STATE OF CALIFORNIA

ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

Tel. No. (415) 703-1691

May 24, 2004

Advice Letter 2471-E

Ms Anita Smith, Rate Analyst
Pacific Gas and Electric Company
77 Beale Street, Mail Code 10B
San Francisco, CA 94177

Reference: 2004 gas supply plan for the State of California Department of Water Resources tolling agreements

Dear Ms Smith:

Advice Letter 2471-E is effective April 1, 2004. A copy of the advice letter is included herewith for your records.

The fourth gas supply plan should be submitted August 2, 2004 for the October 2004 through March 2005 period.

A draft of the fourth gas supply plan to the Procurement Review Group and the California Department of Water Resources should be filed at least two weeks prior to August 2, 2004.

Sincerely,

Paul Clanon

Paul Clanon, Director
Energy Division

cc: Mr. Peter S. Garris, Deputy Director
California Energy Resources Scheduling
California Department of Water Resources
3310 El Camino Avenue, Suite 120
Sacramento, CA 95821

Pacific Gas and Electric Company

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February 2, 2003

Advice 2471-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: **Submission of the Third Gas Supply Plan for the California Department of Water Resources (CDWR) Tolling Agreements (April 1, 2004 through September 30, 2004)**

Pacific Gas and Electric Company (PG&E) hereby submits to the California Public Utilities Commission (Commission or CPUC) its third Gas Supply Plan (GSP-3), as required by Resolution E-3845, dated November 13, 2003. The resolution ordered PG&E to file its third Gas Supply Plan (GSP-3) no later than February 1, 2004 (or the next business day) for the period April 1, 2004 through September 30, 2004.

Purpose

Decision (D.) 02-12-069 and D.03-04-029 direct PG&E to consolidate fuel procurement strategies for the CDWR contracts and to submit them to CDWR and the Commission as a "Gas Supply Plan" on a semi-annual basis. PG&E submitted its first Gas Supply Plan (GSP-1) on March 25, 2003 for the period March 1, 2003 through August 31, 2003. The Commission adopted GSP-1 in Resolution E-3825, with modifications. PG&E submitted its second Gas Supply Plan (GSP-2) on August 15, 2003 for the period October 1, 2003 through March 31, 2004. The Commission adopted GSP-2 in Resolution E-3845, with modifications and ordered PG&E to submit GSP-3 no later than February 1, 2004 for the period April 1, 2004 through September 30, 2004.

In addition to the items included in GSP-2, Ordering Paragraph (O.P.) 5 of Resolution E-3845 directs PG&E to continue to provide detailed information concerning its analyses used in its decision making process and, in particular, to provide a thorough discussion concerning the analytical tools and resources used to assess future gas market price volatility in connection with its risk management strategies.

PG&E provides a confidential copy of GSP-3 in Attachment A to this Advice Letter. Attachments B through E are appendices to GSP-3. Confidential

Appendices A, B and E contain the Sample Calculations, CDWR's proposed Fuels Protocols and Discussion of Swaps vs. Options for Hedging, respectively. Appendix D contains Pipeline and Storage Tariffs.

Protest Period

Anyone wishing to protest this filing may do so by sending a letter by **February 22, 2004**, which is 20 days from the date of this filing. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. Protests should be mailed to:

IMC Branch Chief – Energy Division
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102
Facsimile: (415) 703-2200
E-mail: jjr@cpuc.ca.gov

Copies should also be mailed to the attention of the Director, Energy Division, Room 4005 and Jerry Royer, Energy Division, at the address shown above. It is also requested that a copy of the protest be sent via postal mail and facsimile to Pacific Gas and Electric Company on the same date it is mailed or delivered to the Commission at the address shown below.

Pacific Gas and Electric Company
Attention: Brian Cherry
Director, Regulatory Relations
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177
Facsimile: (415) 973-7226
E-mail: RxDd@pge.com

Effective Date

PG&E requests that this advice filing become effective on **April 1, 2004**, in accordance with Resolution E-3845.

