. PG&E-7, p. 4-31.

A. Expenses

PG&E forecasts MLP expenses of $1.3 million for 2014. Recorded expense for MLP was $1.2 million in 2011. PG&E's 2014 MLP forecast represents a 10% increase in expense from the base year 2011 recorded costs.[51]

1. MWC BI - Maintain Buildings, Expense

PG&E forecasts the 2014 expense for MWC BI at $211,000 to implement the MFS – Construct Permanent Warehouse Structures at the Antioch and San Carlos Service Centers[52]

Table 18-21
2007-2012 Recorded Adjusted Data for Maintain Buildings
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC BI	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 4-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not object to PG&E's request.

2. MWC JV – Maintain IT Applications and Infrastructure, Expense

PG&E forecasts 2014 expense of $1.1 million under MWC JV to implement the Materials Advanced Planning and Scheduling system and Transportation Management System initiatives.[53]

The Materials Advanced Planning and Scheduling System is an advanced inventory planning and scheduling module that replaces PG&E's current inventory planning system. The new advanced planning and scheduling system will improve

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[51] Ex. PG&E- 7, p. 4-2.

[52] Ex. PG&E- 7, p. 4-13

[53] Ex. PG&E-7, p. 4-14

access to materials for utility crews and optimize inventory levels by creating supply network transparency and aligning supply chain planning capability with PG&E's utility LOB's needs.[54]

PG&E states that the improved functionality will enable the supply chain organization to reduce or offset PG&E's inventory investment by up to $5 million and reduce capital equipment investment by up to $3 million (relative to work/demand levels). These savings will be realized in the first two years following the initial roll out: $1 million in inventory and $1 million in capital in 2015, and $4 million in inventory and $2 million in capital in 2016.[55]

The Transportation Management System will integrate with MLP's SAP-EWM (Extended Warehouse Management) system to provide advanced strategic and tactical planning, route optimization, real time visibility of assets, electronic data capture and performance reporting.[56] PG&E states that the expected cost savings include $100,000 savings expected in first year of implementation (2015) and $200,000 in subsequent years in reduced fuel expense as the result of a reduction in miles traveled of 10 percent.[57]

Table 18-22
2007-2012 Recorded Adjusted Data for Maintain IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$0	$328	$1,196	$388

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 4-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

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[54] Ex. PG&E- 7, p. 4-22

[55] Ex. PG&E- 7, p. 4-23

[56] Ex. PG&E- 7, p. 4-25

[57] Ex. PG&E- 7, p. 4-27

DRA recommends that the Materials Advanced Planning and Scheduling not be funded by ratepayers as the funds were requested in the 2011 rate case and implementation was deferred due to functional dependencies on other supply chain SAP enhancements.[58] As such, PG&E already received the funds and ratepayers should not have to fund this project twice. Further, ratepayers should be receiving the benefit in cost savings already.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose the Transportation Management System project. However, DRA adjusted the cost to 86% of PG&E's forecast. As discussed more fully later in this report, DRA reviewed PG&E's IT Concept Estimating Tool forecasts from the 2011 GRC with recorded data and determined that actual results have been 86% of forecast based on the use of that tool. As such, DRA makes a similar adjustment to the Transportation Management System project forecast for 2014.

B. Capital Expenditures

PG&E forecasts MLP capital needs of $1.4 million for 2012, $0.8 million for 2013, $7.8 million for 2014, $5.4 million for 2015, and $1.5 million for 2016. Recorded capital for MLP was $16.5 million in 2011.[59]

1. MWC 05 – Tools and Equipment, Capital

The 2011 recorded capital tools and equipment expenditures for MLP under MWC 05 was $265,000. This cost includes all capital tools and equipment acquired by MLP in 2011. PG&E forecasts 2012 through 2016 capital expenditures of $369,000 for 2012, $372,000 for 2013, $382,000 for 2014, $396,000 for 2015, and $410,000 for 2016.[60]

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[58] Ex. PG&E-7, p. 4-24 and PG&E Data Response to DRA data Request 252 Q01 "Yes, PG&E's 2011 forecast revenue requirement did include funding for the advanced planning and scheduling system because PG&E planned to implement the project during the 2011 GRC period."

[59] Ex. PG&E-7, pp. 4-2, 4-3.

[60] Ex. PG&E-7, p. 4-14

Table 18-23
2007-2012 Recorded Data for Tools & Equipment
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 05	$198	$508	$299	$486	$265	$387

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 4-9. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E's forecast for MWC 05 for the MLP.

2. MWC 21 – Miscellaneous Capital

The 2011 recorded miscellaneous capital labor costs for MLP under MWC 21 were $372,000. This cost represents two and one half FTEs[61] including overheads to support the investment recovery function for MLP in 2011. PG&E forecasts 2012 through 2016 capital expenditures of $439,000 for 2012, $451,000 for 2013, $463,000 for 2014, $476,000 for 2015, and $489,000 for 2016. The costs relate to investment recovery activities such as the disposition and sale of PG&E's surplus, obsolete or damaged equipment. The 2014 forecast of miscellaneous capital labor is $463,000, compared to 2011 recorded cost of $372,000. The increase represents one half FTE to support the investment recovery process.[62]

Table 18-24
2007-2012 Recorded Data for Misc Capital
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 21	$(3,174)	$305	$392	$377	$372	$401

Source: 2007-2011 data from Ex. PG&E-7, Workpapers WP 4-9. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E's forecast for MWC 21 for the MLP.

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[61] Full time equivalent positions

[62] Ex. PG&E- 7, p. 4-16

3. MWC 22 – Maintain Building, Capital

PG&E forecasts 2014 through 2016 total capital expenditures of $2.7 million for 2014, $2.5 million for 2015 and $630,000 for 2016 under capital MWC 22 to improve existing facilities[63]. PG&E determined the capital forecast for these projects by warehouse size requirement, cost per square foot to construct similar structures, and the need for additional materials shelving.[64]

Table 18-25
2007-2012 Recorded Data for Maintain Building
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 22	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 4-9. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E's forecast for MWC 22 for the MLP.

4. MWC 2F – Build IT Applications and Infrastructure, Capital

The 2014 and 2015 capital forecast of $4.3 million and $2.1 million under MWC 2F are to implement the Materials Advanced Planning and Scheduling system and the Transportation Management System initiatives.[65]

Table 18-26
2007-2012 Recorded Data for Build IT Apps & Infra
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$0	$8,382	$15,820	$1,132

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 4-9. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

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[63] Ex. PG&E- 7, p. 4-16

[64] Ex. PG&E-t 7, p. 4-30

[65] Ex. PG&E- 7, p. 4-21

As discussed above in the MWC JV, DRA recommends that ratepayers not fund the Materials Advanced Planning and Scheduling system as PG&E had requested funding for this project in the 2011 GRC.

DRA does not oppose the proposed Transportation Management System initiative, but does make an adjustment to 86% of PG&E's forecasted cost. The 86% adjustment reflects PG&E's actual results of other IT projects that PG&E had forecasted using the same IT concept estimate tool from the 2011 GRC.

VII. DISCUSSION / ANALYSIS OF SUPPLY CHAIN – SOURCING OPERATIONS

This section discusses the costs associated with materials procurement and other services managed by PG&E's Supply Chain – Sourcing Operations (Sourcing). Sourcing costs are spread across all PG&E lines of business, including distribution, transmission and generation. Only the portions of Sourcing's costs that support GRC funded activities are included in the forecasts contained in this section.[66] The following tables summarize PG&E's request and DRA's recommendation for the MWCs within Supply Chain – Sourcing Operations.

Table 18-27
Shared Services Expenses for TY2014
Supply Chain – Sourcing Operations
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[67] (c)
MWC JL – Procure Materials and Services	$7,328	$9,732
MWC JV – Maintain IT Applications and Infrastructure	$730	$3,345
Total	$8,058	$13,077

[66] Ex. PG&E-7, p. 5-2.

[67] Ex. PG&E-7, p. 5-33.

