Application: 13-02-023
(U 39 E)
Exhibit No.:
Date: October 14, 2013
Witnesses: Various

PACIFIC GAS AND ELECTRIC COMPANY

PHASE 2 TESTIMONY

APPLICATION FOR COMPLIANCE REVIEW OF UTILITY OWNED GENERATION OPERATIONS, ELECTRIC ENERGY RESOURCE RECOVERY ACCOUNT ENTRIES, CONTRACT ADMINISTRATION, ECONOMIC DISPATCH OF ELECTRIC RESOURCES, UTILITY RETAINED GENERATION FUEL PROCUREMENT, AND OTHER ACTIVITIES FOR THE PERIOD JANUARY 1 THROUGH DECEMBER 31, 2012

CONFIDENTIAL INFORMATION PROTECTABLE UNDER DECISION 06-06-066, APPENDIX 1, GENERAL ORDER 66-C, AND SUBMITTED UNDER PUBLIC UTILITIES CODE SECTION 583

PACIFIC GAS AND ELECTRIC COMPANY
APPLICATION FOR COMPLIANCE REVIEW OF UTILITY OWNED GENERATION OPERATIONS, ELECTRIC ENERGY RESOURCE RECOVERY ACCOUNT ENTRIES, CONTRACT ADMINISTRATION, ECONOMIC DISPATCH OF ELECTRIC RESOURCES, UTILITY RETAINED GENERATION FUEL PROCUREMENT, AND OTHER ACTIVITIES FOR THE PERIOD
JANUARY 1 THROUGH DECEMBER 31, 2012
PHASE 2 TESTIMONY

TABLE OF CONTENTS

PACIFIC GAS AND ELECTRIC COMPANY

PHASE 2 TESTIMONY

ELECTRIC PORTFOLIO HEDGING PLAN:

GAS FINANCIAL TRANSACTIONS

PACIFIC GAS AND ELECTRIC COMPANY
PHASE 2 TESTIMONY
ELECTRIC PORTFOLIO HEDGING PLAN: GAS FINANCIAL TRANSACTIONS

TABLE OF CONTENTS

PACIFIC GAS AND ELECTRIC COMPANY
PHASE 2 TESTIMONY
ELECTRIC PORTFOLIO HEDGING PLAN: GAS FINANCIAL TRANSACTIONS

A. Introduction

This testimony discusses certain financial gas transactions that occurred during the January 1 to December 31, 2012 record period and were reported in Pacific Gas and Electric Company's (PG&E) Quarterly Compliance Reports (QCR) for Quarter 1, Quarter 2 and Quarter 3, 2012 that were not in compliance with PG&E's approved Electric Portfolio Hedging Plan (Hedging Plan).

PG&E requests that the California Public Utilities Commission (CPUC or Commission) approve the non-compliant transactions that occurred during the record period, approve the four transactions that were recently executed to offset the unexpired, non-compliant transactions in PG&E's portfolio, and direct that the net gain from these transactions be retained in PG&E's Energy Resource Recovery Account (ERRA) balancing account, which results in a net benefit for PG&E's customers. The remainder of this testimony:

(1) describes the non-compliant transactions that occurred during the record period;

(2) explains which Hedging Plan target was exceeded and why the transactions were executed outside of that target;

(3) discusses the corrective actions PG&E has put in place to ensure future compliance with Hedging Plan targets before executing transactions; and

(4) requests that the Commission approve: (i) the non-compliant transactions that occurred during the record period; (ii) the 2013 transactions that were used to offset unexpired transactions; and (iii) the retention of the net gain in ERRA for the benefit of customers.