Notice

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter excluding the confidential appendices is being sent electronically and via U.S. mail to parties shown on the attached list and the service list for Rulemaking (R.) 01-10-024. Non-market participants who are members of PG&E's Procurement Review Group and have signed appropriate Non-Disclosure Certificates will also receive the advice letter and accompanying confidential attachments by overnight mail.

The portions of this advice letter so marked Confidential Protected Material are in accordance with the May 20, 2003, Modified Protective Order in R.01-10-024 regarding Confidentiality of Pacific Gas and Electric Company (PG&E) Power Procurement Information. As required by that Order, reviewing representatives of Market Participating Parties will not be granted access to Protected Material, but will instead be limited to reviewing redacted versions of documents that contain Protected Material.

Address change requests should be directed to Sandra Ciach at (415) 973-7572. Advice letter filings can also be accessed electronically at:

http://www.pge.com/customer_services/business/tariffs/

Karen A. Tomcala/cr

Karen A. Tomcala
Vice President - Regulatory Relations

cc: Service List - R. 01-10-024

Attachments

Confidential Attachment A – Gas Supply Plan (GSP-3) for CDWR Tolling Agreements

Confidential Attachment B – GSP-3 Confidential Appendix A – Sample Calculations

Confidential Attachment C – GSP-3 Confidential Appendix B - CDWR Fuels Protocols

Attachment D – GSP-3 Appendix C - Pipeline and Storage Tariffs

Confidential Attachment E – Discussion of Swaps vs. Options for Hedging

Gas Supply Plan 3

for

CDWR Tolling Agreements

April 1, 2004

through

September 30, 2004

Pacific Gas and Electric Company

February 2, 2004

Contents

1. Executive Summary

On December 19, 2002, the California Public Utilities Commission (Commission) issued Decision (D.) 02-12-074 approving Pacific Gas and Electric Company's (PG&E) Short-Term Procurement Plan for 2003, with modifications. PG&E's Short-Term Plan discusses PG&E's current portfolio including the California Department of Water Resources (CDWR) contracts allocated to PG&E for operation and dispatch, residual open market positions, risk assessment, and proposed transactions and limits. On May 15, 2003 PG&E filed its 2004 Short Term Plan and the Commission subsequently approved this plan with modifications on December 18, 2003 (D.03-12-062). While the Short-Term Plans focus on the procurement of electricity, they also discuss the contribution of fuel (natural gas) to the value and price sensitivity of PG&E's open market position. Fuel management for the CDWR contracts is part of the strategy that is generally discussed in the Short-Term Plans.

On April 3, 2003 the Commission approved the Operating Agreement between CDWR and PG&E (D.03-04-029). On April 17 PG&E filed the fully executed Operating Agreement with the Commission through Advice Letter 2374-E. The Operating Agreement enables PG&E to perform the operational, dispatch, and administrative functions for CDWR's Long-Term Power Purchase Contracts as of April 17, 2003. Of the 21 CDWR contracts allocated to PG&E, 13, representing six different counterparties, have provisions for gas tolling. The Operating Agreement requires PG&E to submit a semi-annual fuel plan for these gas-tolling arrangements to CDWR and the Commission for review and approval.

PG&E submitted its first Gas Supply Plan for CDWR Tolling Agreements (March 25, 2003 through November 12, 2003) (GSP-1) on March 25, 2003 through Advice Letter 2359-E. The Commission approved the plan with modifications on July 10, 2003 (Resolution E-3825). PG&E submitted its GSP-2 (November 13, 2003 through March 31, 2004 on August 15, 2003 through Advice Letter 2410-E. That plan was approved by the Commission with modifications on November 13, 2003 (Res. E-3845). This document is PG&E's third semi-annual Gas Supply Plan (GSP-3), covering the period April 1, 2004 through September 30, 2004 (though PG&E has included data through March 2005 in this plan). PG&E finds that a time horizon of 1-year (two full seasons: summer and winter) provides a more complete picture of its gas supply and associated risk management strategies and plans and facilitates more proactive physical and financial transactions. The contents of this plan are consistent with the format used in the first two gas supply plans, but streamlined somewhat, as agreed to by CDWR. PG&E is scheduled to submit its next plan, GSP-4, on August 1, 2004.

