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ALJ	:	Pulsifer
Witness	:	Godfrey

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

Electric Distribution Expenses
Part 2 of 2

San Francisco, California
May 3, 2013

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ELECTRIC DISTRIBUTION EXPENSES

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 Electric Distribution operation and maintenance (O&M) expenses for Test Year (TY) 2014.

Electric distribution O&M expenses are for work activities related to operation, supervision, and maintenance associated with the electric distribution system, load dispatching, station expenses, overhead and underground lines, poles, street lighting, customer installations, tree trimming, line transformers and miscellaneous work.

This exhibit specifically addresses PG&E's expense forecasts associated with Electric Mapping and Records Management, Vegetation Management and Distribution System Operations. All other Electric Distribution expense forecasts are addressed in Exhibit DRA-5.

PG&E's O&M activities and costs are grouped with similar types of work into a Major Work Category (MWC). PG&E's forecasts for MWC expenses are expressed in SAP nominal dollars. SAP dollars include certain labor-driven adders such as employee benefits and payroll taxes that are charged to separate Federal Energy Regulatory Commission (FERC) accounts. DRA's recommendations are made by MWC and SAP nominal dollars which are then translated into the appropriate FERC accounts through the Results of Operations (RO) model.

II. SUMMARY OF RECOMMENDATIONS

PG&E forecasted $276.103 million for Electric Mapping and Records Management, Vegetation Management, and Distribution Systems Operations. PG&E utilized various methods to forecast its Test Year expenses for its Electric Distribution O&M expenses. The methods utilized to forecast expenses for Electric Mapping and Records Management, Vegetation Management, and Distribution

Systems Operations are discussed in the following sections of this report. The corresponding DRA estimate for PG&E's Electric Mapping and Records Management, Vegetation Management, and Distribution Systems Operations is $217.990 million. DRA's estimate is $58.113 million less than PG&E's forecast.

PG&E proposes substantial increases in some of its MWCs and line items above 2011 recorded adjusted expenses. To make its recommendations, DRA utilized PG&E's 2011 recorded adjusted expenses and PG&E's historical expense levels, including its 2012 recorded adjusted expenses. DRA also reviewed and considered PG&E's historical Imputed Regulatory Values in its analysis and recommendations of each MWC. Table 6-1 compares DRA's and PG&E's TY 2014 forecasts. The following summarizes DRA's recommendations:

- That DRA's estimate of $4.416 million for PG&E's MWC GE – Electric Mapping and Records Management be adopted. DRA's estimate of $4.416 million is $26.701 million lower than PG&E's Test Year forecast of $31.117 million and is $1.052 million more than PG&E's 2011 recorded adjusted expenses of $3.364 million.
- That PG&E's request for additional ratepayer funding of $27.753 million, or 825% over 2011 recorded expense levels for projects to address PG&E's electric distribution mapping and recordkeeping deficiencies be denied (i.e., Field Asset Inventory, Converting Paper-Based Records to Electric Format, Updating Electric Records to Standard Format, and Records Quality Assurance Program). PG&E has failed to properly maintain and update its records and databases with authorized ratepayer funding and now extensive remedial work is needed. PG&E's proposed projects lack specific scope details and the associated estimates are not substantiated. PG&E's ratepayers have already funded the utility's electric distribution mapping and records management activities, and it is inappropriate to force ratepayers to pay twice for these normal, on-going, and routine mapping and records maintenance activities.
- Incremental funding that PG&E requires over DRA's estimate for MWC GE of $4.416 million and over historical embedded costs for PG&E's Electric Mapping and Records Management projects to address its mapping and recordkeeping deficiencies should be funding by PG&E's shareholders.
- That DRA's estimate of $164.223 million for PG&E's MWC HN – Vegetation Management be adopted. DRA's estimate of $164.223

million is $25.777 million lower than PG&E's Test Year forecast of $190.0 million and is $2.656 million more than PG&E's 2011 recorded adjusted expenses of $161.567 million.

- That PG&E's request for continuation of its Vegetation Management one-way balancing account be adopted.
- That DRA's estimate of $28.769 million for PG&E's MWC BA – Electric Distribution Operation be adopted. DRA's estimate of $28.769 million is $3.974 million lower than PG&E's Test Year forecast of $32.743 million.
- That DRA's estimate of $19.813 million for PG&E's MWC DD – Provide Field Service be adopted. DRA's estimate of $19.813 million is $0.515 million lower than PG&E's Test Year forecast of $20.328 million.
- That DRA's estimate of $0.769 million for PG&E's MWC HG – Electric Distribution Operations Technology be adopted. DRA's estimate of $0.769 million is $0.268 million lower than PG&E's Test Year forecast of $1.037 million.
- That PG&E's forecast of $0.877 million for MWC JV- Maintenance of Information Technology be denied in its entirety. PG&E's forecast includes software labor costs for the development and testing of its electronic wall mapping system for its Distribution Control Center (DCC) consolidation project. PG&E requested additional funding for software implementation costs associated with its DCC consolidation project and electric wall mapping system in its 2011 GRC. PG&E should reallocate and utilize the 2011 GRC authorized funding (that is still embedded) for its 2014 GRC proposed software labor costs for the development and testing of its electronic wall mapping system.

Table 6-1
Electric Distribution Expenses for TY2014
(In Thousands of Nominal Dollars)

Description (a)	PG&E Proposed[1] (b)	DRA Recommended (c)	Amount PG&E>DRA (d=b-c)	Percentage PG&E>DRA (e=d/c)
Electric Mapping and Records Management	$31,117	$4,416	$26,701	604.64%
Vegetation Management	$190,000	$164,223	$25,777	15.70%
Electric Distribution Operations	$54,986	$49,351	$5,635	11.42%
Total	$276,103	$217,990	$58,113	26.66%

[1] Ex. PG&E-4, Workpapers p. WP 4-1, WP 8-1, and WP 11-1.

III. GENERAL OVERVIEW

PG&E's Electric Mapping and Records Management Program creates new maps, records updates and maintains the electric system distribution maps. It also provides mapping information for planning new services, analyzing existing services, forecasting work and maintenance of PG&E's facilities. PG&E forecasts $31.117 million for Electric Mapping and Records Management expenses for the Test Year 2014 which is an increase of $27.753 million or 825% over 2011 recorded adjusted expenses of $3.364 million.[2]

PG&E's Vegetation Management Program patrols, inspects and maintains clearance on trees as required for regulatory compliance and removes vegetation (vegetation control) from around poles that have the potential to cause fires. PG&E also maintains or removes "hazard trees" or trees that it identifies as structurally unsound or that have the potential to fall on to power lines. PG&E forecasts $190.0 million for Vegetation Management expenses for the Test Year 2014, which is an increase of $28.433 million or 17.60% over 2011 recorded adjusted expenses of $161.567 million.[3] PG&E also requests continuation of its Vegetation Management one-way balancing account.[4]

PG&E's Distribution System Operations (DSO) monitors its electric system, manages outage restoration, directs system switching, and manages its electric-related field customer service work. PG&E forecasts $54.985 million for its DSO expenses for Test Year 2014.[5] PG&E's forecast also includes its proposal to

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[2] PG&E's 2014 forecast of $31.117 million is shown in Ex.PG&E-4, Table 4-3, p. 4-13.

[3] PG&E's 2014 forecast of $190.0 million is shown in Ex. PG&E-4, Table 8-1, p. 8-19.

[4] Ex. PG&E-4, p. 8-26.

[5] PG&E's 2014 forecast of $54.986 million is shown in Ex.PG&E-4 workpapers Table 11-1, p. WP 11-1.

consolidate thirteen existing Distribution Control Centers (DCC) into three new locations.[6]

A. Authorized vs. Recorded Expenses/Expenditures

In PG&E's 2011 GRC, the Commission ordered the utility to provide periodic compliance filings showing authorized[7] and recorded expenses and capital expenditures, by Major Work Category (MWC), for electric distribution, electric generation, and gas distribution.[8]

DRA provides the following historical comparison of authorized versus recorded O&M expenses for the MWCs addressed in this exhibit. The tables below also include a comparison between PG&E's 2012 forecasted and recorded O&M expenses.

Table 6-2
2007-2011 Authorized vs. Recorded Electric Mapping and Records Mgmt Expenses and PG&E's 2012 Forecasted vs. Recorded Expenses for Major Work Category GE
(In Thousands of Nominal Dollars)

MWC		Year					
		2007	2008	2009	2010	2011	2012
GE	Authorized	$10,585	$10,903	$11,221	$11,539	$7,114	--
	Recorded	$5,596	$5,341	$4,301	$3,477	$3,364	$4,302
	Forecasted	--	--	--	--	--	$4,244

Source: Authorized 2007-2010 data from Master Data Request, Chapter 24, Q.1. Authorized 2011 data from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. Recorded 2007-2011data from Exhibit (PG&E-4), Chapter 4, p. WP 4-1. Recorded 2012 data from PG&E's response to DRA data request DRA-PG&E-108-CKT. Forecasted 2012 data from Exhibit (PG&E-4), Chapter 4, p. WP 4-1.

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[6] Ex. PG&E-4, p. 11-2. PG&E plans to construct one central Distribution Control Center (DCC) and two regional facilities. DRA's capital witness will address DRA's forecast for PG&E's capital costs for its DCC consolidation project.

[7] PG&E's 2011 GRC was a Settlement Agreement and specific values were not provided for most MWCs. (PG&E's 2003 and 2007 GRCs were also Settlement Agreements). In DRA's report on PG&E's 2014 GRC, the amounts identified as PG&E's authorized/ Imputed amounts were calculated by PG&E. PG&E calculated Imputed Regulatory Values for each MWC that was not specified in the Settlement Agreement. See PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p.1-1.

[8] *Decision on PG&E Test Year 2011 General Rate Increase Request* (2011) D.11-05-018, 8, *mimeo*., Ordering Paragraph 42, at pp. 98-99.

Table 6-3
2007-2011 Authorized vs. Recorded Vegetation Management Expenses
and PG&E's 2012 Forecasted vs. Recorded Expenses
for Major Work Category HN
(In Thousands of Nominal Dollars)

MWC		Year					
		2007	2008	2009	2010	2011	2012
HN	Authorized	$150,000	$150,000	$150,000	$150,000	$161,500	--
	Recorded	$150,143	$150,226	$150,065	$150,203	$161,567	$161,474
	Forecasted	--	--	--	--	--	$161,500

Source: Authorized 2007-2010 data from Master Data Request, Chapter 24, Q.1. Authorized 2011 data from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. Recorded 2007-2011data from Exhibit (PG&E-4), Chapter 8, p. WP 8-1. Recorded 2012 data from PG&E's response to DRA data request DRA-PG&E-108-CKT. Forecasted 2012 data from Exhibit (PG&E-4), Chapter 8, p. WP 8-1.