B. Description of Transactions and Explanation of Operating Target Exceedence

During a recent internal review of 2013 hedging transactions, PG&E determined that certain transactions that occurred in 2013 were outside one of the operating targets in PG&E's Hedging Plan.[1] As a result of this discovery, PG&E reviewed transactions from 2012 to determine if this same limit had been exceeded in that year.[2] PG&E discovered forty-eight (48) transactions that were executed in the first three quarters of 2012 that were not in compliance with PG&E's Hedging Plan because one of the Hedging Plan's limits had been exceeded. These 48 transactions complied with the other Bundled Procurement Plan (BPP) and Hedging Plan requirements and limits, including approved products, approved transaction processes, and approved energy markets. However, these transactions did not comply with one of the Hedging Plan operating targets.[3]

The non-compliant transactions occurred because a control for one of the operating targets in the Hedging Plan was not included in PG&E's electronic hedging implementation model. The electronic model guides PG&E's execution of hedges and has embedded controls for Hedging Plan limits and targets that constrain when a transaction can be executed. If the operating target limit had been included in PG&E's electronic model, the 48 non-compliant transactions would not have been executed. PG&E has updated its electronic trading model to include a control for this limit, as discussed in more detail below in Section C. This correction is designed to ensure future transactions are in compliance with PG&E's BPP.

PG&E temporarily suspended all financial gas trading in order to carefully review the electronic model to ensure that all limits and targets in the Hedging Plan are accurately included. In addition to the omission described above, PG&E found one calculation error which had no impact on trading activities and that two additional provisions from the Hedging Plan were omitted from the model. PG&E has reviewed all the remaining trades executed in 2012 and

---

1 Non-compliant transactions that occurred in 2013 will be addressed in PG&E's 2013 ERRA Compliance application which will be filed in February 2014.

2 PG&E's current Electric Portfolio Hedging Plan was approved as part of its 2010 Bundled Procurement Plan on January 12, 2012 in Decision (D.) 12-01-033. The limit exceeded by the subject trades was first implemented under this plan. This application of the limit was not included in PG&E's previous electric portfolio hedging plans.

3 Since PG&E's Hedging Plan is confidential under D.06-06-066 and Public Utilities Code (PUC) Sections 454.5(g) and 583, the operating target limitations are described in Confidential Attachment A to this testimony.

found that all of them were in compliance with these two provisions (i.e., none of the trades would have been prevented by those provisions).

At the time PG&E discovered the non-compliant transactions, 37 of the 48 transactions had already settled. Since the remaining 11 transactions were still exposed to market price risk, PG&E executed four offsetting transactions during the first week of September 2013 to close out the open positions for the remaining 11 transactions from the record period. Therefore, all non-compliant 2012 transactions positions have been closed and a resulting net gain of $416,122, net of broker and exchange fees, will be realized. PG&E closed out these open positions to eliminate the risk that market movement would result in the remaining transactions settling at a loss.

The table below includes a summary of the 48 non-compliant transactions, including the notional value of settlements related to the 37 expired transactions, and the 4 offsetting transactions that were entered into in September 2013 to eliminate market risk exposure for the remaining 11 unexpired transactions. A detailed list of the transactions is included in Confidential Attachment B. Confidential Attachment C includes the transactions included in the original QCR submittals, by quarter.

Transaction Summary			
Trade Type	**Number of Trades**	**Delivery Period Covered**	**Notional Value**
Futures (buy)	**48**	**January 1, 2013 through December 31, 2014**	**($19,022,078)**
Futures (settled)	**37**	**January 1, 2013 through August 31, 2013**	**10,952,467**
Futures (sell)	**4**	**January 1, 2014 through December 31, 2014**	**8,493,393**
		Execution Fees	**(7,660)**
		Net Settled Gain	**$416,122**

C. Controls to Ensure Future Transactions Are in Compliance With Hedging Limits

Since discovering the non-compliant transactions, PG&E has implemented additional procedural controls that will prevent the reoccurrence of this issue and is updating its electronic model to include all provisions (constraints and limits) in the Hedging Plan. This model has already been modified to include the limit that would have prevented the execution of the non-compliant trades discussed here and was modified to correct a minor calculation error. This model, which is maintained by a team of quantitative analysts in PG&E's Market Risk Management Department, will also be reviewed by a separate, independent team of qualified analysts in the same department.

While this model uses Microsoft Excel to provide an interactive report to PG&E's gas traders, generation of the report and the formulas in the report are embedded in computer code. The report is automatically generated every night to update the model for market prices and portfolio positions. PG&E's gas traders do not have the ability to access or modify this code. Once the code is updated as described above and reviewed by the independent team, the code will be placed into production and "locked" from modification through password protection. In addition to updating the model, PG&E is also updating its change control process and verifying security for this model.