Per the Operating Order, PG&E began managing these gas tolling agreements on January 1, 2003. Under the provisions of the Operating Order, and subsequent Operating Agreement, PG&E has worked with CDWR to review the Generator Fuel Plans and to establish work processes for fuel procurement, risk management and settlements for CDWR's contracts. In the twelve months PG&E has been managing these agreements it has facilitated more than 20 billion cubic feet (Bcf) of physical gas purchases through more than eighty transactions.

As discussed in its first two gas supply plans, PG&E has concluded that it is [redacted] In addition, PG&E concluded that it is cost effective and appropriate for PG&E in its role as CDWR's limited agent, [redacted] (The Fuel Supplier is responsible for purchasing gas and delivering it to the Fuel Manager, whereas the Fuel Manager is responsible for delivering gas to the plant and balancing gas supplies with consumption on a daily and a monthly basis.) PG&E, as CDWR's limited agent, is [redacted] to the extent that CDWR is willing to continue to make such elections for these contracts. PG&E is currently [redacted]

- The PPM Energy (formerly PacifiCorp) contract does not allow CDWR to become the Fuel Manager.
- The Coral contract will not become a tolling agreement until January 1, 2006.

PG&E has recommended [redacted] PG&E anticipates that it will continue [redacted]

PG&E's Electric Fuels Management (EFM) group within its Gas and Electric Supply organization continues to manage the fuel supply functions for the CDWR contracts. The group continues to have just three and a half full-time employees: a manager, a strategist (shared with electric), a trader and a scheduler. PG&E also continues to dedicate a position in its Power Settlements department to perform the settlement functions related to fuel procurement.

PG&E set a number of goals in GSP-2 that it has met. [redacted]

PG&E completed implementation of the Panorama system on August 6, 2003, more than 3 weeks ahead of schedule. The system has automated a number of manual processes including: trade capture, scheduling, gas management (balancing), mark-to-market reporting, confirmations, settlements, and management reporting. PG&E also completed documentation of its processes and procedures as part of the implementation. PG&E also implemented its risk management strategy as described in GSP-2.

PG&E has also set a number of goals for the term of GSP-3. In general, [redacted] This strategy is consistent with PG&E's experience managing these agreements since January 1, 2003. PG&E will implement the CDWR Fuels Protocols which were issued in completed form on December 8, 2003 (Appendix B). PG&E will conduct a Request for Offers (RFO) for firm gas storage service for the term April 1, 2004 through March 31, 2005, as directed by the Commission in Resolutions E-3845. PG&E will implement TeVaR in measuring the risk exposure of its electric portfolio. PG&E will execute its risk management strategy for CDWR gas as described in this plan. And finally, PG&E will update its process and procedures documentation to ensure it is up-to-date with the latest work procedures.

Today, the natural gas marketplace is marked by historically high prices and volatility. Gas prices are currently running around $1.00/MMBtu higher than this same time last year.

PG&E continues to build a portfolio of gas supplies and other services to provide a cost effective fuel supply for the CDWR contracts. PG&E is using CDWR's North American Energy Standards Board (NAESB) contracts, International Swaps and Derivative Association (ISDA) contracts and other contractual arrangements supported by CDWR's credit to build this portfolio. [redacted] PG&E proposes to issue a Request for Offers (RFO) for a 1-year firm storage contract for the term beginning April 1, 2004 in early 2004, as requested by the Commission in Resolutions E-3825 and E-3845. [redacted]

PG&E is monitoring the fuel price risk of the CDWR portfolio as part of PG&E's net open position. If needed, PG&E will use risk management tools on the electric or gas portfolios to reduce its exposure to price movements. [redacted]

PG&E is proud of its performance in managing the CDWR contracts in 2003. As described in this plan, PG&E will use its knowledge and expertise in energy procurement to operate a well-managed program for the benefit of its customers in 2004.