Table 6-4
2007-2011 Authorized vs. Recorded Electric Distributions Operations Expenses
and PG&E's 2012 Forecasted vs. Recorded Expenses
for Major Work Categories BA, DD, HG, and JV
(In Thousands of Nominal Dollars)

MWC		Year					
		2007	2008	2009	2010	2011	2012
BA	Authorized	$31,587	$32,536	$33,486	$34,436	$36,023	--
	Recorded	$32,246	$33,884	$35,218	$35,163	$33,681	$33,401
	Forecasted	--	--	--	--	--	$35,536
DD	Authorized	$15,250	$15,709	$15,414	$14,734	--	--
	Recorded	$15,064	$15,061	$18,611	$19,409	$19,813	$19,264
	Forecasted	--	--	--	--	--	$17,228
HG	Authorized	--	--	--	--	$750	--
	Recorded	$683	$499	$448	$545	$749	$769
	Forecasted	--	--	--	--	--	$785
JV	Authorized	--	--	--	--	--	--
	Recorded	--	--	--	--	--	$521
	Forecasted	--	--	--	--	--	$495

Source: Authorized 2007-2010 data from Master Data Request, Chapter 24, Q.1. Authorized 2011 data from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. Recorded 2007-2011data from Exhibit (PG&E-4), Chapter 11, p. WP 11-1. Recorded 2012 data from PG&E's response to DRA data request DRA-PG&E-108-CKT. Forecasted 2012 data from Exhibit (PG&E-4), Chapter 11, p. WP 11-1.

IV. DISCUSSION / ANALYSIS OF ELECTRIC MAPPING AND RECORDS MANAGEMENT

PG&E's Electric Mapping and Records Management Program creates new maps, records updates and maintains the electric system distribution maps. It also provides mapping information for planning new services, analyzing existing services, forecasting work and maintenance of PG&E's facilities. Table 6-5 summarizes PG&E's request and DRA's recommendation for Electric Mapping and Records Management expenses recorded in MWC GE.

Table 6-5
Electric Distribution Expenses for TY2014
Electric Mapping and Records Management
(In Thousands of Dollars)

Description (a)	PG&E Proposed[9] (b)	DRA Recommended (c)
GE- Electric Mapping and Records Management	$31,117	$4,416

A. Overview of PG&E's Request

PG&E forecasts $31.117 million for Electric Mapping and Records Management expenses for the test year 2014 which is an increase of $27.753 million or 825% over 2011 recorded adjusted expenses of $3.364 million.[10] PG&E says it developed its forecast based on 2011 recorded expenditures, historical trends, and productivity improvements. PG&E developed its forecast for its Electric Distribution Mapping and Records Management initiatives using project specific estimating methods.[11] The corresponding DRA estimate for PG&E's Electric Mapping and Records Management expenses is $4.416 million, which is $26.701 million less than PG&E's forecast.

[9] Ex. PG&E-4, p. 4-1 citing PG&E WP 4-1, and WP 4-7.

[10] PG&E's 2014 forecast of $31.117 million is shown in Ex.PG&E-4, Table 4-3, p. 4-13.

[11] Ex. PG&E-4, p. 4-12.

Table 6-6 below shows PG&E's recorded adjusted expenses for MWC GE for 2007-2012 and its 2014 forecast.

Table 6-6
2007-2012 Recorded and 2014 Forecast Data for MWC GE
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012	2014
Base Mapping and Records Management	$5,133	$5,341	$4,408	$3,477	$3,364	$0	$4,688
Field Asset Inventory	$0	$0	$0	$0	$0	$0	$10,000
Convert Paper-Based Records to Electronic Format	$0	$0	$0	$0	$0	$0	$14,200
Update Electronic Records to Standard Format	$0	$0	$0	$0	$0	$0	$1,000
Records Quality Assurance Program	$0	$0	$0	$0	$0	$0	$411
Standard Variance	$463	$0	($107)	$0	$0	$0	$0
Escalation	$0	$0	$0)	$0	$0	$0	$818
Total	$5,596	$5,341	$4,301	$3,477	$3,364	$4,302	$31,117

Source: 2007-2011 and 2014 data from Exhibit (PG&E-4), Chapter 4, Workpapers P. WP 4-7. The 2012 data is from PG&E's response to DRA data request DRA-PG&E-108-CKT.

B. MWC GE – Electric Mapping and Records Management

PG&E records expenses for its Electric Mapping and Records Management in MWC GE. PG&E's forecast requests includes additional funding, over 2011 recorded levels, of $10.0 million for Field Asset Inventory,[12] $14.200 million for Converting Paper-Based Records to Electric Format,[13] $1.0 million for Updating Electric Records to Standard Format,[14] and $0.411 million for Records Quality

[12] PG&E's says its Field Asset Inventory project includes performing a detailed inventory of Electric Distribution System overhead and underground facilities to identify discrepancies between actual conditions and assets in the field.

[13] PG&E's says its Convert Paper-Based Records to Electronic Format project includes scanning and cataloging of job estimates and construction records (i.e., as-built drawings) maintained on paper located in local and regional office files.

[14] PG&E's says its Update Electronic Records to Standard Format project includes converting records already in electronic format to a Companywide database. PG&E already incurred costs when it originally converted its records from paper form to an electronic format and now it proposes to convert these records again (duplication of effort for additional costs) that are already in electronic

(continued on next page)

Assurance[15] Program.[16] PG&E's forecast includes contingency costs for its Field Asset Inventory Project of $3.240 million, its Electric Distribution As-Built Records Scanning Project of $3.670 million, its Distribution Substation Records Scanning Project of $324,000, and its Distribution Maintenance Records Scanning Project of $0.409 million.[17]

DRA forecasts $4.416 million for PG&E's Electric Mapping and Records Management expenses utilizing a five year average (2007-2011) as a basis. DRA's estimate is $26.701 million less than PG&E's forecast. DRA's forecast is $1.052 million more than PG&E's 2011 recorded adjusted expense level.

PG&E's request for additional funding of $27.753 million or 825% over 2011 recorded adjusted expenses of $3.364 million is not justified based on historical expense levels and should be denied by the Commission as excessive. PG&E's recorded adjusted expenses for MWC GE have been declining each year between 2007 and 2011. The five year average (2007-2011) is $4.416 million and the three year average (2010-2012) is $3.714 million. During PG&E's 2011 GRC, PG&E's expenses recorded in MWC GE showed a similar declining trend each year in expenses due in part to PG&E's implementation and completion of its Mapping and Improvement Project Phase 2 (MIP2) which was supposed to convert PG&E's older electronic and manual maps to an electronic mapping platform.[18]

(continued from previous page)
format to a "Companywide database". The excessive costs for duplicating work unnecessarily increases costs for ratepayers and its request should be denied.

[15] PG&E says its Quality Assurance program includes assessing and improving the quality of records maintained in its maps and databases.

[16] Ex.PG&E-4 p. 4-8 to 4-12 and workpapers p. WP 4-7.

[17] Regarding contingency costs, PG&E says it "…has not yet developed project scopes, costs estimates and competitive solicitations... In light of the project scope and status, PG&E deemed it appropriate to include contingency of approximately 15% in the overall project estimate (DRA-PG&E-085-TLG Q.8-a).

[18] PG&E's response to DRA-PG&E-085-TLG, Q 6-d.

In PG&E's 2011 GRC, PG&E requested additional funding of $1.773 million over its 2008 recorded adjusted expenses of $5.341 million for its Electric Mapping expenses.[19] PG&E's 2011 recorded adjusted expenses for MWC GE of $3.364 million is $3.750 million less than PG&E's 2011 GRC Imputed amount of $7.114 million as shown in Table 6-7 below.[20] This is a 111.47% percentage decrease from the Imputed amount. PG&E's 2011 recorded adjusted expenses of $3.364 million is $1.380 million less than PG&E's 2011 GRC budgeted amount of $4.744 million or a decrease of 41.02%.[21] PG&E states the decrease in its 2011 GRC proposed expense level is "primarily due to lower electric mapping labor costs than originally forecasted and a reduction in low-priority mapping improvement projects".[22]

PG&E's recorded adjusted expenses for 2007-2011 for MWC GE have been less than its Imputed amount each year. This demonstrates that PG&E has received sufficient authorized funding during the historical period (2007-2011) to address projects similar to what it is proposing in its 2014 GRC associated with its mapping and records corrections, upgrades, consolidations and paper record conversions to electronic format. Table 6-7 below shows PG&E's MWC GE historical comparison of Imputed versus recorded O&M expenses, its 2012 forecasted and recorded expenses, and its 2014 forecasts.

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[19] PG&E's 2011 GRC forecast for its Electric Mapping was included in its Exhibit (PG&E-3) Table 16-2, p. 16-10.

[20] Imputed 2011 data from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. PG&E provided its 2011 GRC authorized amount of $7.114 million in response to DRA-PG&E-085-TLG, Q.1-a.

[21] PG&E's 2011 budgeted amount of $4.744 million is from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018.

[22] PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, pp. 2-14.

Table 6-7
PG&E's 2007-2011 Authorized vs. Recorded Electric Mapping and Records Mgmt Exp
2012 Forecasted vs. Recorded Expenses and 2014 Forecasts for Major Work Category GE
(In Thousands of Nominal Dollars)

		2007	2008	2009	2010	2011	2012	2014
GE	Authorized	$10,585	$10,903	$11,221	$11,539	$7,114	--	--
	Recorded	$5,596	$5,341	$4,301	$3,477	$3,364	$4,302	--
	Forecasted	--	--	--	--	--	$4,244	$31,117

Source: Authorized 2007-2010 data from Master Data Request, Chapter 24, Q.1. Authorized 2011 data from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. Recorded 2007-2011data from Exhibit PG&E-4, Chapter 4, p. WP 4-1. Recorded 2012 data from PG&E's response to DRA data request DRA-PG&E-108-CKT. Forecasted 2012 data from Exhibit PG&E-4, Chapter 4, p. WP 4-1.

Based on the analysis above, DRA opposes additional ratepayer funding for PG&E's projects for its Field Asset Inventory, Converting Paper-Based Records to Electric Format, Updating Electric Records to Standard Format and its Records Quality Assurance Program to address PG&E's electric distribution mapping and recordkeeping deficiencies. DRA also opposes PG&E's proposed contingency costs associated with the above projects.[23]

PG&E's proposed Test Year projects also lack specific scope details and the associated Test Year estimates are not substantiated and should be denied. According to PG&E, for the Field Asset Inventory Project and three distribution records scanning projects:

> *PG&E has not yet developed project scopes, costs estimates and competitive solicitations*. As described in testimony, PG&E proposes to conduct pilots in 2013 to support preparation of the detailed project plans and cost estimates. In light of the project scope and status, PG&E deemed it appropriate to *include contingency of approximately 15%* in the overall project estimate.[24]

[23] While it is common to see contingency costs added to proposed capital expenditures, DRA cannot recall an instance of contingency costs being added to O&M expenses.

[24] DRA-PG&E-085-TLG Q.8-a (emphasis added).

PG&E's ratepayers have already funded the utility's electric distribution mapping and records management activities, database enhancements, upgrades and consolidations,[25] mapping and records conversions, etc. It is inappropriate to force ratepayers to pay twice for these normal, on-going, and routine mapping and records maintenance activities that already have costs embedded in historical expenses that can be reallocated and utilized for PG&E's proposed projects.

