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

Sales, Customers and Other Operating Revenues

San Francisco, California
April 14, 2006

1   **SALES, CUSTOMERS, AND OTHER OPERATING REVENUES**

2

3   **I.   INTRODUCTION**

4   This exhibit presents DRA's analysis and recommendations regarding PG&E's

5   sales, customers, and other operating revenues.

6   Section II presents DRA's Summary of Recommendations. Section III presents

7   an overview of DRA's analysis.

8

9   **II.   SUMMARY OF RECOMMENDATIONS**

10   DRA analyzed PG&E's forecasts for electric customers and sales. DRA

11   accepts PG&E's forecast for the number of electric customers in the test year but

12   recommends a different sales forecast. Table 3-1 presents a comparison of DRA's test

13   year electric sales and customer forecasts with PG&E's at the system level:

14

15   Table 3-1
16   Electric Sales and Customers

Description	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
TOTAL ELECTRIC SALES (GWH)	85,948	84,933	-1,015	-1.2 %
ELECTRIC ACCOUNTS	5,189,898	5,189,898	0	0.0 %

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19   For the gas forecasts of customers and sales, PG&E proposes to use the

20   forecasts adopted in PG&E's 2005 Biennial Cost Allocation Proceeding (BCAP)

21   stipulation and settlement. DRA also recommends that the 2005 BCAP customer and

22   sales forecasts be adopted for PG&E's 2007 GRC. Table 3-2 presents these forecasts

23   at the system level:

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1   Table 3-2
2   Gas Sales and Customers

Description	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
TOTAL GAS SALES (MDTH)	741,427	741,427	0	0.0 %
TOTAL GAS ACCOUNTS	4,220,453	4,220,453	0	0.0 %

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6   DRA analyzed PG&E's forecasts for Other Operating Revenues. Table 3-3

7 presents a comparison of DRA's test year sales Other Operating Revenues with

8 PG&E's at the system level:

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10   Table 3-3
11   Other Operating Revenues
12   (Thousands of Dollars)

Description	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
OTHER OPERATING REVENUES	$119,128	$113,075	-$6,052	-5.1 %

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14 **III.**   **DISCUSSION**

15   **A. Electric Sales and Customers**

16   DRA reviewed the econometric models PG&E used to forecast electric

17 customers and sales for the residential, commercial, industrial, agricultural, railway,

18 street lighting, interdepartmental, public authority, and resale classes. DRA accepts

19 PG&E's electric sales and customer forecasts for all classes but residential. DRA

20 recommends a different sales forecast for the residential class. Table 3-4 presents a

21 comparison of DRA's test year electric sales forecasts with PG&E's by customer

22 class:

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Table 3-4
Electric Sales by Customer Class
(GWH)

Class	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
RESIDENTIAL	31,544	30,529	-1,015	-3.2 %
COMMERCIAL	34,062	34,062	0	0.0 %
INDUSTRIAL	15,398	15,398	0	0.0 %
AGRICULTURAL	3,902	3,902	0	0.0 %
RAILWAY	432	432	0	0.0 %
STREETLIGHTING	430	430	0	0.0 %
INTERDEPARTMENTAL	124	124	0	0.0 %
PUBLIC AUTHORITY	50	50	0	0.0 %
RESALE	5	5	0	0.0 %
TOTAL ELECTRIC SALES (GWH)	85,948	84,933	-1,015	-1.2 %

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6   Only the residential class forecasts differ, due to differing econometric models

7 for the historical data. PG&E used a double log econometric model in order to

8 forecast residential electric sales. The explanatory variables were functions of price,

9 weather, and conservation efforts. The forecasted variable was the log of monthly

10 sales divided by the consumer price index. The same variable, lagged twelve months,

11 was also used as an explanatory variable. This amounts to using sales from the

12 previous year to help predict future sales. When PG&E ran its model, it did not use

13 simple regression but performed an auto-regression of order 1. This amounted to also

14 using sales dating back one month to help predict future sales. In short, PG&E used a

15 time series model which used sales lagged one month and sales lagged twelve months

16 as well as independent explanatory variables to forecast future sales.