2. Introduction

On December 19, 2002 the Commission approved D.02-12-074, modifying PG&E's Short-Term Procurement Plan for 2003, which was filed on November 12, 2002. PG&E's Short-Term Plan discusses PG&E's current portfolio including CDWR contracts allocated to PG&E for operating and dispatch purposes, residual open market positions, risk assessment, and proposed transactions and limits. On May 15, 2003 PG&E filed its 2004 Short-Term Plan and the Commission subsequently approved this plan with modifications on December 18, 2003 (D.03-12-062). The Short-Term Plans focus on the procurement of electricity, but also discuss the contribution of fuel (natural gas) to the value and price sensitivity of PG&E's open market position. Fuel management for the CDWR contracts is a part of the strategy generally discussed in the Short-Term Plans.

On April 3, 2003 the Commission approved the Operating Agreement between CDWR and PG&E (D.03-04-029). On April 17 PG&E filed the fully executed Operating Agreement with the Commission through Advice Letter 2359-E. The Operating Agreement enables PG&E to perform the operational, dispatch, and administrative functions for CDWR's Long-Term Power Purchase Contracts as of April 17, 2003. Of the 21 CDWR contracts allocated to PG&E, 13, representing six different counterparties, have provisions for gas tolling. The Operating Agreement requires PG&E to submit a semi-annual fuel plan for these gas-tolling arrangements to CDWR and the Commission for review and approval.

PG&E submitted its first Gas Supply Plan for CDWR Tolling Agreements (March 25, 2003 through November 12, 2003) (GSP-1) on March 25, 2003 through Advice Letter 2359-E. That plan was approved by the Commission with modifications on July 10, 2003 (Resolution E-3825). PG&E submitted its GSP-2 (November 13, 2003 through March 31, 2004 on August 15, 2003 through Advice Letter 2410-E. That plan was also approved by the Commission with modifications on November 13, 2003 (Res. E-3845). This document represents PG&E's third semi-annual Gas Supply Plan (GSP-3), covering the period April 1, 2004 through September 30, 2004 (though PG&E included data through March 2005 in this plan). PG&E finds that a time horizon of 1-year (two full seasons: summer and winter) provides a more complete picture of its gas supply and risk management strategies and plans. The contents of this plan are consistent with the format used in the first two gas supply plans, but streamlined somewhat as agreed to by CDWR. PG&E is scheduled to submit its next plan, GSP-4, on August 1, 2004.

The CDWR contracts allocated to PG&E represent six counterparties including Calpine, CalPeak, Coral, GWF, PacifiCorp, and Wellhead. These contracts represent 1,983 MW of dispatchable contract capacity for 2004. Changes for 2004 include the expiration of the tolling portions of the Calpine 1 and Calpine 2 contracts (800 MW), the addition of 400 MW of must take energy under the Calpine 1 contract, and an increase of 100MW under the PPM Energy contract beginning July 1, 2004.

Each of the CDWR tolling agreements has a variety of options for CDWR including the options to supply fuel (tolling) and to manage deliveries to the plants. [redacted]

[redacted] The generators charge a variety of management fees and adders for these services that both compensate them for their efforts and protect them from the risk of changing market and supply conditions.

In its first two gas supply plans PG&E discussed two fundamental strategies that CDWR put forward in its suggested fuel plan format. The first strategy [redacted] PG&E, as CDWR's limited agent (PADLA – PG&E As CDWR's Limited Agent), [redacted]

As directed by the Commission in Resolution E-3825, PG&E will provide additional information regarding this plan to CDWR upon CDWR's request. Also, as directed by the Commission in Resolution E-3845, PG&E will make available: "all pertinent information (e.g., prices, quantities, etc.) and supporting documentation concerning transactions as well as analyses, forecasts and related data used for decision making purposes pursuant to its approved Gas Supply Plans to the Commission staff upon request".

PG&E submitted a draft of GSP-3 to its Procurement Review Group (PRG) and CDWR on December 31, 2003.[1] PG&E staff subsequently met with CDWR staff on January 22 to discuss the draft GSP-3. On January 27, CDWR sent advance comments and corrections to PG&E via email. PG&E has included a number of CDWR's comments into this version of the plan.