PG&E has failed to properly maintain and update its records and databases with authorized ratepayer funding and now extensive remedial work is needed, leading to this request for an increase of 825% over 2011 recorded adjusted expenses of $3.364 million. PG&E states the main drivers of its 825% increase "…are initiatives PG&E plans to pursue that will improve the accuracy, completeness, uniformity, and accessibility of its electric distribution system records. Some of these initiatives are in response to the Commission-appointed Independent Review Panel (IRP) report issued in June 2011 and ongoing Companywide records improvement efforts".[26] DRA requested additional information on PG&E's records management proposal.

[25] During PG&E's 2011 GRC, DRA noted that in 2006, PG&E's MIP2 was later incorporated into its Business Transformation (BT) GIS Project which was closed in December 2007 and all spending for the project stopped. In 2008 PG&E re-initiated the GIS project and renamed it AM/FM. (PG&E's 2011 GRC Ex. (PG&E-3) pp. 16-7 to 16-10). In regards to costs incurred for PG&E's Business Transformation (BT) GIS Project that was closed in December 2007, PG&E states "To the extent possible, PG&E will leverage the software application development that was completed under the BT GIS initiative. It is unclear at this time whether and how much work from the Land Base, GIS Software, and/or Data Conversion phases can be leveraged, but PG&E anticipates being able to leverage some of this work". (PG&E's 2011 GRC Ex. (PG&E-3) p. 16-10). PG&E suspended the AM/FM project after the San Bruno explosion in September 2010 to "assess the effectiveness of the project" in order to achieve accurate, verifiable, and traceable asset information. The AM/FM project closed in September 2011 and was re-launched as separate GIS/AM projects for Electric Distribution, Gas Distribution, Electric Transmission and Gas Transmission.

[26] Ex. PG&E-4, p. 4-1, lines 21-27.

DRA asked:

> On page 4-6 PG&E states 'Many PG&E departments, customers, communities, other utilities, and government agencies rely on the accuracy of PG&E's maps and records'. With this said, on page 4-8 in its testimony regarding its Field Asset Inventory, PG&E states 'for a variety of reasons, these records may not contain all of the necessary information or may not fully reflect the actual asset conditions'. 1) Provide the documentation that explains in detail all the 'variety of reasons' PG&E is referring to in this statement which caused its records to lack all the necessary asset information. 2) Provide the documentation that explains in detail the reason why PG&E's records do not reflect the actual asset conditions and describe the documented maintenance problems or deferred maintenance projects PG&E encountered due to its failure to properly reflect the actual asset conditions in its records.[27]

PG&E's response:

> PG&E did not conduct a comprehensive 'study' to document "the variety of reasons" why PG&E's records may not contain all of the necessary information or may not fully reflect asset conditions in the referenced testimony and does not have any 'documentation' per se. However, *PG&E is aware that some records contained in its Centralized Electric Distribution System Analysis (CEDSA) database related to the manufacturer and date installed for certain pieces of equipment such as line switches or distribution transformers are missing or were given default values in the database. PG&E believes this information is missing because PG&E decided not to collect this information in the 1970s and 1980s when the CEDSA database and its predecessor databases were created. PG&E also believes that some of this information was not collected and reported by its crews at the time the equipment was installed so it could not be easily recorded in the database.* The fact that some information is lacking in the CEDSA database does not mean that PG&E experienced maintenance problems or deferred maintenance… (emphasis added)

[27] DRA-PG&E-085-TLG, Q.7-b.

DRA also asked:

> PG&E believes that the IRP recommendations made for its gas transmission records management activities 'are also relevant to PG&E's Electric Distribution Mapping and Records Management practices'. Provide the documentation that explains in detail and demonstrates if PG&E believes it has received authorized funding in past GRCs (2003, 2007, 2011) to ensure that its Electric and Gas mapping records were maintained in an accurate, complete, and easily accessible manner.[28]

PG&E's response:

> PG&E did receive funds to manage and maintain its Electric and Gas mapping records in an accurate, complete, and accessible manner. However, as noted in a) above, PG&E's reference to the relevance of the IRP recommendations to the specific improvement initiatives proposed for its Electric Distribution records is that PG&E should examine its electric distribution records management practices carefully and make improvements to reflect industry practices by creating a multi-year plan to implement electronic information-based improvements.

DRA agrees that PG&E "should examine its electric distribution records management practices carefully and make improvements to reflect industry practices". However, this should be done at its current funding levels (reallocating and utilizing embedded historical costs) or at its shareholders expense. Based on PG&E's responses, its recordkeeping practices have been deficient since the 1970s. PG&E has had approximately forty years to correct, verify and compare asset records and asset field inventory,[29] completely update records missing critical information, streamline processes for easy retrieval of records, convert all paper-based records to electronic formats, and migrate/consolidate all necessary mapping

[28] DRA-PG&E-085-TLG, Q.7-c.

[29] PG&E's Field Asset Inventory project with a forecast of $10.0 million includes the detailed search and inventory of its overhead and underground facilities to identify discrepancies between asset records and assets in the field.

record databases. Since 2007, PG&E has spent considerably less than Commission authorized amounts for this activity as set forth in Table 6-7. However, PG&E now proposes in its 2014 GRC, to get its Electric Distribution mapping and records management practices in proper order. PG&E proposes to perform a detailed inventory of its Electric Distribution System overhead and underground facilities to identify and correct all the discrepancies between actual conditions and assets in the field and its asset records on its maps and in databases.

PG&E's as-built drawings (installation records) and maintenance records must be accurate, reliable, accessible, and preserved. PG&E has been authorized funding over the last 10 years to ensure that its critical records were maintained and preserved, by converting its paper-based maps and records to electronic format.. PG&E's management decided not to use these authorized funds to convert its paper-based, historical, as-built drawings and maintenance records to electronic format. PG&E ratepayers have already funded this activity and should not be charged twice. PG&E's shareholders can fund the incremental cost of converting as-built drawings and maintenance records.[30]

PG&E states the following regarding its asset record discrepancies and its asset management practices utilizing a risk-based approach:

> Among others, system safety was a key risk identified for Electric Operations. One of the fundamental aspects of addressing system safety risk with this type of approach is to have accurate information about the vintage and manufacturer of operating equipment such as switches, circuit breakers, line reclosers, line sectionalizers, interrupters, voltage regulators and capacitors. As noted in response to Question 7.b of this data request (DRA_085), PG&E did not capture all of this information in its CEDSA database for equipment already in service when this database was implemented in the 1970s and 1980s[31]

[30] DRA-PG&E-085-TLG Q. 6 a-f.

[31] DRA-PG&E-085-TLG, Q.11-a2.

PG&E's request for MWC GE- Mapping and Records Management is very similar to PG&E's proposal in its Pipeline Safety Enhancement Plan (PSEP) regarding its Pipeline Records Integration Program (PRIP).[32] In the PSEP proceeding, PG&E requested incremental ratepayer funding for collecting, reviewing organizing and verifying critical records associated with its installed gas pipeline segments and for additional funding to upgrade and consolidate its multiple existing Information Technology systems (SAP and its Geographic Information System (GIS)). The Commission rejected PG&E's request for ratepayer funding for its PRIP proposal. The Commission stated the following:

> *As set forth below, we find that PG&E has not justified including the costs of its gas system records search and organization projects in revenue requirement. PG&E became responsible for its natural gas transmission system the day it installed facilities and equipment for the system. That responsibility includes creating and maintaining records of the location and engineering details of system components. Over the years, PG&E has sought and obtained ratepayer funding for its record-keeping functions. PG&E has imprudently managed its gas system records such that extensive remedial work is now needed to correct past deficiencies.* Having created the need for this remedial work by its imprudent historic document management practices, PG&E has not shown by a preponderance of the evidence that the costs of the current document search and organization projects can be included in revenue requirement and that the resulting rates will be just and reasonable.[33]

What the Commission stated regarding PG&E's natural gas transmission system, is also applicable to its electric distribution system in that PG&E became responsible for its electric distribution system the day it installed facilities and equipment for the system. PG&E's "responsibility includes creating and maintaining records of the location and engineering details of system components." PG&E has

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[32] *See Decision Mandating Pipeline Safety Implementation Plan, Disallowing Costs, Allocating Risk of Inefficient Construction Management to Shareholders, and Requiring Ongoing Improvement in Safety Engineering,* (2012) D.12-12-030 , mimeo, p. 18, Section 2.2: PG&E's Pipeline Records Integration Program...

[33] D.12-12-030, p. 87 (emphasis added).

not effectively utilized authorized funding to ensure that its electric distribution mapping and records management systems were properly corrected, updated and maintained; if the records had been properly maintained, PG&E would not be requesting an increase of 825% in the Test Year. It is unreasonable to force PG&E ratepayers to pay again to address PG&E's deficient records management.[34]

DRA recommends that the Commission apply the policy adopted in D.12-12-030, and deny PG&E's request for incremental ratepayer funding of 825% over historical expense levels to address its electric distribution mapping and records deficiencies. The activities included in PG&E's Electric Mapping and Records Management proposal are the same activities associated with prudent Electric Distribution recordkeeping and should be part of the normal, routine and on-going maintenance activities that are already funded by ratepayers.

PG&E also fails to demonstrate or incorporate into its forecast any calculated savings and benefits and associated efficiency gains in dollars for its proposed mapping and records projects. Regarding ratepayer benefits and savings, on proposed projects, the Commission has stated the following**:**

> The descriptions of the potential benefits of the projects provide general information but there is not sufficient information to determine whether the costs are justified in either the short or long term. With this type of analysis and showing it is possible to explicitly include associated costs in rates but it is not possible to explicitly reflect any of the associated benefits or savings, whatever they may ultimately be, in rates for this rate case cycle. This imbalance is troubling. In general, it is our obligation to consider both the costs and, if applicable, the benefits/savings of utility proposals. If the benefits/savings are ultimately small when compared to costs, the proposal should probably not be implemented or included in rates. If the benefits/savings are substantial, it would be reasonable to include both the costs and benefits/savings in determining rates. For the advanced technology programs/projects, the lack of information regarding benefits/savings

[34] PG&E proposes to utilize 2011 GRC authorized funding to conduct the first year of work for its Field Asset Inventory project in 2013 and has already conducted targeted specific asset inventories using 2011 GRC authorized funding (DRA-PG&E-085-TLG Q.11-b).

> precludes us from making such determinations. In this decision, we are authorizing significant increases in T&D O&M and capital expenditures. How the potential benefits of the advanced technology programs/projects relate to SCE's proposals for increased spending is not clear. Whether the advanced technology spending results in the modification of any future spending related to T&D costs has not been shown.[35]

PG&E's forecast method ignores historical embedded costs (i.e., those that are already in rates) associated with the upgrades, revisions, enhancements, database consolidations and on-going operation and maintenance of its existing database systems which provides the foundational infrastructure that its proposed Electric Distribution Geographic Information System/Asset Management (ED GIS/AM) Project relies upon. PG&E states "The ED GIS/AM project is a continuation of and enhanced approach to the "Automated Mapping and Facilities Management (AM/FM)" described in PG&E's 2011 GRC".[36] PG&E's forecasting method also fails to show the relationship between and the incorporation of embedded costs in its forecast. PG&E's forecast does not consider the previously authorized funding of these types of activities. DRA requested additional information on PG&E's proposal and for information on embedded historical cost for similar activities.