Table 18-28
Shared Services Capital Expenditures for 2012-2014
Supply Chain – Sourcing Operations
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[68]		
	2012	2013	2014	2012	2013	2014
MWC 2F – Build IT Applications and Infrastructure	$0	$0	$7,284	$0	$0	$10,020
Total	$0	$0	$7,284	$0	$0	$10,020

A. Expenses

Expense costs for Sourcing includes costs related to the overall procurement of services. PG&E forecasts that Sourcing's expenses will increase by $6.4 million in 2014 compared to 2011, for a total forecast of $13.1 million.[69]

1. MWC JL – Procure Materials and Services

PG&E's forecasted expense of $9.7 million in 2014 for MWC JL uses 2011 as the base year and escalated labor and non-labor costs based on PG&E's escalation guidelines. Historical labor and related costs were used to estimate the average cost per employee to adjust for additional headcount costs. In addition, specific assumptions were made for Supplier Diversity Program Enhancements, three additional headcount to support the program, and Supplier Diversity Technical Assistance Program.[70]

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[68] Ex. PG&E-7, p. 5-33.

[69] Ex. PG&E-7, p. 5-2

[70] Ex. PG&E-7, p. 5-32

Table 18-29
2007-2012 Recorded Data for Procure Materials & Services
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JL	$7,426	$7,309	$6,867	$5,836	$6,613	$6,042

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 5-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA's forecast is based on a five-year (2008-2012) average, escalated to 2014 dollars, which equals $7.3 million for 2014. A five-year average is an appropriate method as the recorded amounts in the table above lack a clear pattern, and the year-to-year variance is low, with movement in both directions.

2. MWC JV – IT Initiatives - Expense

PG&E's Sourcing forecast for MWC JV includes costs for Supplier Relationship Management Technical/Functional Upgrade, Implement Supplier Performance Management Technology, and Integrate Supply Chain with Enterprise Content Management project.[71] The Supplier Relationship Management Technical/Functional Upgrade proposes to upgrade the SRM system to Version 7.02 with projected cost of $17.8 million, which includes $2.7 million in expense in 2015 not included in this GRC forecast. The expense forecast for 2014 is $2.5 million.[72]

PG&E's Implement Supplier Performance Management Technology program includes formalized meetings between suppliers and PG&E executives multiple times a year to review the suppliers' performance is forecast at $0.5 million in expense in 2014.[73] PG&E's Integrate Supply Chain with Enterprise Content Management proposes to digitize physical documents and migrate existing content

[71] Ex. PG&E-7, p. 5-22 to p.5-31

[72] Ex. PG&E-7, p. 5-23

[73] Ex. PG&E-7, p. 5-27

to the Company's recently selected ECM platform, with the expense forecast for 2014 at $0.3 million.[74]

Table 18-30
2007-2012 Recorded Data for Maintain IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$0	$159	$92	$589

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 5-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends rejecting projects proposed by PG&E to formalize meetings and to digitize physical documents. DRA does not oppose upgrading the SRM system to Version 7.02. While DRA does not oppose upgrading to SRM Version 7.02, DRA recommends that the Commission normalize the expense over three years and that the forecast amount be reduced to 86% of forecast. The 86% reduction reflects DRA's global recommendation that IT projects that relied on PG&E's IT Concept Estimating Tool be adjusted to reflect the actual results of those 2011 GRC projects that used the same tool. Therefore, DRA forecasts $0.7 million in expenses for 2014.

B. Capital Expenditures

PG&E forecasts Sourcing capital funding for IT initiatives for 2014 of $10.0 million and for 2015 of $4.8 million. No funding is forecast for 2016.[75]

1. MWC 2F – Build IT Apps & Infrastructure

As discussed above, PG&E's Sourcing forecast includes three IT initiatives. The capital forecast for the Supplier Relationship Management Technical/Functional Upgrade is $8.5 million for 2014 and $4.1 million in 2015. PG&E does not forecast capital for the Implement Supplier Performance Management Technology program.

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[74] Ex. PG&E-7, p. 5-28

[75] Ex. PG&E-7, p. 5-3

PG&E's capital forecast for 2014 is $1.6 million and $0.7 million in 2015 for the Integrate Supply Chain with Enterprise Content Management project.[76]

Table 18-31
2007-2012 Recorded Data for Build IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 5-13. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

As discussed above, DRA does not oppose the Supplier Relationship Management Technical/Functional Upgrade program. However, while not opposing the project, DRA does make an adjustment to PG&E's forecasted amount to 86% of request. The 86% adjustment reflects DRA's review and analysis of PG&E's 2011 GRC request with actual results that used the IT Concept Estimating Tool.

DRA opposes the project to digitize existing physical document and recommends that ratepayers not fund this project. Therefore, DRA forecasts capital expenditures of $0.0 million in 2012, $0.0million in 2013, and $7.3 million in 2014.

VIII. DISCUSSION / ANALYSIS OF REAL ESTATE

This section discusses the costs associated with managing PG&E's buildings and real estate assets. These facilities are either owned or leased, and include offices, contact centers, service centers, shops, warehouses, and garages. The following tables summarize PG&E's request and DRA's recommendations for the MWCs within Real Estate.

[76] Ex. PG&E- 7, p. 5-31

Table 18-32
Shared Services Expenses for TY2014
Real Estate
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[77] (c)
MWC BI – Maintain Building	$10,413	$24,903
MWC JH – Implement Real Estate Strategy	$4,040	$6,837
MWC JV – Maintain IT Applications and Infrastructure	$0	$850
Total	$14,453	$32,590

Table 18-33
Shared Services Capital Expenditures for 2012-2014
Real Estate
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[78]		
	2012	2013	2014	2012	2013	2014
MWC 22 - Maintain Buildings	$46,733	$40,188	$41,293	$48,976	$40,448	$45,674
MWC 23 – Implement Real Estate Strategy	$3,877	$0	$10,048	$0	$0	$35,378
MWC 2F – Build IT Applications and Infrastructure	$0	$0	$0	$0	$0	$550
Total	$50,610	$40,188	$51,341	$48,976	$40,448	$81,602

[77] Ex. PG&E-7, p. 6-126.

[78] Ex. PG&E-7, p. 6-127.

A. Expenses

PG&E's Corporate Real Estate (CRE) forecasts 2014 expense of $32.6 million for real estate. Recorded adjusted expense was $12.0 million in 2011. CRE's 2014 expense forecast for its real estate program represents a 172 percent increase from base year recorded costs.[79]

1. MWC BI – Maintain Buildings

MWC BI includes Base Building Program, Building Seismic Safety Program, and ADA Compliance Program.

The Base Building Program encompasses expense and capital replacement costs to extend the life of building components, correct building component deficiencies, improve equipment-operating efficiencies, replace failed or functionally obsolete building components, and increase the operating reliability of PG&E's buildings and yards.[80] The Base Building Program is managed by subprograms: Building Systems, Roofs, Interiors, Exteriors, Paving; Fencing, Yard Lighting and Landscaping; Security Systems; and Operational Support and Emergency Work. PG&E states that CRE's 2014 GRC forecast for Base Building Program expense and capital includes additional expenditures to eliminate building condition deficiencies and bring its buildings and yards up to minimum condition standards over a 6-year period beginning in 2012. CRE's forecast cost of this initiative in 2014 is $11.4 million above the 2011 recorded expense for the Base Building Program.[81]

PG&E states that the CRE has undertaken a multi-year Building Seismic Safety Program to assess and improve the seismic safety of its buildings. CRE's Building Seismic Safety Program aims to improve the life safety and seismic performance of Company buildings located in areas predicted to experience a higher risk of strong seismic activity, and in particular those buildings with a higher risk of

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[79] Ex. PG&E-7, p. 6-2

[80] Ex. PG&E- 7, p. 6-26

[81] Ex. PG&E- 7, p. 6-32

sustaining substantial damage in the event of an earthquake. PG&E states that to date, CRE has completed building seismic safety work at 78 common utility plant buildings.[82] In this GRC period, CRE expects to complete structural seismic safety work at 16 additional buildings at ten locations. In addition, CRE will complete non-structural seismic bracing upgrades to the raised computer floor on the B-1 level of 77 Beale Street and seismically anchor the building's emergency generator and computer equipment in the San Francisco Data Center.[83]