On December 17, 2003 PG&E presented its PRG with a summary of its strategy to hedge the value of pipeline capacity that CDWR receives under its tolling agreement with PPM Energy (see Section 5.f). Under the agreement, CDWR must flow this pipeline capacity full on a daily basis, and thus, the benefit of the capacity is independent of

[1] PG&E submitted GSP-3 to DWR on December 31, 2003 to allow DWR and PG&E's PRG 30 days to review the draft plan and then to meet the February 1, 2004 filing date established by the Commission in Resolution E-3845.

electric dispatch under the tolling agreement. PG&E proposed to financially hedge the value of this pipeline capacity and received general concurrence from its PRG on this strategy.

On January 22, PG&E met with its PRG to discuss GSP-3, its hedging strategy for CDWR gas and its upcoming RFO for gas storage. The session began with an overview of the changes from GSP-2 to GSP-3 and finished with a detailed discussion of PG&E's proposed hedging strategies. The PRG presentation was followed by a question and answer session. PG&E subsequently met with representatives of CDWR, who attended the PRG meeting and answered more questions and received feedback on the plan. Following the PRG meeting, PG&E sent an email to the PRG with meeting minutes and requested concurrence with the hedging strategies presented in the plan. PG&E subsequently received feedback from ORA on the firm storage RFO, which will be addressed in PG&E's RFO results filing. PG&E made several changes to this plan based on feedback from the PRG meeting.

3. CDWR Tolling Agreements Managed by PG&E

In its two previous gas supply plans, PADLA (PG&E As CDWR's Limited Agent) elected to supply fuel under its allocated CDWR tolling agreements. This section compares the generator fuel portfolios with PADLA's proposed fuel supply portfolio. PG&E will continue to estimate CDWR's cost under the generators' fuel plans as a benchmark for comparison to PADLA's portfolio.

a. For Contracts Where Generator Provides Gas

This section provides a brief description of the terms of the generator contracts and fuel plans and a forecast of the expected cost of fuel provided under these plans for the period April 1, 2004 through March 31, 2005, based on market conditions as of [redacted]

i. Period of Supply

The following chart shows the responsibility for fuel supply for each contract. The months shaded in black [redacted]

Pacific Gas and Electric Company
Figure 1
CDWR Contract Calendar

[redacted]

ii. Projected Monthly and Daily Gas Volume

Gas volumes for each of the CDWR contracts was forecasted using GenTrader, a software tool for power generation asset optimization (produced by Power Costs, Inc., of Norman Oklahoma). GenTrader optimally dispatches all PG&E resources, including the CDWR contracts, based on each resource's specific operating constraints, flexibility and market prices. The system enables PG&E to minimize generation costs and maximize the value of generation assets, including CDWR contracts, Utility Retained Generation (URG) and market purchases.

The key assumptions behind the forecast include:

- Current electric and gas forward curves
- Operating characteristics of utility retained generation including hydro and pumped storage
- Operating characteristics and contract terms of the CDWR contracts

Pacific Gas and Electric Company
Table 1a
Total Gas Volume by CDWR Contract
[redacted] Thousand MMBtus

Contract	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The volumes included in Tables 1, 2, and 3 were forecasted [redacted] Table 1a and 1b include the [redacted] Tables 2a and 2b include [redacted] and Tables 3a and 3b include [redacted]

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2 [redacted]

3 [redacted] is in-the-money, that is, the incremental cost of generation is lower than the current market price of power.