[35] D.06-05-016 page 64.

[36] Ex. PG&E-4, pp. 2-25 and 2-26. PG&E suspended the AM/FM project after the San Bruno explosion in September 2010 to "assess the effectiveness of the project" in order to achieve accurate, verifiable, and traceable asset information. The AM/FM project closed in September 2011 and was re-launched as separate GIS/AM projects for Electric Distribution, Gas Distribution, Electric Transmission and Gas Transmission.

DRA asked:

> Provide the documentation that explains in detail if PG&E requested and was authorized funding in its 2003, 2007, and 2011 General Rate Cases (GRC) to specifically address its GIS, SAP, and other database systems that were directly related to the maintenance and operation of its electric and gas mapping and records management activities.[37]

PG&E's response was to refer DRA to another response in the same data request. That question and answer were the following:

DRA asked:

> If PG&E did request and receive funding in its 2003, 2007, and 2011 GRCs, provide the requested, authorized, and recorded expenses, and all the associated projects related to the GIS, SAP, and other database system projects associated with PG&E's maintenance of its electric and gas mapping and records/asset management.[38]

PG&E's response:

> PG&E did forecast and recorded expenses in MWC GE in previous general rate cases. However, the forecast and recorded expenses for projects related to the GIS, SAP and other database system projects are accounted for in MWC JV and not MWC GE.

DRA asked:

> Provide the documentation that explains in detail and demonstrates specifically how PG&E incorporated historical embedded costs associated with completed, eliminated, or closed GIS, SAP, and electric and gas mapping and records/asset management projects in its test year forecast to justify an increase of $27.753 million or 825% over 2011 recorded adjusted expenses.[39]

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[37] DRA-PG&E-085-TLG, Q.1-c.

[38] DRA-PG&E-085-TLG, Q.1-d.

[39] DRA-PG&E-085-TLG, Q.1-e.

PG&E's response:

> As part of the forecasting process, PG&E reviewed the 2011 base year recorded costs for the electric mapping program and determined new work required to develop the 2014 forecast. As discussed in testimony, Exhibit (PG&E-4), page 12, there are two new projects driving the majority of the increase in MWC GE: the Field Asset Inventory project and the Convert Paper Based Records to Electronic Format project. These two projects account for $24.2 million of the $27.8 million increase. The remaining difference includes increased costs for incremental work reviewing maps in preparation for GIS, the addition of two quality assurance employees, converting records to new standard formats and cost escalation. PG&E's expense walk for MWC GE (Exhibit (PG&E-4), Chapter 4 WP 4-6) shows the individual components that make up the difference between the base year and test year expense amounts.

PG&E's responses above are insufficient and incomplete and do not justify PG&E's request for additional ratepayer funding. PG&E's responses do not demonstrate the incorporation of historical embedded costs in its forecast estimate. Although PG&E admits it "has implemented a number of complementary mapping and asset records management technology projects over the past 10 years",[40] its forecast does not incorporate historical costs. PG&E's failure to account for the embedded costs included in its historical expenses, which are directly related to existing electronic information management systems, produces an excessive cost forecast which is unjustly burdensome to ratepayers. The Commission should deny PG&E's request.

In examining the relationship between embedded historical costs and forecasted expenses for the same or similar activities in an earlier GRC decision, the Commission stated:

> SCE's forecast also includes a $4.812 million (constant 2006$) increase for insulator replacement as part of its Transmission Life Extension Program. SCE claims that the increase represents the cost

[40] DRA-PG&E-085-TLG, Q.6.

> of materials and the use of contract crews to supplement SCE's crews for insulator and hardware replacements. DRA claims historical expenses have embedded costs for insulator replacements. According to SCE, some of the circuits it will be replacing are over 90 years old and many of the insulators on its system have exceeded their life expectancies. *While these types of programs may be a cost-effective way to maintain the integrity of the system and slow the deterioration of capital assets, SCE has not sufficiently addressed the relationship of these programs to costs embedded in historical data.* Accordingly, SCE's request for $4.812 million to increase its insulator replacement as part of its Life Extension Program is denied.[41]

DRA recommends that the Commission continue its policy and deny PG&E's request for incremental ratepayer funding of 825% over historical expense levels to address its electric distribution mapping and records deficiencies. The Commission should reject increased ratepayer funding for activities that already have costs embedded in PG&E's historical expenses and have been previously authorized. PG&E had approximately forty years to correct its Electric Distribution mapping and records deficiencies. DRA's estimate of $4.416 million utilizing a five year average (2007-2011) is a reasonable method to establish expense levels for the Test Year for PG&E's MWC GE - Electric Mapping and Records Management Program. PG&E had 2012 and 2013 to address its mapping and records management projects before the Test Year and no additional ratepayer funding over DRA's Test Year estimate of $4.416 million is justified. If there are any incremental expenses incurred over authorized funding levels, those costs should be at PG&E's shareholders expense.

[41] D.09-03-025, p. 72 (emphasis added).

V. DISCUSSION / ANALYSIS OF VEGETATION MANAGEMENT

PG&E's Vegetation Management Program patrols, inspects and maintains clearance on trees as required for regulatory compliance and removes vegetation (vegetation control) from around poles that have the potential to cause fires. PG&E maintains or removes "hazard trees" or trees that it identifies as structurally unsound or that have the potential to fall on to power lines.[42] Table 6-8 summarizes PG&E's request and DRA's recommendation for Vegetation Management expenses recorded in MWC HN.

Table 6-8
Electric Distribution Expenses for TY2014
Vegetation Management
(In Thousands of Dollars)

Description (a)	PG&E Proposed[43] (b)	DRA Recommended (c)
HN Vegetation Management	$190,000	$164,223

A. Overview of PG&E's Request

PG&E forecasts $190.0 million for Vegetation Management expenses for the Test Year 2014, which is an increase of $28.433 million or 17.60% over 2011 recorded adjusted expenses of $161.567 million.[44] PG&E also requests continuation of its Vegetation Management one-way balancing account.[45] PG&E developed its forecast based on planned units of work and then multiplied the units of work by a calculated unit cost.[46] PG&E also utilized an Excel formula "GROWTH"

[42] Ex. PG&E-4, p. 8-2.

[43] Ex. PG&E-4, p. 8-1.

[44] PG&E's 2014 forecast of $190.0 million is shown in Ex. PG&E-4, Table 8-1, p. 8-19.

[45] Ex. PG&E-4, p. 8-26.

[46] Ex. PG&E-4, p. 8-27.

non-linear estimation methodology to determine its forecasted unit cost and its planned units of work for the Test Year.[47]

The corresponding DRA estimate for PG&E's Vegetation Management expenses is $164.223 million, which is $25.777million less than PG&E's forecast. DRA's Test Year estimate of $164.223 million is $2.656 million more than PG&E's 2011 recorded adjusted expenses. DRA does not oppose PG&E's request for continuation of its Vegetation Management one-way balancing account.

Table 6-9 below shows PG&E's recorded adjusted expenses for the line items included in MWC HN for 2007-20012 and its 2014 forecast and DRA's Estimate.

Table 6-9
2007-2012 Recorded and 2014 Forecast Data for MWC HN
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012[48]	2014	DRA
Routine Tree Work	$139,926	$139,976	$140,397	$140,110	$151,602	$0	$156,000	$151,602
Vegetation Control	$8,788	$8,906	$8,111	$8,594	$8,392	$0	$8,700	$8,700
Quality Assurance	$1,096	$953	$966	$849	$884	$0	$1,200	$1,200
Public Education	$311	$346	$328	$278	$375	$0	$360	$360
Environmental Compliance	$22	$46	$263	$373	$315	$0	$12,591	$2,361
Fire Risk Reduction	$0	$0	$0	$0	$0	$0	$11,113	$0
Forecasting Adjustment							$36	$0
Total	$150,143	$150,227	$150,065	$150,204	$161,568	$161,474	$190,000	$164,223

Source: 2007-2011 data from Exhibit (PG&E-4), Chapter 8, Workpapers p. WP 8-6. The 2012 data is from PG&E's response to DRA data request DRA-PG&E-108-CKT. Note that PG&E only provided 2012 recorded expenses by MWC total and did not provide any expense totals broken down by the individual line items that are included in the MWCs.

[47] PG&E used the Excel GROWTH function as a basis to calculate its Routine Tree Work expense forecast of $156.0 million included in its forecast of $190.0 million for MWC HN (PG&E's response to DRA data request DRA-PG&E-083-TLG, Q.1).

[48] In PG&E's response to DRA-PG&E-108-CKT, PG&E provided 2012 recorded expenses by MWC and did not provide its expenses broken down by the individual line items that are included in the MWCs.

B. MWC HN – Tree Trimming

PG&E records expenses for its Vegetation Management Program in MWC HN. As shown in Table 6-9 above, PG&E's expenses were relatively stable between 2007 and 2010, averaging $150.160 million for the four year period. PG&E's expenses increased by $11.354 million between 2010 and 2011. PG&E's expenses have been flat for the last two years (2011 and 2012) with an average for the two year period of $161.521 million.

PG&E's MWC HN includes individual forecasts for six line items/subaccounts. PG&E forecasted $156.0 million for Routine Tree Work, $8.7 million for Vegetation Control, $1.2 million for Quality Assurance, $0.360 million for Public Education, $12.591 million for Environmental Compliance and $11.113 million for Fire Risk Reduction.[49]

1. Tree-Trimming Balancing Account

PG&E also requests continuation of its Vegetation Management one-way balancing account. DRA does not oppose PG&E's request for continuation of its Vegetation Management one-way balancing account.

2. Public Education Program, Vegetation Control, and Quality Assurance

DRA does not oppose PG&E's forecast of $0.360 million for its Public Education program, $8.7 million for its Vegetation Control program, and $1.2 million for its Quality Assurance program. DRA reviewed PG&E's testimony, workpapers, data request responses and historical expense levels for these line items and notes that PG&E's forecast is comparable with its 2011 recorded adjusted expenses and appears to be a reasonable Test Year estimates. As discussed below, DRA does take issue with PG&E's forecasts for Routine Tree Work, Environmental Compliance, and Fire Risk Reduction.

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[49] Ex.PG&E-4, workpapers Table 8-6 p. WP 8-6.

3. Routine Tree Work

PG&E forecasted $156.0 million for its Routine Tree Work expenses, utilizing an Excel GROWTH formula as a basis to forecast its Test Year expenses.[50] PG&E's forecast is an increase of $4.398 million over its 2011 recorded adjusted expenses of $151.602 million. PG&E's request for additional funding for its Routine Tree Work expenses is not justified when compared to historical levels. DRA utilized PG&E's 2011 recorded adjusted expense level as a basis for its forecast of $151.602 million for PG&E's Routine Tree Work. DRA's estimate is $4.398 million less than PG&E's forecast.