Recorded costs for the Building Seismic Safety Program were $2.7 million of expense in 2011. CRE forecasts Building Seismic Safety Program expense of $4.2 million for 2014.[84]

PG&E says that its original surveys were completed shortly after ADA was enacted and that many have become outdated because U.S. Department of Justice standards, California Title 24, and local building codes "continue to evolve."[85] PG&E says that the purpose of the Company's ADA Compliance Program is to ensure that CRE-managed buildings and yards are in compliance with these changing requirements. PG&E also states that, as part of the 2007 and 2011 GRC settlements, PG&E entered into Memoranda of Understanding (MOU) with Disability Rights Advocates (DisabRA) that, among other items, established milestones for PG&E to complete independent assessments of its Customer Service Offices (CSO)s by a third-party accessibility expert and make recommended accessibility improvements to these buildings. PG&E states that CRE expects to complete all recommended ADA accessibility improvements at CSOs required by PG&E's MOU with DisabRA by the end of 2013. Beginning in 2014, the ADA Compliance Program forecast in this GRC will focus on ADA and Title 24 accessibility compliance at other

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[82] Ex. PG&E- 7, p. 6-41 and 6-42

[83] Ex. PG&E-7, p. 6-42

[84] Ex. PG&E-7, p. 6-53

[85] Ex. PG&E-7, p. 6-55.

Company buildings and in the non-CSO portion of buildings previously addressed at part of PG&E MOU with DisabRA.[86]

Recorded expenses for the ADA Compliance Program were $2.8 million in 2011. CRE forecasts Enhanced ADA Compliance Program expense of $5.9 million for 2014.

Table 18-34
2007-2012 Recorded Adjusted Data for Maintain Buildings
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC BI	$12,045	$6,087	$7,813	$8,536	$8,913	$15,960

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-2. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends using a five-year average, escalated to 2014 to forecast PG&E's 2014 MWC BI funding as maintenance should be a regular recurring event that can be planned and managed. And while the $10.4 million is less than the recorded 2012 expense, it is higher than the other four years used in the average, smoothing out any under- or over- spending.

The Commission should also consider that PG&E was provided $26.5 million in the 2011 GRC, but reduced its budget for MWC BI by $18.2 million to $8.3 million. PG&E says the "[d]ecrease reflects the decision not to pursue in 2011 the following projects in order to fund higher priority work in other parts of the Company: (i) 77 Beale St./One Market Plaza project; (ii) Customer Office Refurbishment Project; (iii) certain non-mandatory ADA surveys; and (iv) certain Base Building maintenance projects (e.g., roofing repairs, HVAC repairs, carpet replacement, interior painting)."[87]

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[86] Ex. PG&E-7, pp. 6-55 and p.6-56.

[87] Pacific Gas and Electric Company's August 3, 2011 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018, p.8-6.

PG&E's TY 2014 application includes a request for three of the four projects that it delayed from the 2011 GRC. In effect, PG&E is requesting 93%[88] of the delayed 2011 GRC funded projects again in this application.

2. MWC JH – Implement Real Estate Strategy

MWC JH encompasses the Real Estate Planning and Transaction program and the Real Estate Solutions program. Through its Real Estate Planning and Transactions Program, PG&E states that CRE will improve the management of vacant properties and reduce future costs of underutilized and potentially surplus real estate by accelerating the disposal of real estate no longer needed for utility purposes.[89]

Recorded expenses for the Real Estate Planning and Transactions Program were $3.1 million in 2011. CRE forecasts Real Estate Planning and Transactions Program costs of $5.0 million expense.[90]

Through its Real Estate Solutions Program, PG&E states CRE plans to refurbish, relocate, replace or close offices and service centers to correct condition deficiencies, improve functionality, implement workplace improvements, and meet business needs. PG&E states that within this program, CRE also plans to provide additional office space where needed and refurbish floors at 77 Beale Street.[91]

Recorded cost for the Real Estate Solutions Program was $0 million expense in 2011. CRE forecasts Real Estate Solutions Program expense of $2.0 million for 2014.[92]

[88] GRC2014-Ph-1_DR_DRA_203-Q01Atch01 (20,900/22,570 = 93%)

[89] Ex. PG&E-7, p. 6-25

[90] Ex. PG&E-7, p. 6-63

[91] Ex. PG&E-7, p. 6-25

[92] Ex. PG&E-7, p. 6-103

Table 18-35
2007-2012 Recorded Adjusted Data for Implement Real Estate Strategy
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JH	$3,976	$4,586	$3,191	$3,250	$3,130	$3,887

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-2. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

PG&E requested funding for MWC JH for 2014 is $6.8 million, and is 76% higher than the 2012 actual recorded expense.[93] PG&E's request exceeds any of the past six years. As can be seen from the table above, in the past six years, in only one year did PG&E spend more than $4 million in this MWC. PG&E is now requesting a 76% increase from 2012.

DRA recommends that the Commission use the five- year average, escalated to 2014, to forecast PG&E's 2014 MWC JH funding. As the table shows, the PG&E's spending pattern in this MWC has been closer to $4 million, not $6.8 million. The Commission should adopt the five year average to forecast 2014 expenses.

3. MWC JV – Maintain IT Applications and Infrastructure

PG&E forecasts includes IT projects in the Base Building Program and the Real Estate Planning and Transaction Program totaling $0.85 million. CRE's 2014 forecast for the Base Building Program includes $0.65 million expense for two IT application projects. This initiative will implement enterprise project management and content management tools within CRE in order to maintain CRE employee productivity and eliminate legacy applications by migrating to IT enterprise solutions. PG&E states that this IT initiative was identified in the 2011 GRC, but did not move forward as the total revenue requirement provided by the 2011 GRC decision was

[93] ($6,837 (from Ex. PG&E- 7, p. 6-105) - $3,887) = $2,950/$3,887 = 76%.

less than PG&E's 2011 GRC forecast and therefore insufficient to support all of the work forecast in PG&E's 2011 GRC testimony.[94]

PG&E's CRE is also forecasting expense within the Real Estate Planning and Transactions program for an IT project to integrate CRE's standalone occupancy planning database with PG&E's information management systems.[95] Similar to the previous IT initiative, this initiative was also identified in the 2011 GRC, but did not move forward for the same reason. The forecast cost of this initiative is $200,000 expense in 2014.[96]

Table 18-36
2007-2012 Recorded Adjusted Data for Maintain IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-2. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA opposes ratepayer funding for these IT projects. While PG&E states that the total revenue requirement provided by the 2011 GRC decision was less than PG&E's 2011 GRC forecast and therefore insufficient to support all of the work forecast in PG&E's 2011 GRC testimony,[97] PG&E's March 2012 Budget Report[98] shows that PG&E had $608,000 left in its 2011 budget. Ratepayers should receive benefit for the funds provided in 2011 that were not spent. Ratepayers should not pay twice.

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[94] Ex. PG&E-7, p. 6-37

[95] Ex. PG&E-7, p. 6-60

[96] Ex. PG&E-7, p. 6-63

[97] Ex. PG&E-7, p. 6-6

[98] Pacific Gas and Electric Company's March 30, 2012 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018, p. 9-1.

B. Capital Expenditures

CRE forecasts 2012-2016 capital expenditures of $49.0 million, $40.5 million, $81.6 million, $96.1 million and $82.7 million, respectively. Recorded adjusted capital expenditures were $56.0 million for 2010 and $40.6 million for 2011, and $50.6 million in 2012. CRE's 2014 capital forecast for its real estate programs represent a 101 percent increase from base year recorded costs.[99]

1. MWC 22 – Maintain Building

Capital costs under MWC 22 include the Base Building Program and the Building Seismic Safety Program.