While use of an electronic model to guide implementation of the hedging plan is a preventative control, as a result of the non-compliant trades PG&E is adding a detective control to its management of hedging plan implementation. PG&E has developed a compliance report that will demonstrate that each of PG&E's gas financial trades complied with each of the provisions of its Hedging Plan. PG&E has provided copies of these reports for all financial trades executed in 2012 as confidential workpapers accompanying this testimony. PG&E will generate these reports frequently in order to detect any deviation from its approved Hedging Plan, which will allow PG&E's management to prevent reoccurrence of an ongoing case of non-compliance similar to that discussed here. PG&E will begin providing these reports with its Quarterly Compliance Reports beginning Q4-2013 and will include a complete set of these reports in support of its 2013 ERRA Compliance Application.

D. Request for Commission Approval

PG&E requests the Commission approve: (1) the 48 non-complaint transactions executed in 2012; (2) the four transactions executed in September 2013 to offset and close out the unexpired 2012 transactions; and (3) retention of the net gain the ERRA balancing account.

PACIFIC GAS AND ELECTRIC COMPANY

PHASE 2 TESTIMONY

ATTACHMENT A

ELECTRIC PORTFOLIO HEDGING PLAN: DESCRIPTION OF OPERATING TARGET LIMITS

PACIFIC GAS AND ELECTRIC COMPANY
PHASE 2 TESTIMONY– ATTACHMENT A
OPERATING TARGET LIMITATIONS

A. Introduction

This attachment describes the provision of PG&E's Electric Portfolio Hedging Plan violated by the subject 48 transactions. Since the details of PG&E's hedging plan are considered confidential, market sensitive information, PG&E provides a detailed description of the Notional Volume Constraint and an excerpt from PG&E's 2010 BPP below.

B. Description of the Notional Volume Constraint

The 48 transactions that were executed during the record period complied with all the provisions of PG&E's Electric Portfolio Hedging Plan except the Notional Volume Constraint on Financial Hedging.[1] The Notional Volume Constraint provision states:

> "For each delivery period, additional financial gas hedges will not be executed if the Gas Notional Percentage of *financial* hedges in the portfolio is greater than or equal to the Upper Operating Target."

The constraint is defined as, for each delivery period, additional gas financial hedges will not be executed if the Gas Notional Percentage of financial hedges in the electric portfolio is greater than or equal to the Upper Operating Target for gas, where the Gas Notional Percentage is defined as:

> "The sum of the volumes of all financial gas hedges for a particular delivery period, divided by the total gas obligation forecasted for PG&E-owned and contracted generating resources. Volumes for all gas financial hedges are measured using notional volumes. Volumes for gas obligation forecasted for generating resources are measured using delta values."[2]

The BPP allows an exception to this provision when the ratio of the portfolio To Expiration Value at Risk to the Customer Risk Tolerance level is greater than 125 percent. This threshold was not met for the 48 transactions.

Table B-1 in Confidential Attachment B includes the Gas Notional Percentage for the 1-12 month, 13-24 and 25-36 month delivery periods at the time each trade was executed. This demonstrates in which delivery period the

---

1 PG&E's Bundled Procurement Plan (BPP), Sheet No. 117.

2 *Id.*, Sheet No. 118

Gas Notional Percentage exceeded the Upper Operating Target. Table B-2 in Confidential Attachment B includes the transactions that PG&E executed to offset the 11 unexpired transactions.

An excerpt of the relevant pages of PG&E's BPP is included below.

