Application	:	A.05-12-002
Exhibit Number	:	DRA-15
Commissioner	:	Bohn
Admin. Law Judges	:	Kenney, Econome
Witness	:	Cabrera

DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations Electric and Gas Distribution Electric Generation for Pacific Gas and Electric Company

General Rate Case
Test Year 2007

Gas Distribution Plant

San Francisco, California
April 14, 2006

GAS DISTRIBUTION PLANT

I. INTRODUCTION

This Exhibit presents DRA's analysis and recommendations regarding PG&E's gas distribution capital expenditures and meter purchases. PG&E's presentation for these costs are contained in Exhibit PG&E-2, Chapter 8, Electric, Gas and Common Distribution Plant, and Exhibit PG&E-4, Chapter 10, Meter Purchases and Chapter 16, Gas Distribution Capital.

Section II of this Exhibit summarizes the differences between DRA's and PG&E's recommended capital expenditures for the indicated MWCs. Section III discusses DRA's analysis of PG&E's request and the basis for its recommended adjustments for MWCs 14, 50 and 74.

II. SUMMARY OF RECOMMENDATIONS

The following summarizes DRA's recommendations:

1. Gas Pipeline Replacement Program (MWC 14): DRA recommends total capital expenditures of $55.793 million in 2006 and $59.562 million in 2007. This compares to PG&E's requests of $63.473 million in 2006 and $66.953 million in 2007. DRA recommends adjusting PG&E's capital expenditures by $7.680 million in 2006 and $7.391 million in 2007.
2. Gas Distribution Reliability (MWC 50): DRA recommends total capital expenditures of $13.928 million in 2006 and $13.423 million in 2007 compared to PG&E's request of $14.250 million in 2006 and $15.767 million in 2007. DRA recommends adjustments of $322,000 in 2006 and $2.344 million in 2007.
3. Gas Meter Purchases (MWC 74): DRA recommends total capital expenditures of $30.085 million in 2006 and $30.918 million in 2007 compared to PG&E's request of $30.697 million in 2006 and $31.542

million in 2007. DRA recommends adjustments of $612,000 in 2006 and $624,000 in 2007.

Tables 15-1 and 15-2 compare DRA's recommended with PG&E's proposed estimates for those MWCs in which there are differences:

Table 15-1
Gas Distribution Capital Expenditures
(Thousands of 2006 Dollars)

Description	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
MWC 14 GPRP	$55,793	$63,473	$7,680	13.8%
MWC 50 Distrib. Reliability.	$13,928	$14,250	$322	2.4%
MWC 74 Gas Meter Purch.	$30,085	$30,697	$612	2.1%
Totals	$99,806	$108,420	$8,614	8.7%

Table 15-2
Gas Distribution Capital Expenditures
(Thousands of 2007 Dollars)

Description	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
MWC 14 GPRP	$59,562	$66,953	$7,391	12.4%
MWC 50 Distrib. Reliability.	$13,423	$15,767	$2,344	17.5%
MWC 74 Gas Meter Purch.	$30,918	$31,542	$624	2.0%
Totals	$103,903	$114,262	$10,359	10.0%

III. DISCUSSION

Gas Distribution plant is divided among five MWCs as follows:

14: Gas Pipeline Replacement Program (GPRP)

27: Gas Meter Protection Program

47: Gas Capacity

50: Gas Reliability

52: Gas Emergency Response

DRA reviewed MWCs 14, 47, 50 and 74 because of their relative larger dollar amounts. DRA examined PG&E's testimony, supporting workpapers, responses to

DRA data requests and studied PG&E's overall historical expenditures from 2000 to 2005. DRA also focused on the specific activities, and work units that drove the various forecasted expenditures. In the majority of MWCs, the forecasted work can be expressed in terms of one or more basic unit of activity. For the Gas Pipeline Replacement Program (MWC 14), the number of feet of gas main installed is the major unit of work driving expenditures. For gas capacity additions (MWC 47), the main drivers of costs are feet of main installed, and numbers of regulator stations installed as a result of the continued growth in gas load associated with the addition of new customers. Likewise, for Gas Reliability (MWC 50) the forecast is driven by known future projects as well as historical spending. The following sections discuss these MWCs in more detail.