The Base Building Program encompasses capital replacement costs to extend the life of building components, correct building component deficiencies, improve equipment-operating efficiencies, replace failed or functionally obsolete building components, and increase the operating reliability of PG&E's buildings and yards.[100] The Base Building Program is managed by subprograms: Building Systems, Roofs, Interiors, Exteriors, Paving; Fencing, Yard Lighting and Landscaping; Security Systems; and Operational Support and Emergency Work. PG&E states that CRE's 2014 GRC forecast for Base Building Program capital includes additional expenditures to eliminate building condition deficiencies and bring its buildings and yards up to minimum condition standards over a 6-year period beginning in 2012. PG&E's CRE forecast 2014 capital cost of $44.125 million for the Base Building Program.

PG&E's Building Seismic Safety Program aims to improve the life safety and seismic performance of Company buildings located in areas predicted to experience a higher risk of strong seismic activity, and in particular those buildings with a higher risk of sustaining substantial damage in the event of an earthquake. PG&E states that to date, CRE has completed building seismic safety work at 78 common utility

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[99] Ex. PG&E-7, pp. 6-2 and p. 6-3

[100] Ex. PG&E-7, p. 6-26

plant buildings.[101] In this GRC period, CRE expects to complete structural seismic safety work at 16 additional buildings at ten locations. In addition, CRE will complete non-structural seismic bracing upgrades to the raised computer floor on the B-1 level of 77 Beale Street and seismically anchor the building's emergency generator and computer equipment in the San Francisco Data Center.[102] PG&E forecasts $1.549 million in 2014 for the Building Seismic Safety Program.[103]

Table 18-37
2007-2012 Recorded Data for Maintain Building
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 22	$27,302	$37,064	$36,222	$41,367	$34,175	$46,733

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-17. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

DRA accepts PG&E's 2012 recorded capital expenditures of $46.7 million for MWC 22 for 2012. DRA recommends that the Commission use a five-year average to forecast CRE's 2013 and 2014 capital funding needs for MWC 22. The five-year average provides the best forecasting methodology as it reflects PG&E's actual decisions. The Commission should not rely solely on PG&E's forecast as the timing and scope of the projects included in its request are at the discretion of PG&E.

PG&E's August 3, 2011 Budget Report illustrates that the ratepayer funds provided in the 2011 GRC for MWC 22 (previously MWC 78 and MWC 88) have been used elsewhere. In that August 3, 2011 Budget Report, the MWC 22/23 (previously MWC 78) budget was decreased by $15.4 million from the GRC imputed amount of $65.4 million to $50 million. Also, MWC 22 (previously MWC 88) was decreased by $5.2 million from GRC imputed amount of $5.7 million to $0.5

[101] Ex. PG&E- 7, pp. 6-41 and 6-42

[102] Ex. PG&E- 7, p. 6-42

[103] Ex. PG&E- 7, p. 6-107

million.[104] PG&E provides an explanation for the budget changes as "[d]ecreases reflect the decision not to pursue in 2011 the following projects in order to fund higher priority work in other parts of the company…"

DRA makes no judgment on the shifting of PG&E's budget. DRA simply highlights the fact that PG&E's management maintains its ability to shift priorities, change project scope, and timing. At the same time, however, ratepayers should not pay based solely on what PG&E management wants, but rather based on what PG&E's has delivered. Using a five- year average, escalated to 2014 provides this link to PG&E's past management decisions.

2. MWC 23 – Implement Real Estate Strategy

Capital costs under MWC 23 represent the Real Estate Solutions Program. PG&E's CRE forecast 2014 capital at $35.4 million.[105] CRE's forecast for the Real Estate Program includes expenditures to furnish or replace office and service center buildings, to correct condition deficiencies, improve functionality, implement workplace improvements, and meet current business needs. CRE's forecast for this program also includes expenditures to provide additional office space where needed, refurbish floors at 77 Beale Street and improve the operating reliability of the Fairfield data center.[106]

Table 18-38
2007-2012 Recorded Data for Implement Real Estate Strategy
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 23	$1,860	$7,183	$414	$14,643	$6,397	$3,877

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-17. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

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[104] Pacific Gas and Electric Company's August 3, 2011 Budget Report in Compliance with California Public Utilities Commission Decision 11-05-018, p.8-10 and p. 8-11.

[105] Ex. PG&E-7, p. 6-107

[106] Ex. PG&E-7, p. 6-66

As can be seen from the table above, PG&E's 2014 forecast of $35.4 million far exceeds anything recorded in the past six years. In fact, PG&E's 2014 request for MWC 23 exceeds what PG&E has spent in this MWC for the past six years combined.

DRA recommends $10 million for 2014. DRA's forecast is based on its recommendation that one project be rejected and that the remaining balance be normalized over three years.[107] DRA's recommendation is consistent with historical capital spending for this MWC and should be adopted.

DRA recommends rejecting one project proposed by PG&E under the Real Estate Solutions program. That project is to provide a dedicated 12 kV power feed from the Cordelia Substation, located approximately six miles away, to the Fairfield Data Center that PG&E will serve as PG&E's primary IT disaster recovery center when the new Sacramento Data Center is fully operational. PG&E says in its testimony that most disruptions were momentary (one was over 22 minutes in duration) and that secondary systems such as uninterruptible power systems, batteries and standby generators are in place to support critical operations when utility power disruptions occur.[108] PG&E has also stated in its testimony that "leading up to the 2011 GRC, PG&E upgraded its Fairfield Data Center by increasing electric capacity and installing more robust cooling systems."[109] As this Fairfield Data Center is to become a disaster recovery center, and already has secondary systems, DRA recommends not funding a dedicated power feed. PG&E had forecasted $0 in 2012, $0 in 2013, and $5.2 million in 2014.

[107] ($35,378-$5,233)/3 = $10,048

[108] Ex. PG&E- 7, p. 6-102

[109] Ex. PG&E-7, p. 8-46

3. MWC 2F – Build IT Applications and Infrastructure

Capital costs under MWC 2F represent IT projects in the Base Building Program and the Real Estate Planning and Transactions Program. PG&E forecasts $0.350 million in capital cost under the Base Building Program for 2014. This initiative will implement enterprise project management and content management tools within CRE in order to maintain CRE employee productivity and eliminate legacy applications by migrating to IT enterprise solutions. PG&E states that this IT initiative was identified in the 2011 GRC, but did not move forward as the total revenue requirement provided by the 2011 GRC decision was less than PG&E's 2011 GRC forecast and therefore insufficient to support all of the work forecast in PG&E's 2011 GRC testimony.[110]

PG&E's CRE is also forecasting $200,000 in capital cost within the Real Estate Planning and Transactions program for an IT project to integrate CRE's standalone occupancy planning database with PG&E's information management systems.[111] Similar to the previous IT initiative, this initiative was also identified in the 2011 GRC, but did not move forward for the same reason.

Table 18-39
2007-2012 Recorded Data for Build IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$0	$0	$0	$0

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 6-17. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

DRA opposes ratepayer funding for these two projects. PG&E has not spent its 2011 budgeted expense amounts for IT. Ratepayers should not fund additional IT projects until the funds provided in 2011 have been used.

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110 Ex. PG&E- 7, p. 6-37

111 Ex. PG&E- 7, p. 6-60

IX. DISCUSSION / ANALYSIS OF ENVIRONMENTAL PROGRAM

This section discusses the costs associated with "…developing and maintaining systems to track and manage environmental commitments and requirements, protecting sensitive species and other natural resources, managing land in a manner that protects public safety, and ensuring that PG&E's facilities and practices comply with federal, state, and local environmental laws and regulations."[112]

The following tables summarize PG&E's request and DRA's recommendation for the MWCs within the Environmental Program.