PG&E's expenses were relatively stable between 2007 and 2010 with an average for the four year period of $140.102 million. PG&E's 2011 recorded adjusted expenses for Routine Tree Work increased by $11.492 million between 2010 and 2011 from $140.110 million in 2010 to $151.602 million in 2011. PG&E's increase between 2010 and 2011 is due primarily to PG&E's expanded fire risk reduction work and tree trimming reliability projects.[51] The five year average (2007-2011) for PG&E's Routine Tree Work is $142.402 million and the three year average (2009-2011) is 144.036 million. PG&E's 2011 recorded adjusted expenses for this line item is the highest annual recorded figure for the five year period (2007-2011), and is more than its three, four, and five year averages. PG&E's 2011 recorded adjusted expenses is a reasonable expense level for the Test Year.

[50] E. PG&E-4, p. 8-20.

[51] PG&E's response to DRA's data request DRA-PG&E-083-TLG, Q.1.

PG&E's methodology forecasts a $4.398 million increase over 2011 recorded adjusted expenses[52] (using the Excel GROWTH formula) for its Routine Tree Work, but does not appear to have any other correlation to PG&E's historical expense levels. PG&E utilized the Excel GROWTH function as a basis to forecast its 2011 GRC expenses of $152.500 million[53] for its Routine Tree Work.[54] PG&E's 2011 recorded adjusted expenses of $151.602 million are $0.898 million less than PG&E's 2011 GRC forecast of $152.5 million.

PG&E utilized the Excel GROWTH function as a basis to forecast its 2010 expenses in its 2011 GRC of $147.6 million for its Routine Tree Work. PG&E's 2010 recorded adjusted expenses of $140.110 million are $7.490 million less than PG&E's 2010 forecast of $147.6 million. PG&E's 2010 recorded adjusted expenses of $140.110 million are comparable to the historical expenses recorded for 2007 through 2009.[55] It appears that PG&E's forecasting method routinely overestimates Routine Tree Work expenses.

PG&E states that its contractor costs are overwhelmingly the largest single component of its Vegetation Management program and that these costs are increasing. PG&E states further that its vegetation contractors' health costs have increased, its liability insurance premiums are increasing, its worker compensation

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[52] PG&E states that "a large component of PG&E's unit prices are labor costs" and that the "most recently negotiated union labor agreement had a 3 percent annual increase from 2011-2012…" (Ex. PG&E-4 p. 8-19). In a response to a DRA data request PG&E states "The most recently negotiated union labor agreement had a 2 percent annual increase from 2011-2012". PG&E will issue an errata to correct the annual percent increase (DRA-PG&E-083-TLG, Q.1-g).

[53] PG&E's response to DRA's data request DRA-PG&E-083-TLG Q.1.

[54] PG&E's line item for Routine Tree Work in its 2014 GRC, was called Routine Tree Trimming and Removal in PG&E's 2011 GRC.

[55] Ex.PG&E-4, workpapers Table 8-6, p. WP 8-6.

costs are increasing, and that costs are increasing due to decreased productivity due to increased travel time between fewer work locations.[56]

PG&E was not able to provide documentation that demonstrated that specific costs associated with its contractors, which PG&E identified in its testimony, were increasing.[57] PG&E was not able to provide any detailed breakdown of the increasing costs it identified in its testimony so that those costs could be compared to its current funding level for its Routine Tree Work to show that its current funding level of $151.602 million was insufficient. PG&E stated that its "contractors express to PG&E the factors that are causing cost increases but individual costs for health insurance, liability premiums, and workers compensation are not tracked by PG&E".[58] Since PG&E has not tracked costs that can be verified, DRA cannot assume that specific costs are increasing over 2011 recorded adjusted expenses and require more ratepayer funding in the Test Year. PG&E did not provide information pertaining to the manner in which it requests bids for projects which assures that PG&E is getting the lowest competitive price from contractors.

In its TY 2011 GRC regarding increasing contractor costs, PG&E stated the following:

> The 2011 forecast for routine tree trimming and removal of $152.5 million results from the Growth calculation, using annual expense and annual units worked for 2004 through 2009. PG&E did not perform separate, detailed calculations related to "increased labor, contractor insurance, environmental costs and decreased productivity due to increased travel time between fewer work locations" to calculate the increase. Such calculations were unnecessary to develop the forecast.[59]

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[56] Ex. PG&E-4, p. 8-19.

[57] PG&E's response to DRA-PG&E-083-TLG Q.1-g.

[58] PG&E's response to DRA-PG&E-083-TLG Q.1-g.

[59] PG&E's response to DRA-092-TLG Q.3-e.

PG&E's 2011 recorded adjusted expenses for this line item is the highest recorded for the five year period (2007-2011). PG&E has embedded historical costs that can be reallocated and utilized to perform its Routine Tree Work projects. PG&E has not shown that additional funding is required over 2011 recorded adjusted expenses of $151.602 million.

4. Fire Risk Reduction

PG&E forecasts $11.113 million for its Fire Risk Reduction expenses.[60] PG&E states that the additional funding is for its inspectors to conduct "a more detailed evaluation of every tree that has the potential to fall into PG&E's lines in selected highest fire risk locations…"[61] PG&E's request for additional funding of $11.113 million is not justified based on historical expense levels. PG&E has not provided sufficient support to burden ratepayers with additional funding of $11.113 million.

PG&E's Fire Risk Reduction line item does not show any recorded costs for 2007-2011. It is unclear why there were no recorded costs in this area because in PG&E's 2011 GRC, PG&E requested additional funding of $13.0 million for its Fire Risk Reduction program. DRA took issue with PG&E's 2011 GRC request and recommended additional funding of $4.3 million for PG&E's expanded fire risk reduction work at that time.

For this GRC, PG&E states that the reason its line item for Fire Risk Reduction program does not show any recorded costs for 2011 is because "PG&E's current work to reduce the risk of fires is recorded as part of its Routine Tree Work, so therefore does not appear as Fire Risk Reduction work for 2011-2013 in Table 8-

[60] Ex. PG&E-4, workpapers Table 8-6, p. WP 8-6.

[61] Ex PG&E-4, p. 8-18.

1.”[62] Similarly, in its TY 2011 GRC, PG&E did not show any historical expenses recorded for its Fire Risk Reduction work for the years 2004-2008 even though PG&E argued that it had been performing fire risk reduction work as part of its on-going and routine maintenance activities.[63] PG&E has embedded historical expenses that can be reallocated and utilized to address its proposed Fire Risk Reduction Program needs.

Regarding embedded historical costs associated with PG&E's Fire Risk Reduction activities, DRA requested additional information from PG&E on its proposed program:

> PG&E states that its "Fire Risk Reduction forecast for 2014 reflects a more rigorous assessment and possible removal of trees that could fall into its power lines in selected locations…" (page 8-4) Provide the documentation that explains in detail and demonstrates if PG&E, as part of its normal and routine maintenance, assessed trees for "possible removal that could fall into its power lines in selected locations" between 2007 and 2011. If PG&E never utilized authorized funding to assess trees that "could fall into its power lines" and cause potential fires, between 2007 and 2011, as part of its normal and routine vegetation management maintenance, please state so.[64]

PG&E's response:

> Between 2007 and 2011 (and prior) PG&E did assess trees for "possible removal that could fall into its power lines in selected locations". As stated in the testimony (Exhibit (PG&E-4), Chapter 8, page 8-2, lines 15-30): "To support public safety, service reliability and regulatory compliance, PG&E annually inspects approximately five million trees along approximately 113,500 miles of high-voltage distribution lines. Approximately 1.3 million trees were pruned or

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[62] DRA-PG&E-083-TLG Q.1-b.

[63] Ex. (PG&E-3, Table 5-4 p. 5-20. PG&E stated in its 2011 GRC that "PG&E began a program in mid-2006 to reduce the risk of fires by removing overhanging branches in urban areas as part of its routine tree trimming and removal program. The recorded expenses for the program were $7.0 million in 2007 and $10.4 million in 2008" (Exhibit (PG&E-3) p. 5-27).

[64] DRA-PG&E-083-TLG, Q.2.

> removed in 2011 to maintain regulatory compliance-required distances and/or to prevent trees from failing into power lines. Regulatory compliance distances are set forth in GO 95 Rule 35 and PRC 4293. 'Hazard trees' are also identified during annual inspections. A hazard tree is a tree or tree part that is deemed structurally unsound and could strike a power line if it were to fall. PG&E estimates that there are approximately 50 million trees tall enough to hit high-voltage distribution lines if they were to fall, and some of these are deemed to be hazard trees. GO 95 Rule 35, PRC 4293 and CAL Fire Power Line Fire Prevention Field Guild articulate the regulatory requirements for identifying hazard trees. Hazard trees are pruned or removed to prevent them from striking power lines.' General Order 95, Rule 35 and Public Resources Code 4293 both require removal of trees (or potions thereof) that are really identifiable as dead, dying or diseased. These 'hazard trees' are currently identified and addressed during PG&E's annual inspections. Outage reduction is a primary focus of PG&E's vegetation management program and PG&E removed branches (and some trees) at select locations from 2007 and 2010. In Exhibit (PG&E-4), Chapter 8, page 8-4, lines 19-22 of the testimony PG&E discusses the vegetation management program's expanded focus on branches overhanging the conductors that began in 2011: 'In 2011, PG&E expanded its fire risk work to include rural areas and the removal of overhanging tree branches on selected high risk circuits. This fire risk reduction work has been made a part of PG&E's Routine Tree Work'. In addition to the work described above, which has mainly focused on dead trees or branches overhanging the conductors, the proposed 2014 fire risk reduction plan will also look at all trees at a given location…

PG&E's response demonstrates that it has been performing Fire Risk Reduction work for several years, in particular, assessing trees for "possible removal [of trees] that could fall into its power lines in selected locations." PG&E's response does not address incorporation of embedded costs for on-going and routine activities that are similar to activities that will be performed in the Test Year. It is inappropriate to require increased ratepayer funding for activities that already have costs embedded in PG&E's historical expenses. PG&E has not provided any documentation demonstrating that its current funding levels for its fire risk reduction work is insufficient.

Table 6-10 below shows PG&E's recorded costs for its Fire Risk Reduction work for the years 2007-2011, and these costs are included in PG&E's historical expenses for its Routine Tree Work. The five year average of $10.129 million for PG&E's Fire Risk Reduction expenses is comparable to PG&E's 2014 GRC request of $11.113 million. PG&E's 2011 Fire Risk Reduction expenses are the highest recorded for the five year period and is a reasonable expense level for the Test Year. Essentially, PG&E already has embedded costs in rates which are sufficient for the utility to do the work, and the Commission should deny PG&E's request for an additional $11.113 million.

Table 6-10
2007-2011 Fire Risk Reduction Costs
(in Thousands of 2011 Dollars)

Description	2007	2008	2009	2010	2011
Fire Risk Reduction costs	$6,655	$10,002	$8,252	$7,322	$18,413

Source: PG&E's response to DRA's data request DRA-PG&E-083-TLG Q.1-b and 1-c.