A. MWC 14 Gas Pipeline Replacement Program (GPRP)

This MWC captures all capital expenditures related to aging gas pipe under the Company's GPRP. The program was implemented in January of 1985 and its scope is to replace all cast iron and most pre-1941 steel distribution mains throughout PG&E's system by the year 2014. Because of the large magnitude of resources required for the program, PG&E originally set a 25-year program time frame. The program was originally targeted for completion by the end of 2009, but is currently forecast to complete in 2014. There is no set deadline for completion, so PG&E is able to use its management discretion over project priorities thereby allowing for a moving completion date. Every year, PG&E submits a status report on the GPRP to the Commission in accordance with Decision 86-12-095. The most recent report was submitted in April, 2005 and covers program accomplishments in 2004.

DRA examined the GPRP's adopted Project Plan in order to evaluate the process PG&E uses to: (1) determine the annual funding requirements of the program, (2) set the targeted completion dates, and (3) decide where in the State to deactivate (replace) pipeline. The program is currently forecast to complete in divisions other than San Francisco by 2009. However, the overall program completion date was revised to 2014 based on program completion in the San

Francisco Division by that year. The work in San Francisco poses certain constraints not present in the other divisions, thus causing delays in the expected completion date. According to PG&E, some of the limiting factors in San Francisco are: (1) relative high costs, (2) the capacity of PG&E's workforce, and (3) minimizing the impact on residential and business customers.[1] Based on these constraints, PG&E established a replacement goal of approximately 19 miles of pipe per year for the San Francisco Division.[2] The 2014 completion date was calculated by dividing the approximate amount of pipe inventory in miles at the beginning of 2006 (173 miles) by the target 19 miles per year, or an additional 9 years to 2014. Therefore, PG&E has the ability to change its annual deactivation targets thereby pushing forward the expected completion date of the GPRP.

GPRP forecasts are based on deactivation goals, as demonstrated by the San Francisco Division example discussed above. In addition, all GPRP projects are prioritized based on a risk determination that includes the probability of a leak on each section of pipe and the potential consequences of that leak. The GPRP is a long term process in which PG&E has the ability to manage resources throughout all of the program's divisions. The 2007 forecast of capital expenditures is approximately 9% above the 2001-2004 average historical expenditures of $62.5 million.[3] However, the 2007 forecast is 20.4% higher than the average historical costs for the years 2003-2005. PG&E's explanation for the noticeable drop in expenditures in 2004 as compared to 2001-2003 was that 2004 was atypical for the GPRP. According to PG&E, the budget prioritization process [4] allocated a lower budget for the GPRP than

[1] PG&E's response to Data Request ORA-92, Question 6b.

[2] Ibid

[3] Exhibit PG&E-4, Chapter 16, page 16-3. DRA calculated an average of $61.2 million based on historical expenditures for 2001-2004.

[4] The budget prioritization process is described in Exhibit PG&E-4, Chapter 1.

prior years.[5] This is a good example of PG&E's ability to control how much it spends on, and the expected completion date of the GPRP.

DRA compared annual budgeted expenditures at the beginning of the year, to actual expenditures for the years 2000-2005 in order to evaluate PG&E's forecasting accuracy. PG&E provided both beginning of the year and end of the year budget data compared to actual expenditures for these years. The beginning of the year budgets are adjusted for transfers in/out of the program to arrive at the end of the year budget. Transfers include those to support higher priority work. However, DRA was more interested in comparing actual expenditures to the beginning of the year budgeted amounts in order to evaluate PG&E's ability to make reliable forecasts. Table 15-3 provides a comparison of the beginning of the year budgeted and actual expenditures for these years:[6]

Table 15-3
2000-2005 Budgeted vs. Actual Expenditures for GPRP
(Thousands of Dollars)

Year	Beginning of Year Budget	Actual Expenditures	Variance	Variance Percentage
2000	$56,931	$53,103	-$3,828	-6.7%
2001	$61,000	$61,949	$949	1.6%
2002	$62,509	$63,195	$686	1.1%
2003	$68,098	$71,910	$3,812	5.6%
2004	$49,591	$47,937	-$1,654	-3.3%
2005	$58,390	$46,972	-$11,418	-19.6%
Totals	$356,519	$345,066	-$11,453	-3.2%

The table above shows that the actual expenditures for the years 2000-2005 were 3.2% below forecasted expenditures. Most notable is the year 2005 which had a significant 19.6% variance of budgeted over actual expenditures. PG&E's explanation for the sharp drop was that several budget reductions were made during

[5] Exhibit PG&E-4, Chapter 16, pages 16-12, 16-13.