Table 18-40
Shared Services Expenses for TY2014
Environmental Program
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[113] (c)
MWC AK – Manage Environmental Operations	$11,110	$16,112
MWC AY – Habitat and Species Protection	$533	$533
MWC CR – Manage Waste Disposal and Transportation	$2,899	$2,899
MWC ES – Environmental Projects and Initiatives	$882	$905
MWC FA – Special A&G/Other Costs	$1,403	$1,403
MWC JE – Manage Land Services	$2,140	$3,340
MWC JK – Manage Environmental Remediation	$7,177	$7,177
MWC JV – Maintain IT Apps & Infrastructure	$1,100	$4,400
Total	$27,245	$36,769

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112 Ex. PG&E-7, p.1-22, lines 11-15.

113 Ex. PG&E-7, p. 7-43.

Table 18-41
Shared Services Capital Expenditures for 2012-2014
Environmental Program
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[114]		
	2012	2013	2014	2012	2013	2014
MWC 5 – Land and Environmental Management Tools and Equipment	$180	$256	$350	$175	$256	$350
MWC 12 – Environmental Operations	$3,226	$4,330	$4,956	$4,941	$6,330	$6,956
MWC 2F – Build IT Applications and Infrastructure	$563	$0	$250	$800	$0	$4,220
Total	$3,969	$4,586	$5,556	$5,916	$6,586	$11,526

A. Expenses

PG&E includes environmental costs in its revenue requirement calculation in three categories: (1) A&G expenses for the organizations that charge to A&G; (2) O&M expenses within the Environmental MWCs directly managed by the Environmental organization; and (3) costs embedded in projects, activities, and the programs managed by other departments.

Only Categories 1 and 2 are addressed in this chapter for rate recovery purposes. Category 3 charges are discussed in various other chapters throughout this application.[115]

1. MWC AK – Environmental Operations

MWC AK includes expenses for routine environmental work for the Company, which typically includes the day-to-day costs that are part of each facility's normal operation. This includes labor costs of environmental professionals and facility

[114] Ex. PG&E-7, p. 7-43.

[115] Ex. PG&E-7, p. 7-2

personnel who perform environmental compliance tasks, as well as materials, contracts, permits, and fees.[116]

PG&E forecasts MWC AK expenses for 2014 of $16.1 million compared to the 2011 recorded cost of $9.7 million. PG&E states that the main driver in the 2014 increase is $5.3 million in MWC AK for the Air Resources Board (ARB) annual Cost of Implementation Fee legally mandated by Assembly Bill (AB) 32 which is recoverable from end-use gas transportation and bundled electric generation customers. PG&E states that the remaining increase is necessary to pay increasing permit fees to regulatory agencies and for increases in labor and contract costs.[117]

Table 18-42
2007-2012 Recorded Adjusted Data for Manage Environmental Oper
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC AK	$8,800	$9,737	$10,592	$9,468	$9,694	$10,051

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends utilizing a five year average, escalated to 2014 dollars, which results in a forecast of $11.1 million. Subsumed in that forecast is DRA's recommendation that the $5.3 million in the ARB annual Cost of Implementation Fee should not be included in PG&E's revenue requirement since this is recoverable from end-use gas transportation and bundled electric generation customers.

2. MWC AY – Habitat and Species Protection/Environmental Stewardship Program

MWC AY includes expenses to comply with regulations to protect endangered species and sensitive habitats through a broad range of environmental stewardship programs. These costs include post-permit, Habitat Conservation Plans (HCP) administration costs, plus the forecast portion of the mitigation land offset costs that

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[116] Ex. PG&E- 7, p. 7-21

[117] Ex. PG&E- 7, p. 7-23 and p. 7-24

will be charge to expense projects (anticipated to be 10 percent of the total) when costs are incurred in the future.[118]

The 2014 expense under MWC AY is forecast to be $0.5 million compared to 2011 recorded costs of $0.2 million. PG&E states that the increase is due to additional staff required to implement the Bay Area and Multi-Region HCPs expected by 2014, plus new contract development costs required for programmatic compliance in the San Joaquin, Bay Area and Multi-Region territories.

Table 18-43
2007-2012 Recorded Adjusted Data for Habitat and Species Protection
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC AY	$3,144	$1,337	$755	$351	$191	$1,405

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E forecasted expense for MWC AY.

3. MWC CR – Hazardous Waste Transportation and Disposal

MWC CR includes expenses for transportation and disposal of hazardous and other regulated wastes in accordance with federal and state laws and regulations, which, according to PG&E, continue to become more stringent. The costs include in-state and out-of-state transportation and disposal, state fees and taxes associated with waste disposal, and treatment if required for materials containing PCBs,[119] mercury, and other potentially hazardous substances.[120]

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[118] Ex. PG&E- 7, p. 7-24

[119] Polychlorinated biphenyl

[120] Ex. PG&E- 7, p. 7-25

PG&E's 2014 expense forecast under MWC CR is $2.9 million, compared to the 2011 recorded cost of $3.2 million. This decrease is due to contract costs that were carried from 2010 to 2011. This was a one-time carryover and it is assumed that costs associated with waste disposal will not increase significantly over the next three years.[121]

Table 18-44
2007-2012 Recorded Adjusted Data for Manage Waste Disposal & Transp
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC CR	$2,544	$2,579	$3,135	$1,946	$3,228	$3,389

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E forecasted expense for MWC CR.

4. MWC ES – Environmental Projects and Initiatives

MWC ES includes costs associated with repairing, replacing, or upgrading equipment to comply with environmental regulations. It also includes environmental initiatives that are conducted for the benefit of the Company as a whole. Project work and costs are projected to increase due to increased regulations and aging facilities.[122]

PG&E forecasts expenses for 2014 of $0.9 million under MWC ES compared to $0.5 million in 2011 recorded costs. PG&E states that this increase is due to an anticipated increase in retrofits and repairs of fuel and hazardous waste storage tanks required by regulation, and for Spill Prevention Control and Countermeasure (SPCC) Plan modifications at distribution substations. PG&E forecasts most of this

[121] Ex. PG&E-7, p. 7-25

[122] Ex. PG&E-7, p. 7-26

increase in 2012, with costs remaining relatively flat thereafter. The 2014 forecast is similar to or less than PG&E's recorded costs in MWC ES prior to 2010.[123]

Table 18-45
2007-2012 Recorded Adjusted Data for Implement Environment Project
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC ES	$1,826	$1,288	$834	$662	$462	$678

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA recommends using a five year average, escalated to 2014 dollars, to forecast MWC ES. DRA believes its forecast of $0.882 million is sufficient to fund these projects and initiatives, and notes that in its testimony, PG&E forecasted most of the increase in 2012, yet the actual recorded 2012 expense was $177,000 less than PG&E had forecasted for that year.

5. MWC FA – Special A&G/Other Costs-Budget Department

MWC FA costs include the contracts and labor of the 6.5 Environmental Policy FTE employees represented as A&G.[124] The 2014 forecast of A&G for the Environmental Policy Department is $1.4 million, compared to the 2011 recorded cost of $1.6 million.[125]

[123] Ex. PG&E-7, p. 7-26

[124] Ex. PG&E-7, p. 7-19

[125] Ex. PG&E-7, p. 7-19

Table 18-46
2007-2012 Recorded Adjusted Data for Spc A&G/Other Costs
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC FA	$1,325	$1,679	$1,746	$1,590	$1,622	$1,377

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E forecasted expense for MWC FA.

6. MWC JE – Manage Land Services

MWC JE includes a variety of land management and land rights support activities. Land rights support work included maintenance of the Land Rights Library, coordination with state Board of Equalization, staff training and maintenance of guidance documents and management of properties leased or licensed by others. Land management work included land management administration, sustainable forest management and fuel (i.e., timber) reduction projects, annual timber inventory, seed storage and conifer seed growing.[126]

PG&E forecasts expenses for 2014 of $3.3 million under MWC JE, compared to $2.0 million recorded cost in 2011. Of this increase in funding, $1.1 million supports PG&E's key initiative to develop a land stewardship management program, while $0.2 million support other land management activities and labor escalation.[127]

Table 18-47
2007-2012 Recorded Adjusted Data for Manage Land Services
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JE	$2,207	$1,882	$1,730	$1,942	$1,972	$2,027

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

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[126] Ex. PG&E- 7, p. 7-27

[127] Ex. PG&E- 7, p. 7-27

DRA recommends utilizing a five year average, escalated to 2014 dollars, to forecast expenses for MWC JE. Therefore, DRA's forecast for 2014 is $2.1 million in expenses. DRA does not support ratepayer funding for PG&E's Land Stewardship Program[128] as PG&E must already inspect and manage its properties. And while PG&E states that "active management cost less by reducing illegal dumping, trespass, encroachments, or other illegal third party activities on company lands"[129] PG&E's proposal does not reflect these savings. DRA does not see sufficient benefit for spending $1.1 million on this program.