5. Environmental Compliance

PG&E forecasted $12.591 million for its Environmental Compliance expenses, which is an increase of $12.276 million or 3,896% over its 2011 recorded adjusted expenses of $0.315 million. PG&E's request includes additional funding for screening, surveying and monitoring, permitting, mitigation, staff and Vegetation Control VC erosion mitigation.[65] PG&E's request for additional funding for its Environmental Compliance expenses is excessive and not justified based on historical levels for this line item. DRA's Test Year estimate is $2.361 million for PG&E's Environmental Compliance expenses. DRA normalized half of PG&E's incremental request of $6.138 million over the three year rate case cycle to arrive at additional funding of $2.046 million over 2011 recorded adjusted expenses of $0.315 million. DRA's estimate is higher than PG&E's recorded historical expenses for

[65] Ex. PG&E-4, pp. 8-3, 24.

Environmental Compliance activities and should be more than adequate for PG&E to address its needs in the Test Year.

Based on its historical spending on Environmental Compliance, PG&E will not require additional funding of $12.276 million in the Test Year to perform the activities for this line item. PG&E's five year average (2007-2011) for this line item is $0.204 million and the three year average (2009-2011) is $0.317 million. During PG&E's 2011 GRC, PG&E requested additional funding of $3.0 million for its Environmental Compliance expenses.[66] DRA took issue with PG&E's forecast and recommended additional funding of $1.0 million.[67] PG&E's 2011 recorded adjusted expenses for Environmental Compliance of $0.315 million is less than PG&E's 2011 GRC forecast of $3.0 million and less than DRA's recommendation of $1.0 million.

During a field tour[68] to observe some of PG&E's vegetation management activities, DRA learned that PG&E has incurred costs associated with screening, surveying and monitoring, permitting, mitigation, additional staffing and VC erosion mitigation during the historical period (2007-2011). PG&E's proposed activities are not new and are part of PG&E's on-going, normal and routine maintenance activities that are funded by ratepayers. PG&E has embedded historical costs that it can reallocate and utilize in the Test Year for its Environmental Compliance activities. DRA requested additional information from PG&E on its proposed program, including the following:

> PG&E's 2014 forecasts for MWC HN include additional funding of $12.6 million for its Environmental Compliance expenses. This is an increase of $12.276 million over 2011 recorded expenses of $0.315

[66] PG&E's 2011 GRC forecast for its Environmental Compliance line item was included in its Ex. (PG&E-3) Table 5-4, p. 5-20 to A.09-12-020.

[67] See DRA's Ex. DRA-5, p. 50 on PG&E's 2011 GRC forecast on Vegetation Management Expenses recorded in MWC HN, in A.09-12-020.

[68] The PG&E Vegetation Management field tour was on March 14, 2013.

> million. In PG&E's 2011 GRC, PG&E requested funding of $3.0 million for its Environmental Implementation costs associated with its Environmental Compliance. PG&E's five year average (2007–2011) for its Environmental Compliance expenses is $0.203 million. Provide a detailed and itemized listing (line item breakdown of expense calculation) for all labor (including positions, job titles, and annual salary) and non labor expenses that is included in the $12.6 million forecast for PG&E's Environmental Compliance program and the basis/source for each estimate.[69]

PG&E's response:

> PG&E did not forecast by labor and non-labor. As stated in Exhibit (PG&E-4), Chapter 8 testimony on page 8-27, lines 12-15, 'whenever possible, PG&E used forecast units times forecast unit costs to arrive at cost estimates for the different sections. See workpapers for a more detailed breakdown of the estimates used'. Workpaper Table 8-12 found, on page WP 8-14 of the Exhibit (PG&E-4) Workpapers, provides a detailed and itemized listing of the $12.6 million forecast for PG&E's Environmental Compliance efforts calculated as forecast units times forecast unit costs.

PG&E's response does not justify an increase of $12.276 million over 2011 recorded adjusted expenses of $0.315 million. During a vegetation management field tour, PG&E informed DRA of increasing restrictions, procedures and complications being encountered by PG&E relating to the environmental concerns from other stakeholders about specific areas and permitting guidelines associated with removing trees identified by PG&E as "hazard trees". It is possible that additional projects for the above mentioned issues could increase costs over 2011 recorded levels, however, PG&E provided no traceable and identifiable support to demonstrate that additional funding of $12.276 million over 2011 expense levels of $0.315 million is necessary or required to address Test Year activities. Considering PG&E's historical spending on Environmental Compliance, DRA's Test Year method is reasonable and its estimate of $2.361 million is sufficient for PG&E to address its proposed activities for this line item.

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[69] DRA-PG&E-083-TLG, Q.2.

VI. DISCUSSION / ANALYSIS OF DISTRIBUTION SYSTEMS OPERATIONS

PG&E's Distribution System Operations (DSO) monitors its electric system, manages outage restoration, directs system switching, and manages its electric-related field customer service work. Table 6-11 summarizes PG&E's request and DRA's recommendation for the MWCs within Distribution System Operations.

Table 6-11
Electric Distribution Expenses for TY2014
Distribution System Operations
(In Thousands of Dollars)

Description (a)	PG&E Proposed[70] (b)	DRA Recommended (c)
BA- Operate Distribution System	$32,743	$28,769
DD- Provide Field Service	$20,328	$19,813
HG- Elec Trans Ops Engr & Tech	$1,037	$769
JV- Maintain IT Apps & Infra	$877	$0
Total	$54,985	$49,351

A. Overview of PG&E's Request

PG&E forecasts $54.985 million for its DSO expenses for Test Year 2014.[71] PG&E developed its forecast by utilizing its 2011 recorded expenses as a basis and adjusted for escalation, additional staff, reduction of system operators and support staff, employee training and software related to electronic wall mapping.[72] PG&E's forecast also includes its proposal to consolidate thirteen existing Distribution Control Centers (DCC) into three new locations.[73] The corresponding DRA estimate

[70] Ex.PG&E-4, Chapter 11, Workpapers p. WP 11-1.

[71] PG&E's 2014 forecast of $54.986 million is shown in Ex.PG&E-4 workpapers Table 11-1, p. WP 11-1.

[72] Ex.PG&E-4, p. 11-9, 11-10, 11-14, and 11-15.

[73] Ex. PG&E-4, p. 11-2. PG&E plans to construct one central Distribution Control Center and two regional facilities.

for PG&E's DSO expenses is $49.351 million, which is $5.634 million less than PG&E's forecast. Table 6-12 below shows PG&E's recorded adjusted expenses for 2007-2012 and its 2014 forecast.

Table 6-12
2007-2012 Recorded Data and 2014 Forecast for MWC BA, DD, HG, and JV
(in Thousands of Dollars)

Description	2007	2008	2009	2010	2011	2012	2014 Forecast
BA- Operate Distribution System	$32,246	$33,884	$35,218	$35,163	$33,681	$33,401	$32,743
DD- Provide Field Service	$15,064	$15,061	$18,611	$19,409	$19,813	$19,264	$20,328
HG-Elec Trans Ops Engr & Tech	$683	$499	$448	$545	$749	$769	$1,037
JV- Maintain IT Apps & Infra	$0	$0	$0	$0	$0	$521	$877
Total	$47,993	$49,444	$54,277	$55,117	$54,243	$53,955	$54,985

Source: 2007-2011 data from Ex. PG&E-4, Chapter 11, Workpapers p. WP 11-1. The 2012 data is from PG&E's response to DRA data request DRA-PG&E-108-CKT.

PG&E records expenses for DSO in four Major Work Categories (MWCs): BA - Electric Distribution Operation Activities, with a forecast of $32.743 million, DD - Field Service and Dispatch Scheduling, with a forecast of $20.328 million, HG - Electric Distribution Operations Technology Activities, with a forecast of $1.037 million, and JV - Maintenance of Information Technology Applications, with a forecast of $0.877 million.[74]

[74] Ex. PG&E-4 workpapers p. WP 11-1.

B. MWC BA – Electric Distribution Operation

PG&E forecasts $32.743 million for MWC BA – Electric Distribution Operation expenses.[75] PG&E's request includes additional funding for 27 new hires,[76] adjustments for 41 staff reductions, employee/operator training, curriculum development, and interdepartmental energy usage.[77] PG&E's forecast also includes its proposal to consolidate thirteen existing Distribution Control Centers (DCC)[78] down to one Central DCC and two regional facilities.[79]

PG&E's forecast for MWC BA is not justified based on historical expense levels. DRA forecasts $28.769 million for PG&E's MWC BA, which is $3.974 million less than PG&E's forecast. The basis for DRA's estimate is PG&E's 2011 recorded costs for MWC BA.[80]

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[75] Ex.PG&E-4, workpapers WP p. 11-1. The costs to operate and maintain PG&E's DCCs are charged to MWC BA. The majority of PG&E employee training costs are planned and recorded in its Provider Cost Centers (PCC). PG&E organized its 2014 GRC filing by MWC and not by PCC. PG&E is requesting employee training costs in MWC BA. (PG&E's response to DRA-PG&E-084-TLG Q.5-i).

[76] PG&E describes this as the"[a]ddition of seven employees and the replacement of 15 Assistant System Operators with 20 higher skilled and more experienced dispatchers…" (Ex, PG&E-4, p. 11-9, lines 16-20.)

[77] Ex.PG&E-4, pp.11-2, 11-9, 11-10, and 11-15.

[78] In PG&E's 2011 GRC it proposed to consolidate/eliminate seventeen DCCs down to four new DCCs. DRA requested clarification on PG&E's proposed DCCs consolidation. "In the 2010/2011 time period, the electric distribution operations team executed a "DCC pre-consolidation" project which consisted of expansions and upgrades to six of the existing control centers allowing for the reduction in the number of control centers from 17 to 13." PG&E's expenditures for its DCC pre-consolidation project were $3.785 million in 2010 and $0.709 million in 2011. (PG&E's response to DRA-PG&E-084-TLG Q. 5-h).

[79] Ex. PG&E-4, p.11-7.

[80] DRA's estimate of $28.769 million is based on what appears to be a revised amount by PG&E for its 2011 recorded costs for MWC BA. PG&E provided its 2011 recorded operations costs of $28.769 million (this amount includes labor, non-labor expenses and interdepartmental energy usage recorded in MWC BA) associated with its thirteen DCCs in its response to DRA-PG&E-084-TLG Q.5-i. The 2011 recorded costs of $28.769 million are different from the 2011 recorded adjusted expense of $35.536 million that PG&E shows in its workpapers (See Ex. PG&E-4, workpapers p. 11-1).

PG&E's forecast for MWC BA appears to be overstated, which causes ratepayers to be unnecessarily overcharged for the work activities in the Test Year for MWC BA. As shown in Table 6-12 above, PG&E's 2014 forecast of $32.743 million is comparable to historical expense levels. This is problematic. PG&E's recorded adjusted expenses for 2007-2010 includes operational costs for seventeen DCCs, and its 2011 recorded adjusted expenses includes operational costs for thirteen DCCs. PG&E's 2014 GRC forecast is supposed to include costs for the operation of only three DCCs along with incorporated employee cost reductions and savings caused by added efficiencies from the DCC consolidation project.