4 [redacted] take into account the [redacted]. Rather than modeling these resources [redacted]

[redacted] PG&E has run this model under a range of assumptions and has found that the

Pacific Gas and Electric Company Table 1b <u>Total</u> Gas Volume by CDWR Contract [redacted] Thousand MMBtus						
Contract	**Nov**	**Dec**	**Jan-05**	**Feb-05**	**Mar-05**	**Total**
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted] The same GenTrader run also produced daily volumes. Figure 2 shows a comparison of the average daily gas profiles of the whole CDWR portfolio by month. [redacted]

Pacific Gas and Electric Company Table 2a [redacted] Gas Volume by CDWR Contract [redacted] Thousand MMBtus								
Contract	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Total**
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

Pacific Gas and Electric Company
Table 2b
[redacted] Gas Volume by CDWR Contract
[redacted] Thousand MMBtus

Contract	Nov	Dec	Jan-05	Feb-05	Mar-05	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Please note that the gas volume for [redacted]

Pacific Gas and Electric Company
Table 3a
[redacted] Gas Volume by CDWR Contract
[redacted] Thousand MMBtus

Contract	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 3b
[redacted] Gas Volume by CDWR Contract
[redacted] Thousand MMBtus

Contract	Nov	Dec	Jan-05	Feb-05	Mar-05	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Figure 2

[redacted]

[redacted]

iii. Gas Pricing Mechanisms

Complete descriptions of the generator fuel cost mechanisms are included in Appendix A of PG&E's Gas Supply Plan 2[5] and are incorporated in this plan by reference since they have not changed. Below is a summary table that describes the approach of each mechanism by generator:

Pacific Gas and Electric Company
Table 4
Generator Fuel Cost Mechanisms

Generator	Pricing Mechanism Approach
CalPeak	PG&E Citygate: Monthly, daily, and intra-day indexes, adders for market risk (variable), LDC transport, fuel management and risk management
Calpine	PG&E Citygate: Monthly, daily and intra-day indexes, adders for market risk (fixed) and LDC transport
Coral	(no fuel option until 2006)
GWF	PG&E Citygate: Monthly and daily indexes, adders for market risk (fixed daily, variable monthly), LDC transport, fuel management, taxes & fees
PPM Energy (PacifiCorp)	Alberta (AECO 'C'): Monthly & daily indexes (C$), adders for pipeline variable charges and shrinkage, and heat rate (based on dispatch levels)
Wellhead	PG&E Citygate: Monthly, daily and intra-day indexes, adders for fuel management, risk management, LDC transport, mainline extension, taxes & fees

iv. Projected Monthly and Seasonal Gas Costs

Tables 5a and 5b provide the results of applying the gas pricing mechanism in each contract and Generator Fuel Plan to the volumes forecasted with [redacted] PG&E calculated the cost through the end of [redacted] (see Appendix A, page A-1 for a sample calculation). The estimated six-month total gas cost under this scenario is [redacted] the gas tolling products in CDWR's Calpine 1 and Calpine 2 contracts expired in December 2003.

[5] Gas Supply Plan 2 for DWR Tolling Agreements, November 13, 2003 through March 31, 2004, Pacific Gas and Electric Company, August 15, 2003 (Supplemental Filing November 24, 2003), Appendix A.

Pacific Gas and Electric Company
Table 5a
[redacted]
(thousand $)

Contract	Apr	May	Jun	Jul	Aug	Sep	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henriet.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 5b
[redacted]
(thousand $)

Contract	Oct	Nov	Dec	Jan-05	Feb-05	Mar-05	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

b. For Contracts Where PADLA Provides Gas

This section provides a [redacted] Again, the forecast is for the period April 1, 2004 through March 31, 2005, and is based on market conditions as of [redacted] This plan assumes that PG&E [redacted] The remainder of this plan is devoted to presenting the details of [redacted].

i. Period of Supply

In this section, PG&E presents the [redacted]

ii. Projected Monthly and Daily Gas Volume

The projected monthly and daily gas volumes [redacted] listed in Tables 1, 2 and 3. Since the [redacted] The daily profile chart in Figure 2 also applies to both cases.

iii. Projected Monthly and Seasonal Gas Costs

Tables 6a and 6b are the result of applying PG&E's [redacted] The estimated six-month total gas cost [redacted]

[6] Note: this cost does not include PG&E's administrative cost for procuring fuel for the CDWR contracts. It also does not include the cost firm gas storage, which is discussed in Section 4.e.