7. MWC JK – Environmental Remediation and Manage Environmental Remediation (Internal Expense)

As noted above, environmental costs include A&G expenses and O&M expenses. PG&E has a separate forecast for each category, but uses the same MWC JK. The 2011 recorded A&G expenses for the Environmental Remediation Department was $5.8 million. This includes labor for managing cleanup of contaminated sites, contract costs that support the overall cleanup program, legal support, and associated miscellaneous costs. The labor cost equates to 24 FTE employees who charge to A&G orders.[130]

The A&G expense forecast for 2014 is $7.1 million, compared to the 2011 recorded cost of $5.8 million. This increase is due to three new employees, labor escalation, increased legal support, and increased level of effort from departments that provide field support.

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[128] PG&E's Land Stewardship Program is different from the Pacific Forest and Watershed Lands Stewardship Council (Stewardship Council) which was established in 2004 as part of PG&E's bankruptcy settlement. The Stewardship Council is a private, non-profit organization while PG&E's Land Stewardship Program is an internal PG&E program to produce and manage a management plan.

[129] Ex. PG&E- 7 Workpaper, p. WP 7-46

[130] Ex. PG&E- 7, p. 7-20

The O&M expense MWC JK expenses include: (1) internal labor and other expenses associated with management and support of site remediation; and (2) external costs of contractors, external legal services, and associated fees.[131]

PG&E forecasts $0.1 million in expenses for 2014, compared to 2011 recorded costs of $0.2 million. This decrease is driven by a decrease in spending on above-ground and under-ground storage tanks, offset in part by a slight increase in spending on distribution substation sites.[132]

Table 18-48
2007-2012 Recorded Adjusted Data for Manage Environ Remediation
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JK	$3,454	$4,510	$5,353	$6,548	$5,927	$6,131

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E forecasted expense for MWC JK

8. MWC JV – Maintain IT Applications and Infrastructure

The 2011 recorded costs for MWC JV were $0.5 million and included costs to improve IT applications and infrastructure. The 2014 forecast of expense for MWC JV is $4.4 million. PG&E states that this increase over 2011 cost supports several key initiatives, including: Enhancing PG&E's Environmental, Health, and Safety Management System, which include deploying mobile technologies; Improving environmental review and permitting of construction projects; Expanding

[131] Ex. PG&E-7, p. 7-28

[132] Ex. PG&E-7, p. 7-29

programmatic and regional permits, Enhancing electronic document management; and Upgrading the Building and Land Management System.[133]

Table 18-49
2007-2012 Recorded Adjusted Data for Maintain IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV	$0	$0	$0	$0	$531	$1,148

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

DRA opposes ratepayer funding for two projects proposed by PG&E as there are minimal benefits to ratepayers. PG&E's proposal to spend $2.8 million in expense in 2014 (and $3.32 million in capital) for Enhancing PG&E's Environmental, Health, and Safety Management System seems excessive to achieve cost avoidance in data entry and reporting efficiencies, decreased costs of compliance, software purchases, licenses and hosting fees.[134] In addition, PG&E is not able to quantify these supposed cost avoidances. Similarly, PG&E's proposal to spend $0.5 million in expense in 2014 (and $0.65 million in capital) for enhancing electronic document management also appears excessive to achieve non-cost benefits. PG&E did not include any cost benefits for this project.

DRA therefore recommends $1.1 million in 2014 expenses for MWC JV.

B. Capital Expenditures

As discussed in the expense section, the O&M expenses and capital expenditures within the Environmental MWC include labor, contract, material, permit fees, and other costs associated with distribution and customer service projects, activities, and initiatives required to comply with environmental regulation.[135]

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[133] Ex. PG&E-7, p. 7-27 and p. 7-28

[134] Ex. PG&E-7 Workpapers, p. WP 7-51

[135] Ex. PG&E-7, p. 7-2

PG&E requests that the Commission adopt its capital expenditure forecasts of $5.9 million for 2012, $6.6 million for 2013, $11.5 million for 2014, $7.7 million for 2015, and $7.4 million for 2016. PG&E states that the 2014 increase in forecast spend is being driven by IT improvements associated with several of PG&E's key initiatives under the Environmental Program.[136] DRA recommends $3.969 million in capital expenditures for 2012 (which is equal to PG&E's 2012 recorded costs), $4.586 million in 2013, and $5.557 million in 2014.

1. MWC 05 – Tools and Equipment

MWC 05 is used to purchase tools and equipment for field employees. The 2011 recorded costs were $0.3 million. In 2012, 2013, 2014, 2015, and 2016, PG&E forecasts $0.2 million, $0.3 million, $0.4 million, $0.4 million, and $0.4 million, respectively. Increased costs are for deployment of improved survey tools.[137]

Table 18-50
2007-2012 Recorded Data for Tools & Equipment
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 05	$506	$318	$268	$67	$322	$180

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-15. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

After reviewing PG&E's testimony, workpapers, and discovery responses, DRA does not oppose PG&E forecasted capital costs for MWC 05.

2. MWC 12 – Environmental Capital

MWC 12 includes capital costs for environmental projects, and for HCP development costs and HCP mitigation land offsets. Total 2011 recorded costs in MWC 12 were $3.6 million. The environmental projects in MWC 12 include capital

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136 Ex. PG&E-7, p. 7-3

137 Ex. PG&E-7, p. 7-33

construction and related projects required for compliance with environmental laws and regulations.[138]

PG&E forecasts capital expenditures of $4.9 million, $6.3 million, $7.0 million, $6.1 million and $6.3 million for 2012, 2013, 2014, 2015 and 2016, respectively. The year-over-year increase through 2014 result from a combination of HCP costs increasing as the Bay Area and Multi-Region HCPs permits are obtained, and the increased cost of capital environmental projects.[139]

Table 18-51
2007-2012 Recorded Data for Implement Environment Projects
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 12	$2,998	$3,425	$4,747	$3,717	$3,649	$3,226

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-15. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

DRA recommends decreasing PG&E's request by the $2 million for monies that PG&E has already received. As PG&E states in its testimony "…During the 2011 GRC, PG&E forecasted an additional $2 million annually between 2011 and 2013 to implement a program to remove 20 additional underground and 20 additional above-ground fuel tanks beyond its normal number of tanks removed. The program was not initiated because….The program proved to be infeasible due to business drivers….Those funds were otherwise assigned to other capital projects through PG&E's annual budget prioritization process."[140] Ratepayers already paid for this project, and should not have to pay again as the costs are already embedded in PG&E's revenue requirement. As such, DRA recommends reducing PG&E's request by $2 million for MWC 12.

[138] Ex. PG&E-7, p. 7-30

[139] Ex. PG&E-7, p. 7-31

[140] Ex. PG&E-7, p. 7-31 and p. 7-32

3. MWC 2F – Build IT Applications and Infrastructure

The 2011 recorded costs for MWC 2F were $1.5 million and included development of the HCP Portal Enhancement Project for the San Joaquin region.[141]

The 2012, 2013, 2014, 2015, and 2016 forecast capital costs for IT improvements are $0.8 million, $0, $4.22 million, $1.25 million, and $0.8 million, respectively.[142] These IT capital costs are the same as discussed in the IT expense section.