PG&E's 2011 recorded adjusted expenses for MWC BA is shown as $33.681 million.[81] However, PG&E's 2011 GRC Imputed amount was $36.023 million for MWC BA. PG&E's 2011 GRC budgeted amount was $41.242 million for its MWC BA.[82] PG&E's 2011 recorded adjusted expense of $33.681 million is $2.342 million less than its 2011 GRC Imputed amount and is $7.561 million less than PG&E's 2011 GRC budgeted amount. Similarly, PG&E forecasted $35.536 million for 2012 for MWC BA in its 2014 GRC, but its 2012 recorded adjusted expenses for MWC BA is $33.401 million. This is $2.135 million less than the 2012 forecasted amount.[83]

Although DRA utilized PG&E's 2011 revised recorded cost for MWC BA of $28.769 million as its Test Year estimate, this amount is overstated because further

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[81] The 2011 recorded amount of $33.681 million is from Ex. PG&E-4 workpapers p. WP 11-1.

[82] PG&E's 2011 GRC Imputed and budgeted amounts are from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p. 2-11. PG&E states the following as the reason for the difference between its 2011 Imputed and budgeted amounts: "Increase primarily due to an increased forecast of unclaimed meter costs and routine electric operations labor, partially offset by a reduction in forecasted Distribution Control Center consolidation training costs". PG&E's 2011 recorded adjusted expenses of $33.681 million for MWC BA is less than PG&E's Imputed and budgeted amounts.

[83] PG&E's 2011 GRC Imputed amount is from PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018. PG&E's 2012 recorded expense amount is from PG&E's response to DRA-PG&E-108-CKT. The 2011 recorded amount and the 2012 forecasted amounts are from Exhibit (PG&E-4) workpapers p. WP 11-1.

adjustments are appropriate. PG&E did not provide any documentation that clearly and specifically demonstrated how PG&E incorporated identifiable and calculated ratepayer savings costs associated with the DCCs consolidation project into its 2014 GRC Test Year forecast. PG&E proposed staff reductions and reductions in associated overtime. PG&E did not provide the specific positions and associated annual salary for the specific positions being eliminated or verifiable documentation on the calculated overtime savings costs for 2014. PG&E states the following regarding its proposed staff reductions:

> The proposed staffing reductions due to consolidation for 2014 are a best estimate based on PG&E's judgment at the time the forecast was made and PG&E has not yet identified the specific positions and job titles. There is no other documentation available on this subject.[84]

PG&E states the following regarding proposed savings associated with the reduction in overtime (PG&E is scheduled to eliminate ten system operator positions and one support position in 2013 and an additional ten system operator positions and five more support positions in 2014):

> Beginning in 2016, a 25% reduction in overtime for the remaining Operators is assumed. A total of $1.5 million per year is forecasted based on overtime savings of $15K/Operator for the remaining 100.[85]

PG&E's responses are insufficient and incomplete and do not show any incorporation of ratepayer savings costs in the 2014 GRC forecast for reduced labor and associated overtime. PG&E's forecast for 2012 of $35.536 million was supposed to include additional costs of $2.507 million for the addition of seven new positions and "the replacement of 15 Assistant System Operators with 20 higher skilled and more experienced dispatchers".[86] The 2012 forecast was also supposed

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[84] PG&E's response to DRA-PG&E-084-TLG, Q.1-e.

[85] Ex. PG&E-4, workpapers p. WP 11-33.

[86] Ex.PG&E-4, workpapers p. WP 11-8.

to include additional costs of $0.750 million for process development associated with its DCCs consolidation project. At the same time, PG&E's 2012 forecast was supposed to show the results of reduced labor and associated overtime. DRA also notes that PG&E's 2012 recorded adjusted expenses of $33.401 million are $2.135 million less than PG&E's 2012 forecast of $35.536 million, adding doubt to the reliability of PG&E's forecasts.

PG&E's 2014 forecast of $32.743 million does not show any identifiable and calculated savings costs for the following: reduced training costs[87] based on reduced headcount, reduced operating costs for thirteen eliminated DCCs, reduced maintenance costs (new/upgraded facilities and equipment require less maintenance than older equipment and facilities), calculated efficiency costs gained from eliminating paper wall maps maintained manually and the efficiency gains from implementing electronic wall mapping systems, efficiency savings costs from streamlined operational processes and reduced manual labor, efficiency gains from eliminating the costs and need to maintain, record and manage multiple systems, etc.[88]

Regarding ratepayer benefits and savings on proposed projects, the Commission has stated the following**:**

> The descriptions of the potential benefits of the projects provide general information but there is not sufficient information to determine whether the costs are justified in either the short or long term. With this type of analysis and showing it is possible to explicitly include associated costs in rates but it is not possible to explicitly reflect any of the associated benefits or savings, whatever they may ultimately be, in rates for this rate case cycle. This imbalance is troubling. In general, it

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[87] PG&E forecasted $0.800 million in 2013 and $0.400 million in 2014 for additional employee training associated with its DCC consolidation project. PG&E received authorized funding in its 2011 GRC for employee training associated with its DCC consolidation project, and therefore PG&E has embedded training costs that can be reallocated and utilized and no additional funding for this activity is required in the Test Year.

[88] Ex.PG&E-4, workpapers pp. WP 11-25 to WP 11-31.

> is our obligation to consider both the costs and, if applicable, the benefits/savings of utility proposals. If the benefits/savings are ultimately small when compared to costs, the proposal should probably not be implemented or included in rates. If the benefits/savings are substantial, it would be reasonable to include both the costs and benefits/savings in determining rates. For the advanced technology programs/projects, the lack of information regarding benefits/savings precludes us from making such determinations. In this decision, we are authorizing significant increases in T&D O&M and capital expenditures. How the potential benefits of the advanced technology programs/projects relate to SCE's proposals for increased spending is not clear. Whether the advanced technology spending results in the modification of any future spending related to T&D costs has not been shown.[89]

PG&E implemented a DCC "pre-consolidation" project with costs of $3.785 million in 2010 and $0.709 million in 2011.[90] PG&E incurred costs for DCC "pre-consolidation" that expanded and upgraded DCCs that PG&E is proposing to eliminate. PG&E did not provide any documentation demonstrating how these costs were incorporated in its Test Year estimate or documentation that discussed how these expanded and upgraded DCCs would be utilized in the Test Year. PG&E's decision to incur costs, at ratepayer expense, to upgrade and expand DCCs that it proposed in its 2011 and 2014 GRCs to eliminate is problematic. PG&E states:

> In the 2010/2011 time period, the electric distribution operations team executed a "DCC pre-consolidation" project which consisted of expansions and upgrades to six of the existing control centers allowing for the reduction in the number of control centers from 17 to 13.[91]

[89] D.06-05-016 p. 64.

[90] PG&E's response to DRA-PG&E-084-TLG Q.5-h.

[91] PG&E's response to DRA-PG&E-084-TLG Q.5-h.

PG&E has embedded historical costs that can be reallocated and utilized for its proposed Test Year activities for MWC BA. It is inappropriate to charge ratepayers excessive costs for PG&E's DCCs consolidation projects for activities that are already included in its historical costs. Based on the foregoing, DRA's Test Year estimate of $28.769 million for PG&E's MWC BA should be adopted; PG&E has not proved that any additional funding is reasonable over this amount.

1. Summary of PG&E's Distribution Control Center Consolidation Proposal

In PG&E's 2011 GRC, PG&E proposed to consolidate its seventeen DCCs down to four large control centers with a capital forecast of $133 million. The DCC consolidation project was supposed to be completed in 2013.[92] In January 2012, PG&E "re-initiated" its DCC consolidation program. The "re-initiated" DCC consolidation project would reduce its thirteen DCCs down to one central control center and two regional facilities with a capital forecast of $72.3 million.[93] PG&E's DCC consolidation project is supposed to be completed in 2014.[94] PG&E states that "[t]his control center configuration will ultimately provide geographic coverage throughout PG&E's service territory while eliminating the need to maintain and staff the existing 13 DCCs".[95]

[92] Ex. PG&E-4, p. 11-2 and PG&E's response to DRA-PG&E-084-TLG Q.5-b.

[93] DRA's capital witness will address the costs of PG&E's DCC consolidation project. PG&E's capital forecast for its DCC consolidation project also includes $9.7 million for software recorded in MWC 2F. The capital forecast of $72.3 million for the three new DCCs is recorded in MWC 63D (Ex. PG&E-4, pp. 11-2 and 11.15). Regarding PG&E's changes in its DCC consolidation project, PG&E states "No specific documentation is available formalizing the change in strategy. At the time of forecast preparation, this strategy change was still under development". (PG&E's response to DRA-PG&E-084-TLG Q.5-b.)

[94] Ex. PG&E-4, p.11-14 and PG&E's response to DRA-PG&E-084-TLG Q.5-b.

[95] Ex. PG&E-4, p. 11-14.

In PG&E's 2011 GRC, DRA had concerns with PG&E's lack of support and justification for the DCC consolidation project. DRA recognized that the DCC consolidation project would provide some ratepayer cost savings and benefits due to gained efficiencies. However, because PG&E's 2011 GRC showing had many uncertainties, DRA recommended that PG&E's project proceed in two phases. The first phase would consolidate eight of its distribution facilities into two new locations for the 2011 rate case cycle. DRA recommended that PG&E's other nine DCCs remain in operation until the 2014 GRC.

In the 2014 GRC, DRA recommended that PG&E show sufficient information on the total costs of the two newly consolidated facilities (including permits, environmental studies, location, etc.), and information on the steps involved in the consolidation of the eight facilities and associated problems, reduced staffing/overtime savings, proposed plans for displaced employees, demonstrated ratepayer savings, benefits and efficiency gains, etc.

As mentioned above, PG&E delayed its DCC consolidation project that was included in its 2011 GRC. In its TY 2014 showing, PG&E has provided additional information on its DCC consolidation project which is scheduled for the 2014 completion time frame. However, DRA has similar concerns about PG&E's 2014 GRC showing lacking supporting documentation of the calculated ratepayer cost savings and not demonstrating how these savings, benefits and efficiency gains have been incorporated into its Test Year forecast.