[6] PG&E's responses to Data Requests ORA-92, Question 10b, and ORA-216, Questions 8 and 10. .

the year to fund higher priority work. To support the high priority work, PG&E rescheduled the lower priority work of the GPRP to 2006.[7] For 2004 and 2005, the combined budget variance is -12.10% showing a downward trend in expenditures. This is a sharp contrast to PG&E's 2007 forecast which is 20.4% higher than historical expenditures for 2003-2005. DRA inquired about the downward trend in expenditures. According to PG&E, the downward trend in GPRP expenditures from 2003 to 2005 is primarily a result of the need to fund higher priority work in other programs.[8] In 2004, actual expenditures were under budget due to inadequate construction resources to perform the work.[9]

This data quantifies PG&E's ability to prioritize work, apply management discretion over how much it spends, and delay the expected completion date of the GPRP.[10] The actual expenditures for the years 2004 and 2005 provide a rational basis for recommending adopted forecasted expenditures. This is because the budget variances for these years are illustrative of PG&E's management control over the program's spending and ultimate completion date. The adopted capital expenditures should also reflect this discretion. PG&E's has the ability to: (1) change the targeted completion date of the program, (2) reduce funding for the program, and (3) prioritize work based on risk analysis.[11]

DRA recommends adjusting PG&E's forecast in 2006 to $55.793 million which is a reduction of 12.10% or the same percentage reflected in its combined forecast variances in 2004 and 2005 but is still 18.78% higher than the 2005 recorded

[7] PG&E's response to Data Request ORA-240, Question 5a.

[8] PG&E's response to Data Request ORA-240, Question 5b.

[9] Ibid

[10] Budget allocation and work prioritization decisions are made utilizing the T & D prioritization model as presented in Exhibit PG&E-4, Chapter 1.

[11] Exhibit PG&E-4, Chapter 16, pg. 16-12, lines 10-16.

expenditures.[12] There is no evidence to support the ambitious forecast of $63.5 million in 2006. For 2007, DRA recommends capital expenditures of $59.562 million which is based on the adjusted 2006 forecast and a four-year, inflation adjusted average for the years 2003-2006. The reason for this approach is to capture the indicated trend in the 2006 forecast in order to provide a rational basis for the 2007 forecast.

B. MWC 47 Gas Distribution New Capacity

This MWC represents the capital costs required to install facilities to increase distribution capacity to meet load growth associated with the addition of new customers. This is distinguished from system growth which represents capacity addition to support existing customers. The distinction is important to make in order to determine whether or not both types of costs are included in this MWC. They are not. According to PG&E, unless customer-specific load changes are known well in advance, system growth is accommodated within the existing Gas Capital budget.[13] Third-party construction activities, or known projects, are the primary driver of PG&E's 2006-2009 forecast. The work units driving the costs are feet of main installed and the number of regulator stations installed. For 2006 the Company forecast is $10.6 million and $11.2 million in 2007. DRA examined the workpapers supporting this MWC, PG&E's responses to data requests and historical expenditures for the years 2000-2005. DRA observed a general upward trend in expenditures, particularly starting in 2003. PG&E forecasted $7.4 million in 2005, but actual expenditures came in at $9 million. Based upon the indicated trend in growth, and PG&E's presentation for this MWC, DRA accepts PG&E's forecasts for 2006 and 2007.

[12] 18.78% is more representative of the percentage increase PG&E forecasted for 2007 expenditures over 2001-2004 average historical gas capital expenditures (Exhibit PG&E-4, pg. 16-2).
[13] PG&E's response to Data Request ORA-92, Question 2b.