Table 18-52
2007-2012 Recorded Data for Build IT Apps & Infrastructure
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F	$0	$0	$0	$397	$1,499	$563

Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 7-15. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

As DRA recommended in the discussion of MWC JV expenses, DRA recommends rejecting PG&E's Improve environmental Health & Safety (EHS) Compliance Management project and Enterprise Content Management for Environmental project that do not justify the cost. The cost and non-cost benefits do not justify the expenditure. DRA accepts PG&E's 2012 recorded expenditures of $0.562 million, and 2013 capital forecast of $0. Therefore, DRA recommends capital expenditures of $0.562 in 2012, $0 in 2013, and $0.25 million in 2014.

[141] Ex. PG&E- 7, p. 7-32

[142] Ex. PG&E- 7, p. 7-32

X. DISCUSSION / ANALYSIS OF INFORMATION TECHNOLOGY COSTS

This section discusses the costs associated with "…supporting ongoing maintenance and operations of PG&E's existing systems and infrastructure, physical asset replacement initiatives for all computing and network systems, technology reliability initiatives and continuous improvement projects. IT owns the following two portfolios: baseline portfolio and technology reliability."[143]

The following tables summarize PG&E's request and DRA's recommendation for the MWCs within Information Technology's two portfolios.

Table 18-53
Information Technology Expenses for TY2014
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[144] (c)
MWC JV	$231,809	$261,603
Total	$231,809	$261,603

Table 18-54
Information Technology Capital Expenditures for 2012-2014
(In Thousands of Dollars)

Description	DRA Recommended			PG&E Proposed[145]		
	2012*	2013	2014	2012	2013	2014
MWC 2F	$163,444	$136,106	$161,258	$136,314	$142,696	$212,321
Total	$163,444	$136,106	$161,258	$136,314	$142,696	$212,321
* Includes MWCs that are not used in 2013 and 2014						

143 Ex. PG&E-7, p.1-22, lines 18-22.

144 Ex. PG&E-7, p. 8-72.

145 Ex. PG&E-7, p. 8-73.

PG&E's IT organization also administers business technology portfolios. The forecasted costs and proposed IT initiatives for business technology projects are presented in the individual line of business (LOB) testimony addressed in other DRA exhibits.

A. Expenses

PG&E's expense forecast is $261.6 million in 2014. This forecast is a 20.6 percent increase over 2011 recorded expenses of $217.0 million. Significant cost drivers reflected in PG&E's IT-owned work expense forecast include O&M costs increased due to escalating costs for maintenance contracts and licensing supporting the growth of assets and services, and increased headcount in the IT Baseline portfolio to support Continuous Improvement initiatives.[146]

1. MWC JV – Maintain Applications and Infrastructure

Beginning in 2011, MWC JV (Maintain Applications and Infrastructure) is the sole identifier for all IT expenses used for IT work. MWC JV includes costs for ongoing maintenance, operations and repair for PG&E's applications, systems and infrastructure.[147]

Table 18-55
2007-2012 Recorded Adjusted Data for Maintain IT Apps & Infa
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC JV*	$182,433	$181,143	$178,160	$191,544	$216,959	$216,031

Note: * The historical cost data consolidates MWCs that are no longer used by PG&E, but is included to show the historical costs incurred by the IT department. Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 8-1. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q04Supp01Atch01.

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146 Ex. PG&E- 7, p. 8-4

147 Ex. PG&E- 7, p. 8-63

As noted, IT owns the Baseline Portfolio and the Technology Reliability Portfolio. The Baseline Portfolio consists of the operational costs for the ongoing maintenance and operations of PG&E's technology systems and infrastructure. PG&E states that the Baseline costs are required to maintain PG&E's "status quo" operations.[148] The key drivers of the forecast expense increase are an increase in contract costs of approximately $39.4 million, increased labor costs of approximately $2.6 million, and increased cost of approximately $5.7 million in 2014 for 42 additional employees.[149]

A review of the Baseline cost since 2007 shows an upward trend in Baseline Portfolio cost. Cognizant of that, DRA recommends $221 million for PG&E's Baseline Portfolio in 2014. DRA determined this recommendation by trending out to 2014 PG&E's recorded Baseline Portfolio cost from 2008 to 2012. As DRA did not have a breakdown of recorded 2012 Baseline Portfolio cost, DRA used PG&E's 2012 budgeted Baseline Portfolio to total MWC JV and applied that percentage (96%) to 2012 recorded MWC JV cost of $216 million.

PG&E's Technology Reliability Portfolio forecast in this GRC includes the amounts for: (1) the regular upgrade and replacement of PG&E's IT assets, including assets recently added to PG&E's technology portfolio; (2) key enterprise-wide technology projects; and (3) technology initiatives driving continuous improvement in IT. PG&E forecasted Technology Reliability of $20.7 million in expense in 2014.[150]

The three functional areas that make up the Technology Reliability Portfolio are: lifecycle activities; technology reliability projects; and, continuous improvement initiatives. Lifecycle activities are the replacement and upgrade of PG&E's billion dollar plus IT asset base. Technology reliability projects are large-scale information technology projects originating within the IT organization. Continuous improvement

[148] Ex. PG&E-7, p. 8-34

[149] Ex. PG&E-7, p. 8-35

[150] Ex. PG&E-7, p. 8-38

initiatives include costs for initiatives specifically designed to improve IT services and reduce costs for IT services.[151]

DRA recommends $11 million for PG&E's Technology Reliability Portfolio. DRA derived its recommendation by using a five year average for PG&E's Lifecycle functional area, accepting PG&E's 2014 forecast for technology reliability project functional area, and rejecting PG&E's 2014 forecast for the continuous improvement functional area.

DRA rejects PG&E's 2014 forecast for the continuous improvement functional areas as it includes two projects that DRA opposes. The two projects are Record Management Archival project to design and implement a records management system built around PG&E's Documentum tool, and Service Management project that PG&E states will reduce the frequency and duration of IT systems and application outages and provide IT better visibility into issues in its environment.

DRA opposes the Record Management Archival project as it places the cart before the horse. As PG&E provides in its testimony "PG&E is in the process of building the Documentum tool. When the work forecast in the 2011 GRC is complete, Documentum will provide some of the capabilities that PG&E needs for its Records Management Archival program. However, it is not robust enough to provide all of the required functionality so PG&E will need to add additional tools and capabilities forecast in this rate case."[152] DRA opposes ratepayer funding until PG&E has demonstrated that the 2011 GRC funding it has received for the enterprise-wide data archival and records management program is operational.

DRA is also opposed to ratepayer funding for PG&E's Service Management project as continual improvement should be implicit in PG&E management activities. Ratepayers should not have to fund specific projects to gain improvements.

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[151] Ex. PG&E-7, p. 8-40

[152] Ex. PG&E-7, p. 8-58

As discussed in Exhibit DRA-13 (Customer Care Costs), DRA rejects PG&E's forecasted Smart Meter Opt-Out Program costs. DRA removed $270 thousand in associated cost from MWC JV from this section. Taken together, DRA recommends $231.8 million in MWC JV for 2014.

B. Capital Expenditures

PG&E's forecast of capital expenditures is $136.3 million in 2012, $142.7 million in 2013, $212.3 million in 2014, $212.4 million in 2015, and $196.7 million in 2016.[153]

PG&E states that significant cost drivers reflected in PG&E's IT-owned capital forecast include: significant lifecycle initiatives related to maintaining the reliability of PG&E's expanding IT asset base; implement a Disaster Recovery program to address IT risk mitigation; undertake a large-scale Telecommunications Network Enhancement program that is required to support grid modernization; undertake a significant Identity and Access Management initiative designed to reduce enterprise risk and to reduce inappropriate access to customer and employee information; undertake a large-scale Records Management Archival program that is essential for meeting the business' needs related to the availability of records that are critical elements of customer and employee safety, reliability, and regulatory compliance; and undertake a Service Management program in an effort to improve the reliability of IT operations.

DRA accepts PG&E's 2012 recorded capital expenditures of $163.4 million and incorporates that amount into its 2012 estimate. Therefore, DRA recommends capital expenditures of $163.4 million for 2012, $136.1 million for 2013, and $187.6 million for 2014.