Redacted

Redacted

PACIFIC GAS AND ELECTRIC COMPANY

PHASE 2 TESTIMONY

ATTACHMENT B

LIST OF TRANSACTIONS

PACIFIC GAS AND ELECTRIC COMPANY
2012 ERRA Compliance Review (A.13.02.023)
Phase 2 Testimony
Attachment B

Transaction Summary					
Trade Type	Number of Trades	Delivery Period Covered	Notional Value	Settled Value	Net Gain / (Loss)
Futures (buy) - Expired	37	January 1, 2013 through December 31, 2014	$10,671,850	$10,952,468	$280,618
Futures (buy) - Unexpired Futures (sell)	11 4	January 1, 2013 through December 31, 2014	$8,350,228	$8,493,393	$143,165
Total Buy Total Sell	48 4	Net Settled Gain	$19,022,078	$19,445,860	$423,783
		Execution Fees			($7,660)
Total					$416,122

PG&E
2012 ERRA Compliance Review
A.13-02-023

Attachment B
Table B1

CONFIDENTIAL INFORMATION
Protectable under D.06-06-066,
Appendix 1, and Submitted under
Pub. Util. Code § 583

Table B1

Transaction Count	QCR Quarter	Trans. ID	Trade Date	Product	Counterparty	Start Date	End Date	Volume (MMBtu)	Price / Premium	Strike Price	1-12 Months	13-24 Months	25-36 Months	Notional Value	Settled Value	Gain / (Loss)
	Settled Transactions										Rolling Notional Position (%)					
											112.50%	107.50%	100%			
1	Q3-12	923520	7/26/2012													Redacted
2	Q3-12	923523	7/26/2012													
3	Q3-12	923524	7/26/2012													
4	Q3-12	923706	8/2/2012													
5	Q3-12	923707	8/2/2012													
6	Q3-12	923705	8/2/2012													
7	Q3-12	923734	8/3/2012													
8	Q3-12	923737	8/3/2012													
9	Q3-12	923738	8/3/2012													
10	Q3-12	923739	8/3/2012													
11	Q3-12	923740	8/3/2012													
12	Q3-12	923743	8/3/2012													
13	Q3-12	923758	8/3/2012													
14	Q3-12	923794	8/6/2012													
15	Q3-12	924187	8/15/2012													
16	Q3-12	924188	8/15/2012													
17	Q3-12	924189	8/15/2012													
18	Q3-12	924370	8/20/2012													
19	Q3-12	924428	8/22/2012													
20	Q3-12	924429	8/22/2012													
21	Q3-12	924432	8/22/2012													
22	Q3-12	924433	8/22/2012													
23	Q3-12	924435	8/22/2012													
24	Q3-12	924437	8/22/2012													
25	Q3-12	924438	8/22/2012													
26	Q3-12	924502	8/24/2012													
27	Q3-12	924504	8/24/2012													
28	Q3-12	924505	8/24/2012													
29	Q3-12	924507	8/24/2012													
30	Q3-12	924914	9/19/2012													
31	Q3-12	924941	9/20/2012													
32	Q3-12	925155	9/28/2012													
33	Q3-12	925156	9/28/2012													
34	Q3-12	925162	9/28/2012													
35	Q3-12	925163	9/28/2012													
36	Q3-12	925164	9/28/2012													
37	Q3-12	925165	9/28/2012													
Total														$10,671,850	$10,952,468	$280,618

Note: * Target exceeded by transaction.

	Notional	Settled	Gain/(Loss)
Expired: 37 transactions - settled by end of August	Redacted		$280,618
Fees (Broker, FCM)			($2,932)

SB_GT&S_0757945

Table B1 — Transactions Subsequently Offset

Transaction Count	CQR Quarter	Trans. ID	Trade Date	Product	Counterparty	Start Date	End Date	Volume (MMBtu)	Price / Premium	Strike Price	Rolling Notional Position (%) 1-12 Months	13-24 Months	25-36 Months		Notional Value	Settled Value	Gain / (Loss)
									Upper Operating Target		112.50%	107.50%	100%				
Quarter 1 2012 CQR - Advice Letter 4033-E				Redacted													
1	Q1-12	920648	3/29/2012														
Quarter 2 2012 CQR - Advice Letter 4091-E																	
2	Q2-12	920794	4/3/2012														
3	Q2-12	922244	5/29/2012														
Quarter 3 2012 CQR - Advice Letter 4132-E																	
4	Q3-12	924936	9/20/2012														
5	Q3-12	924937	9/20/2012														
6	Q3-12	924503	8/24/2012														
7	Q3-12	924506	8/24/2012														
8	Q3-12	924498	8/24/2012														
9	Q3-12	924501	8/24/2012														
10	Q3-12	924500	8/24/2012														
11	Q3-12	924499	8/24/2012														
Total																	

Note: * Target exceeded by transaction.