C. MWC 50 Gas Distribution Reliability

This MWC represents expenditures to install equipment and facilities to improve system reliability and replace aging facilities not part of the GPRP (MCW 14 discussed above). The replacement of mains and services under this MWC apply to main pipe installed after 1940 and is distinct from MWC 14 which addresses the replacement of cast iron and pre-1940 steel gas mains and associated services.[14]

DRA reviewed PG&E's gas system reliability data in order to get an overall perspective of the nature of the expenditures in this MWC. According to PG&E, it has been able to achieve a system average reliability over 99.999%.[15] PG&E does not file gas reliability reports with the Commission, but does provide Gas Quarterly Incident Reports in compliance with General Order (G.O.) 112-E Section 122(e). In addition to the information it compiles for these reports, the Company also tracks the duration of gas outages. PG&E provided DRA with 2000-2004 recorded statistical data showing the relationship between the number of gas customer hours available (net of outage hours) and total gas customer hours available (without outage hours). The data showed a 99.99% reliability factor.[16]

DRA examined the workpapers supporting the forecasts for 2005-2008 as well as data request responses submitted by PG&E. The expenditure increases from 2004 (recorded $10.1 million) to the 2007 forecast of $15.8 million are primarily driven by historical expenditures, escalation, known future projects and rescheduled projects.[17] The differences between DRA and PG&E are small. DRA recommends a total of $13.928 million in capital expenditures for 2006 and $13.423 million for 2007. The recommended adjustments of $322,000 and $2.344 million for 2006 and 2007,

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[14] PG&E's response to Data Request ORA-92, Question 5a.

[15] Exhibit PG&E-4, pg. 16-1.

[16] PG&E's response to Data Request ORA-92, Question 1a.

[17] Exhibit PG&E-4, Chapter 16, page 16-8.

respectively, are due DRA's use of a 4 year inflation adjusted historical (and 2006 forecasted) average for 2002-2005 and 2003-2006 expenditures.

D. MWC 74 Gas Meter Purchases

Included in this MWC is the cost of purchasing gas meters, meter installation costs, meter removal costs, as well as purchasing and replacing gas regulators that meet the criteria of the Gas Regulator Replacement Program (GRRP). Pursuant to the GRRP, PG&E replaced all known ¾ inch domestic Reliance K, H, and Modern gas service regulators that do not contain an internal relief valve. Although the Company completed the program in 2005 as expected,[18] its 2006 and 2007 forecasts for MWC 74 include continuing regulator replacement in order to accommodate the need to replace domestic regulators that are determined to need replacement.[19] The meters forecasted to be replaced fall under two categories: (1) those meeting the criteria of the aforementioned GRRP, and (2) other gas regulators identified as needing replacement.

Gas meters are replaced because they have been field inspected and reported for corrective maintenance. Another factor that drives gas meter replacements is that they are no longer suitable for use in PG&E's gas distribution system because they do not meet the Company's gas pressure up-rating of a specific gas distribution system. The estimate of meters to be replaced is based on historical patterns of meters identified as needing replacement and other planned meter activities.[20]

DRA studied historical capital expenditures as well as historical units replaced for 2000-2005. PG&E's 2005 forecast was $37.5 million, while the actual expenditures were $36.5 million. DRA observed a general upward trend in the dollars expended as well as in the number of meter replaced per year. Except for the adjustments discussed below, DRA accepts PG&E's forecasts of gas meter purchases.

[18] PG&E's response to Data Request ORA-216, Question 6b.

[19] Exhibit PG&E-4, Chapter 10, page 10-9.

[20] Exhibit PG&E-4, Chapter 10.

As stated above, included in PG&E's forecasts in 2006 and 2007 are the cost of replacing gas regulators that do not contain internal relief valves, or those meeting the criteria of the GRRP. The Company forecasted $612,000 in 2006 and $624,000 in 2007 for GRRP activities. These forecasts are for the type of regulator that fall within the scope of the GRRP and is distinguishable from the other types of gas regulators included in the gas meter forecasts.[21] Since PG&E has completed the program,[22] it is inappropriate to include the forecasted costs associated with the program in 2006 and 2007. Accordingly, DRA recommends lowering the 2006 and 2007 forecasted capital expenditures by $612,000 and $624,000, respectively. This results in total recommended capital expenditures of $30.085 million in 2006 and $30.918 million in 2007.

[21] Workpapers, Exhibit PG&E-4, Chapter 10, pages 15-17.

[22] PG&E's response to Data Request ORA-216, Question 6b.