[153] Ex. PG&E-7, p. 8-5

1. MWC 2F – Build Application and Infrastructure

Beginning in 2011, MWC 2F (Build Applications and Infrastructure) is the sole identifier for all IT capital expenditures used for IT work. MWC 2F includes costs to design, develop and enhance applications, systems and infrastructure technology solutions.[154] Previously, PG&E utilized MWCs 01, 02, 09, 2F, 77, 78, 80, and 81 to record its IT capital expenditures.

Table 18-56
2007-2012 Recorded Data for Build IT Apps & Infra
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012
MWC 2F*	$72,798	$68,897	$96,635	$114,948	$142,084	$163,444

Note: * The historical cost data consolidates MWCs that are no longer used by PG&E, but is included to show the historical costs incurred by the IT department. Source: 2007-2011 data from Ex. PG&E-7 Workpapers, WP 8-141. 2012 data from PG&E data response GRC2014-PH-1_DR_DRA_108-Q03Atch01.

PG&E forecasts capital expenditures of $105.7 million in 2014 for Lifecycle functional area, $83.3 million in 2014 in Technology Reliability functional area, and $23.4 million in 2014 for its Continuous Improvement functional area. In sum, PG&E is forecasting total capital expenditures in MWC 2F of $212.3 million in 2014. This is a 30% increase from PG&E's actual 2012 recorded capital cost.[155]

DRA does not oppose PG&E's Lifecycle forecast of $105.7 million for 2014. DRA reduced PG&E's Identify and Access Management project to 86% of forecast, and normalized PG&E's Telecommunication Network Enhancement project. The adjustment is based on PG&E's actual to 2011 GRC forecast of IT projects that used the concept cost estimating tool. This is discussed further below. DRA normalized PG&E's Telecommunication Network Enhancement project as PG&E states that the core and edge telecommunication networks, as currently constructed, will meet the

[154] Ex. PG&E-7, p. 8-63

[155] (212,321 – 163,444)/163,444 = 29.90%

projected demand and capacity for the next three years. After adjusting for these two projects, DRA's recommendation for the Technology Reliability functional area is $55.6 million for 2014. In the Continuous Improvement functional area, DRA rejects both projects and recommends $0 dollars in 2014. The two projects in the Continuous Improvement functional area are Records Management Archival and Service Management projects. As discussed in the related expense section above, DRA objects to ratepayer funding until PG&E has demonstrated that the 2011 GRC funding it has received for the enterprise-wide data archival and records management program is operational. There is no ratepayer benefit to be gained from funding additional tools and capabilities if the enterprise-wide archival is not operational. Additionally, DRA questions why PG&E continued the 2011 GRC funded archival project knowing that it did not offer all the functionality that PG&E required.

Also, DRA is opposed to ratepayer funding for PG&E's Service Management project as continual improvement should be implicit in all of PG&E's management activities. DRA is also opposed to PG&E's forecasted Smart Meter Opt-Out Program Cost as discussed in Exhibit DRA-13. In sum, DRA recommends $161.3 million for MWC 2F in 2014.

C. DRA's Cost Estimating Policy/Methodology for Business Technology IT Forecasts in PG&E's Lines of Business

PG&E uses its "Concept Cost Estimating Tool" to forecast costs for proposed IT application development projects. According to PG&E, a more detailed cost estimate is prepared when the project requirements, strategy and technology solutions are more fully developed, just before the commencement of the project.[156]

PG&E states that the concept estimating tool applies standard industry practices for IT project estimating. PG&E has been using the concept estimating tool since 2008 as the basis for generating the initial cost estimate for application development projects. The cost forecast for the Business Technology IT projects

[156] Ex. PG&E-7, p. 8-66

presented by the LOBs in PG&E's 2014 GRC were developed using the IT concept cost estimating tool. In the 2011 GRC, PG&E introduced the concept estimating tool as part of its process to estimate the costs of line of business technology application development projects. Since that time, the tool has remained largely the same; however, some adjustments and refinements have been made to the tool to improve its accuracy.[157]

PG&E states that the concept cost estimating tool is a computer based tool built in Excel and takes the form of a workbook containing several tabs. The tool includes a series of checklists and templates that the user completes to ensure all types of costs are included. The tool was developed by PG&E and is based on the standard industry approach for estimating IT application development costs early in the project lifecycle. To complete the checklist and generate the initial concept estimate, the IT project team works with the line of business to outline the business need for the IT project, understand the business requirements, outline the IT project benefits, and develop the timing for delivering the project. Using the information collected from the line of business, the IT project team completes the concept cost estimating checklist.[158]

Built into the concept cost estimating tool are a series of assumptions that the model uses, along with the information the user inputs into the tool, to calculate the various costs that roll up to the initial project forecast. The assumptions include percentage splits between capital and expense amounts, allocations of time across the different project stages (i.e., project development, testing, training, etc.) and burden amounts. Percentage splits between capital and expense are based on advice from PG&E's Capital Accounting organization for application development projects. Time allocations among the project stages are based on industry benchmark analytics. Percentages for burdens are based on information provided to IT by PG&E's Finance organization. Standard cost information and assumptions

[157] Ex. PG&E-7, p. 8-66

[158] Ex. PG&E-7, p. 8-66

built into the model, such as labor rates and burden rates, are regularly updated by the IT team responsible for the concept cost estimating tool. Updates and changes are tracked in the Usage and Version Control tab included with the model.[159]

Using the concept estimating tool requires the user to answer questions, complete checklists and fill-in templates. The checklists and templates are designed to ensure that the IT project team and line of business sponsors have identified and considered all of the required project components such as security needs, infrastructure requirements, O&M costs, and staffing needs.[160]

After completing the checklists and templates and generating a project forecast range, the IT project team evaluates the different program elements and determines the project cost forecast within the forecast range generated by the model. The IT team relies on its professional judgment and experience with application development projects in this evaluation, taking into consideration several key elements such as: PG&E's confidence level relative to undertaking the IT program; PG&E's history and familiarity with similar types of IT programs; the program complexity, including elements such as interfaces with other PG&E programs, number of user and user groups impacted, data exchanges outside of PG&E and changes to PG&E's infrastructure; and the certainty of the line of business requirements for the program at the time the forecast is developed. The result of the evaluation is the forecast project cost that is included in the GRC request.[161]

PG&E states that most of the IT application development project forecasts included in the GRC are generated by the concept cost estimating tool because most of the projects have not proceeded past the initial stages of the IT project

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[159] Ex. PG&E-7, p. 8-67

[160] Ex. PG&E-7, p. 8-67

[161] Ex. PG&E-7, p. 8-70

lifecycle as defined by the IT Methodology (discussed in Section C(2)(a) in PG&E-7).[162]

The Commission should not base PG&E's IT project revenue requirement on PG&E's concept cost estimating tool. As PG&E states in its testimony "the concept cost estimate is the first cost estimate generated for a project and it is necessarily presented as a range of costs, because business requirements and technology solutions are still in the initial planning stage."[163] Additionally, the funding requested for the IT projects in the GRC are not strictly based on the cost estimating tool. As PG&E provides in its testimony and data response, "the forecast amounts included in the GRC for IT application development projects are based on a combination of the output of the concept estimating tool and PG&E's best professional judgment."[164] Additionally, unlike the revenue requirement that PG&E will receive for the IT projects, there are no certainties that the IT projects that PG&E requests funding for in this GRC will actually be completed.

As such, DRA recommends that the Commission limit ratepayer funding of IT projects to 86% of PG&E's requested costs for those projects not otherwise opposed by DRA. DRA has determined that for all IT projects forecast by PG&E in its 2011 GRC which relied on the concept cost estimating tool, PG&E only spent 86% of its forecast based on the actual funds expended by PG&E. DRA believes it is appropriate to assume the same level of IT underspending in this GRC for proposed IT costs in which PG&E relied on the concept cost estimating tool.

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[162] Ex. PG&E-7, p. 8-70

[163] Ex. PG&E-7, p. 8-71

[164] PG&E data response _DR_DRA_239-Q01