Table B2 — Offsetting Transactions

Transaction Count	CQR Quarter	Trans. ID	Trade Date	Product	Counterparty	Start Date	End Date	Volume (MMBtu)	Price / Premium	Strike Price		Notional Value	Settled Value	Gain / (Loss)
1	Q3-13 - TBS	934075	9/5/2013	Redacted							-	Redacted		
2	Q3-13 - TBS	934078	9/5/2013								-			
3	Q3-13 - TBS	934080	9/5/2013								-			
4	Q3-13 - TBS	934083	9/5/2013								-			
Total	Redacted													

SB_GT&S_0757946

PACIFIC GAS AND ELECTRIC COMPANY

PHASE 2 TESTIMONY

ATTACHMENT C

TRANSACTIONS PRESENTED IN THE

2012 QUARTERLY COMPLIANCE REPORTS

Table C1
Q1 2012
Advice 4033-E Attachment A Excerpt
Gas Financial Transaction

CONFIDENTIAL INFORMATION
Protected under D.06-06-066,
Appendix 1, and Submitted under
Pub. Util. Code § 583

FINANCIAL GAS DEALS

Deal Number	Trade Date	Counter Party	Purchase or Sale	Deal Volume (MMBtu)	Price ($/MMBtu)	Contract Start Date	Contract End Date	Term (Days)	Price Type	Product Type	Method of Transaction	Broker Name	Trade Book	Deal Type	Affiliate	Comments	Notional	Daily/Monthly volume
Unexpired																		
46940	3/29/2012	Redacted																

C-1

Table C2
Q1/Q2 2012
Advice 4091-E, Attachment A Excerpt
Gas Financial Transaction

FINANCIAL GAS DEALS

Deal Number	Trade Date	Counter Party	Purchase or Sale	Deal Volume (MMBtu)	Price ($/MMBtu)	Contract Start Date	Contract End Date	Term (Days)	Price Type	Product Type	Method of Transaction	Broker Name	Trade Book	Deal Type	Affiliate	Comments	Notional	Daily/Monthly volume
Unexpired																		
920794	4/3/2012																	Redacted
922244	5/29/2012																	

FINANCIAL GAS DEALS

Deal Number	Trade Date	Counter Party	Purchase or Sale	Deal Volume (MMBtu)	Price ($/MMBtu)	Contract Start Date	Contract End Date	Term (Days)	Price Type	Product Type	Method of Transaction	Broker Name	Trade Book	Deal Type	Affiliate	Comments	Notional	Daily/Monthly volume
Expired																		
924435	8/22/2012																	Redacted
924428	8/22/2012																	
924187	8/15/2012																	
923794	8/6/2012																	
923758	8/3/2012																	
923743	8/3/2012																	
924438	8/22/2012																	
924432	8/22/2012																	
923738	8/3/2012																	
923705	8/2/2012																	
923524	7/26/2012																	
923520	7/26/2012																	
925162	9/28/2012																	
925155	9/28/2012																	
924941	9/20/2012																	
924914	9/19/2012																	
924505	8/24/2012																	
924502	8/24/2012																	
924437	8/22/2012																	
924429	8/22/2012																	
924370	8/20/2012																	
924189	8/15/2012																	
923740	8/3/2012																	
923734	8/3/2012																	
923706	8/2/2012																	
923523	7/26/2012																	
925165	9/28/2012																	
925164	9/28/2012																	
925163	9/28/2012																	
925156	9/28/2012																	
924507	8/24/2012																	
924504	8/24/2012																	
924433	8/22/2012																	
924188	8/15/2012																	
923739	8/3/2012																	
923737	8/3/2012																	
923707	8/2/2012																	
																	10,671,850	
Unexpired																		
924498	8/24/2012																	Redacted
924501	8/24/2012																	
924503	8/24/2012																	
924506	8/24/2012																	
924499	8/24/2012																	
924500	8/24/2012																	
924936	9/20/2012																	
924937	9/20/2012																	

SB_GT&S_0757950