17   After verifying the results from PG&E's residential sales model, DRA was

18 able to find a similar time series model with better fit to the historical data. DRA also

19 used sales lagged one month and sales lagged twelve months as well as the same

20 independent explanatory variables as PG&E used to forecast future sales. However,

1   DRA's model did not include one of the independent explanatory variables used by

2   PG&E, the winter indicator variable. DRA dropped this variable because it did not

3   have a statistically significant effect in DRA's model. DRA's model also differed

4   from PG&E's model in that the dependent variable is the forecasted variable minus its

5   twelve month lag, whereas PG&E's model used the twelve month lag of the

6   forecasted variable as an explanatory variable.

7   PG&E's residential electric sales forecast was derived by fitting its

8   econometric model to historical data from February 1986 to June 2004. Using data

9   from that period, the goodness-of-fit indicators for PG&E's model were 0.9212,

10 0.9186, -973, and -946 for the R-squared, Adjusted R-squared, AIC, and SBC

11 goodness-of-fit statistics. For the same historical period, DRA's model yielded values

12 of 0.9443, 0.9424, -983, and -960 for the R-squared, Adjusted R-squared, AIC, and

13 SBC goodness-of-fit statistics. By definition, larger positive values of the R-squared

14 and Adjusted R-squared statistics are indicative of better fit; whereas more negative

15 values of the AIC and SBC statistics are indicative of better fit. For example, the R-

16 squared value of 0.9443 for DRA's model indicates a better fit to historical data than

17 the R-squared of 0.9212 for PG&E's model, and the AIC value of -983 for DRA's

18 model indicates a better fit than the AIC value of -973 for PG&E's model.

19   In summary, DRA's model yielded a better fit for all of the statistics

20 considered. A comparison of goodness-of-fit statistics between DRA's model and

21 PG&E's model when using historical data from February 1986 to December 2004

22 gave similar results. ORA's forecast is based on the results obtained when fitting its

23 model to the period from February 1986 to December 2004. Had ORA's forecast been

24 based on the results obtained when fitting its model to the period from February 1986

25 to June 2004 as PG&E did, its forecast would have increased from 31,544 GWH to

26 31,549 GWH, an inconsequential change.

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1   **B. Other Operating Revenues**

2   DRA accepts PG&E's test year estimates for Other Operating Revenues

3   (OOR) subject to the inclusion of an estimate of revenues derived from its proposed

4   implementation of a late payment fee. PG&E provided DRA with such an estimate for

5   test year 2007 and 2008. In test year 2007, PG&E proposes to collect this fee only for

6   the last five months of the year. Table 3-5 compares PG&E's proposed test year Other

7   Operating Revenues with DRA's proposed test year Other Operating Revenues which

8   includes PG&E's estimate for late payment fees.

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10   Table 3-5
11   Other Operating Revenues
12   (Thousands of Dollars)

Class	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
ELECTRIC GENERATION	$8,542	$8,542	$0	0.0 %
ELECTRIC DISTRIBUTION	$83,530	$78,960	-$4,570	-5.5 %
GAS DISTRIBUTION	$27,056	$25,573	-$1,483	-5.5 %
TOTAL	$119,128	$113,075	-$6,053	-5.1 %

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14   DRA obtained its estimates for electric and gas distribution late payment fees

15   components of OOR by converting PG&E's revenue estimate of late payment fees

16   for test year 2007 into 2007 dollars and then dividing that amount into electric and gas

17   distribution components proportional to 2004 electric revenues (74.5%) and gas

18   revenues (24.5%).

19   Given that PG&E proposes to collect late payment fees only in the latter part of

20   test year 2007, Table 3-5 does not fully reflect what PG&E will collect in subsequent

21   years. Table 3-6 provides test year estimates which are more indicative for subsequent

22   years. This table compares PG&E's proposed test year Other Operating Revenues

23   with DRA's proposed Other Operating Revenues, annualized under the assumption

24   that late payment fees will be collected for **all** the months of 2007.

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1   Table 3-6
2   Other Operating Revenues
3   (Thousands of Dollars)

Class	DRA Recommended	PG&E Proposed	Difference PG&E>DRA	Percentage PG&E>DRA
ELECTRIC GENERATION	$8,542	$8,542	$0	0.0 %
ELECTRIC DISTRIBUTION	$89,928	$78,960	-$10,968	-12.2 %
GAS DISTRIBUTION	$29,132	$25,573	-$3,559	-12.2 %
TOTAL	$127,602	$113,075	-$14,527	-11.4 %

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5   In Exhibit DRA-9, DRA proposes that a balancing or memorandum account be

6 set up to track PG&E's collection of late payment fees.