2. PG&E's Employee, Operational Development, Software Development and Implementation Costs Related to its DCC Consolidation Project

PG&E's forecast for MWC BA of $32.743 million includes costs for employee training and associated labor and overtime, operational development, software development and implementation, and IT upgrades for electronic wall mapping associated with its DCC consolidation project. PG&E was authorized funding in its

2011 GRC to address these activities in MWC BA and in its Information Technology business unit.[96] In 2011, PG&E decided to defer this DCC consolidation project.[97]

PG&E Imputed $260.915 million and budgeted $246.369 million for its 2011 GRC for all of its IT work, including Electric Distribution IT for its DCC consolidation project.[98] PG&E delayed the development of several of the technology projects proposed in its 2011 GRC, including the projects for its DCC consolidation project.[99] PG&E also deferred its employee training[100] and reduced its 2011 GRC forecasts associated with its DCC consolidation project.[101]

PG&E's ratepayers should not be required to fund PG&E's projects associated with its DCC consolidation twice (in its 2011 GRC and its 2014 GRC) because PG&E deferred the project. As mentioned above, PG&E has embedded historical costs that can be reallocated and utilized to address its proposed projects for MWC BA in the Test Year.[102]

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[96] Regarding PG&E's 2011 GRC request associated with its DCC consolidation project, See DRA's 2011 GRC report in Ex.t DRA-5, pp. 71 through 78.

[97] PG&E states "No specific documentation is available giving formal notification that this project was placed on hold at this time". (DRA-PG&E-084-TLG, Q.5-a).

[98] DRA-PG&E-084-TLG, Q.5-e, and PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p. 7-1.

[99] PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p. 1-7.

[100] PG&E also has embedded historical costs for various completed, closed, and/or eliminated training programs that can be reallocated and utilized to address its training needs in the Test Year. PG&E's response to DRA-PG&E-TLG Q.5-g shows historical training costs fluctuating during the five year period (2007-2011).

[101] PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p. 2-11.

[102] PG&E also has embedded historical costs associated with expenses that are not necessary or required to operate the utility business. DRA requested that PG&E provide a detailed and itemized listing of all non-labor expenses by year (2007-2011) for costs incurred for employee meals, vendor payments for safety and other luncheons, entertainment expenses, employee recognition activities, sporting events, bonuses/Rewards & Recognition, company memberships, and other employee

(continued on next page)

C. MWC DD – Provide Field Service

PG&E forecasts $20.328 million for its MWC DD – Provide Field Services.[103] PG&E calculated its forecast for MWC DD utilizing its 2011 recorded adjusted expenses as a basis for its 2012 forecast and then used its 2012 forecast to calculate its 2014 GRC forecast amount. PG&E states that "for GRC purposes, the forecasted SmartMeter benefits are added back into the forecast because they are being accounted for through the absorption of escalation".[104] PG&E's forecast is not justified when compared to historical levels. DRA utilized PG&E's 2011 recorded adjusted expenses of $19.813 million as the basis for its estimate for PG&E's MWC DD. DRA's estimate is $0.515 million less than PG&E's forecast.

As shown in Table 6-12 above, PG&E's recorded adjusted expenses have been relatively stable for the last three years (2010-2012) with a three year average of $19.495 million and a five year average (2007-2011) of $17.592 million. PG&E's testimony for MWC DD does not discuss any proposed programs or projects requiring additional funding over 2011 recorded levels. In fact, PG&E states that its electric customer service work was transferred from its Customer Care Line of Business to its Electric Distribution Operation along with the necessary resources and expenditures to support the transferred work.[105] PG&E's 2011 recorded adjusted expenses of $19.813 million are the highest recorded for the six year period (2007-2012) and are a reasonable expense level for the Test Year.

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reimbursable expenses. *PG&E did not provide the requested information*. PG&E stated that these costs "are typically planned and recorded in a provider cost center (PCC), not in a Major Work Category". PCCs are the primary budgeting structure for the Company used to track employee-related costs that occur at the department level". (DRA-PG&E-084-TLG Q. 2). PG&E filed its 2014 GRC by MWC and not by PCC. The issue is not where these costs are recorded; DRA asked for PG&E to provide the amounts of the costs incurred that are embedded in PG&E's historical expenses for its employees.

[103] Ex.PG&E-4, workpapers p. WP 11-1.

[104] Ex.PG&E-4, p. 11-11.

[105] Ex.PG&E-4, p. 11-11.

D. MWC HG – Electric Distribution Operations Technology

PG&E forecasts $1.037 million for its MWC HG – Electric Distribution Operations Technology Activities.[106] PG&E calculated its forecast for MWC HG utilizing its 2011 recorded adjusted expenses as a basis plus an increase of $0.261 million for IT support costs (technology specialist and supervisors to provide support for applications associated with its "OIS, ILIS and DOD") and escalation.[107] PG&E's forecast is not justified when compared to historical levels. DRA utilized PG&E's 2012 recorded adjusted expenses of $0.769 million[108] as the basis for its estimate for PG&E's MWC HG. DRA's estimate is $0.268 million less than PG&E's forecast.

As shown in Table 6-12 above, PG&E's recorded adjusted expenses have been relatively stable for the last two years (2011-2012) with a two year average of $0.759 million and a three year average (2010-2012) of $0.688 million. The five year average (2007-2011) is $0.585 million. PG&E's 2012 recorded adjusted expenses of $0.769 million are the highest recorded for the six year period (2007-2012). PG&E states "IT support costs had historically been charged to both Distribution and Transmission, but will only be charged to Distribution going forward".[109]

PG&E did not provide any traceable or verifiable documentation that demonstrate the specific dates for when its Transmission will stop being charged IT support costs or that stated what the recorded costs were for 2007-2011 for its Transmission so that this data could be compared with information for its Distribution

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[106] Ex. PG&E-4, workpapers p. WP 11-1.

[107] Ex.PG&E-4- pp. 11-11 and 11-12 .

[108] DRA-PG&E- 108-CKT Q. 4.

[109] Ex.PG&E-4, p. 11-12.

to justify increases over 2011 expense levels. PG&E states "Personnel provide troubleshooting and issue resolution of these managed applications and ensure that they are operating effectively".[110] These activities appear to be on-going and routine and PG&E should have embedded historical costs for similar work that can be reallocated. PG&E's expenses increased by $0.204 million between 2010 and 2011 from $0.545 million in 2010 to $0.749 million in 2011. PG&E's testimony does not discuss the specific cause of this increase in expenses. PG&E has embedded historical costs[111] that can be reallocated and utilized to cover proposed activities of $0.261 million. PG&E's 2012 recorded adjusted expenses of $0.769 million are the highest recorded for the six year period (2007-2012) and is a reasonable expense level for the Test Year.

E. MWC JV – Maintenance of Information Technology Applications

PG&E forecast $0.877 million for its MWC JV – Maintenance of Information Technology Applications.[112] PG&E's forecast includes software labor (employee and contract labor) costs for the development and testing of its electronic wall mapping system for its DCC consolidation project.[113] PG&E developed its forecast

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[110] Ex.PG&E-4,p. 11-12.

[111] PG&E has embedded historical costs associated with expenses that are not necessary or required to operate the utility business. DRA requested PG&E to provide a detailed and itemized listing of all non-labor expenses by year (2007-2011) for costs incurred for employee meals, vendor payments for safety and other luncheons, entertainment expenses, employee recognition activities, sporting events, bonuses/Rewards & Recognition, company memberships, and other employee reimbursable expenses. *PG&E did not provide the requested information*. PG&E stated that these costs "are typically planned and recorded in a provider cost center (PCC), not in a Major Work Category". PCCs are the primary budgeting structure for the Company used to track employee-related costs that occur at the department level". (DRA-PG&E-084-TLG Q.2). PG&E filed its 2014 GRC by MWC and not by PCC. The issue is not where these costs are recorded, DRA asked for PG&E to provide the amounts all of the costs incurred that are embedded in PG&E's historical expenses for its employees.

[112] Ex. PG&E-4, workpapers p. WP 11-1.

[113] Ex. PG&E-4, workpapers p. WP 11-29.

for MWC JV "using inputs from PG&E's Concept Estimator tool".[114] PG&E's forecast is not justified based on historical levels and should be denied in its entirety.

PG&E does not show any expenses recorded for MWC JV for 2007-2011.[115] In PG&E's 2011 GRC, PG&E requested additional funding for software implementation costs, among other things, associated with its DCC consolidation project which PG&E decided to place on hold.[116] Although PG&E was authorized funding for its IT projects (including its DCC consolidation project), PG&E delayed the development of several of the technology projects it proposed in its 2011 GRC.[117] PG&E states the following regarding its decision to place on hold the proposed mapping software that it requested in its 2011 GRC associated with its DCC consolidation project:

> At the time of PG&E's 2011 direct testimony forecast, technology to enable electronic mapping was still evolving and different platforms that offered similar capabilities had started to converge. As the consolidation plan continued to be analyzed and refined, PG&E realized that technologies had not advanced to a point where full implementation within the original plan timeline was prudent. It made financial and operational sense to delay the consolidation until PG&E assessed the best approach to enabling technologies.[118]

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[114] Ex. PG&E-4, workpapers p. WP 11-29. DRA discovered during PG&E's 2011 GRC that the forecast estimates produced by PG&E's IT Concept Estimator tool were excessive, produced lump sum totals and the individual line items included in the estimates could not be substantiated. Therefore, forecasts produced by PG&E's Concept Estimator tool should not be relied upon to establish Test Year Estimates.

[115] PG&E does not show a breakdown of historical expenses or its 2011 GRC imputed amounts for MWC JV. PG&E Imputed $260.9 million for all of its IT work, including Electric Distribution IT for its DCC consolidation project (DRA-PG&E-084-TLG, Q.5-e).

[116] PG&E states "No specific documentation is available giving formal notification that this project was placed on hold at this time". (DRA-PG&E-084-TLG, Q.5-a).

[117] PG&E's August 3, 2011 Budget Report in Compliance with D.11-05-018, p. 1-7.

[118] Ex. PG&E-4, p. 11-15.

PG&E requested ratepayer funding in its 2011 GRC for technology to implement its electronic mapping system when, at the time it made the forecast, the company apparently knew that the "technology to enable electronic mapping was still evolving and different platforms that offered similar capabilities had started to converge". Therefore, it makes "financial and operational sense" for PG&E to prudently reallocate and utilize the 2011 GRC authorized funding (that is still embedded) for its 2014 GRC proposed software labor (employee and contract labor) costs for the development and testing of its electronic wall mapping system.[119]

DRA considers development, implementation and testing costs to be one time non-recurring costs and additional funding is not required each year during the rate case cycle for this activity. PG&E ratepayers should not be required to provide additional funding for recurring costs that are already embedded in historical expenses. PG&E has not provided any documentation to demonstrate that the funding it was authorized in its 2011 GRC associated with its DCC consolidation project is insufficient, so no additional funding is required in the Test Year for PG&E's MWC JV. PG&E had 2012 and 2013 to develop and test its electronic wall mapping system before the Test Year.

[119] During PG&E's 2011 GRC, DRA toured some of PG&E's DCCs that PG&E proposed to eliminate and while on the tours DRA observed the paper wall maps that PG&E proposed to eliminate. PG&E's 2011 GRC proposal included development and implementation costs for software to implement its electronic wall mapping system which was supposed to streamline operational processes, reduce manual labor, and reduce employee headcount due to gained efficiencies and consolidation. During PG&E's 2014 GRC, DRA once again toured PG&E's DCCs that PG&E proposed to consolidate and also observed a proposed location for one of the new DCCs. During the tour, DRA again observed the paper wall maps being maintained manually.