Pacific Gas and Electric Company
Table 6a
Monthly Fuel Cost by CDWR Contract [redacted]
(thousand $)

Contract	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanf./Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]
PPM contract increases from 200 MW to 300 MW on July 1, 2004 (and the associated pipeline capacity increases from 34,560 MMBtu/day to 51,840 MMBtu/day).

[7]The availability of this capacity was confirmed by a letter agreement between CDWR and PPM Energy on November 10, 2003. [redacted]

Pacific Gas and Electric Company
Table 6b
Monthly Fuel Cost by CDWR Contract [redacted]
(thousand $)

Contract	Oct	Nov	Dec	Jan-05	Feb-05	Mar-05	Total
Calpine 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Calpine 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Hanford/Henrietta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
GWF Tracy (III)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak Vaca Dixon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Gates	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Panoche	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead Fresno	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

4. Gas Supply Strategies Where PADLA Supplies Gas

This section describes, in detail, the portfolio [redacted]

a. Six-Month Goals

PG&E has established the following goals for the term of GSP-3:

- Conduct a complete RFO process for a 1-year firm gas storage product with the term April 1, 2004 through March 31, 2005.
- Update the physical position of the CDWR portfolio including mark-to-market at the end of each trading day.
- Capture the value of the firm pipeline capacity embedded in the PPM Energy contract whenever the PPM generating facility at Klamath Falls is not dispatched.
- Implement CDWR Fuels Protocols (see Appendix B for the first release of the completed protocols).

b. Recommended Gas Supply Portfolio

i. Contractual Periods

[redacted]

[redacted]

In addition, it is important to note that most of the tolling agreements allow CDWR to become the Fuel Supplier, the Fuel Manager, or both. The Fuel Supplier purchases gas and delivers it to the Fuel Manager. [redacted] The Fuel Manager schedules deliveries to the plant and manages monthly and daily balancing. [redacted]

[redacted]

PADLA is receiving the benefits of being Fuel Manager[8] for CalPeak, and will take over full Fuel Manager responsibilities in Month (as ordered by the Commission in Resolution E-3825) when CDWR renews its fuel supply election [redacted]

> **Fuel Supplier:** Purchases gas and delivers it to the Fuel Manager at the PG&E Citygate or a pre-determined location.
>
> **Fuel Manager:** Receives gas from the Fuel Supplier and manages daily and monthly deliveries from the Citygate (or other point) to the plant.

Based on these benefits, PADLA intends to take over the following roles:

Pacific Gas and Electric Company
Table 7
PADLA Role Elections

Generator	Fuel Supplier	Fuel Manager
Calpine 3 & 4	[redacted]	[redacted]
PacifiCorp	[redacted]	[redacted]
GWF	[redacted]	[redacted]
Wellhead	[redacted]	[redacted]
CalPeak	Yes	Yes (receive the benefits)
Coral	[redacted]	[redacted]

PG&E will build its supply portfolio for the term of GSP-3 to match the generation forecast in Section 3.a.ii for the term of GSP-3.

Pacific Gas and Electric Company
Table 8
PADLA Supply Portfolio

Supplier	Term	Volume	Location	Pricing
Calpine 3 & 4	[redacted]	[redacted]	[redacted]	[redacted]
PPM Energy (PacifiCorp)	[redacted]	[redacted]	[redacted]	[redacted]
Wellhead	[redacted]	[redacted]	[redacted]	[redacted]
CalPeak	[redacted]	[redacted]	[redacted]	[redacted]
GWF	[redacted]	[redacted]	[redacted]	[redacted]
Balancing	[redacted]	[redacted]	[redacted]	[redacted]

[8] By "receiving the benefits of being Fuel Manager" PADLA retains balancing rights of the Fuel Manager without physically nominating gas to the generating facility on a daily basis.

[redacted]

ii. Approved Suppliers

The list of gas suppliers approved by CDWR for use by PG&E, SCE and SDG&E is now part of CDWR's Fuel Protocols (see Appendix B). PG&E will also work with CDWR to add additional approved suppliers to the list as necessary.

PG&E will work closely with CDWR to ensure that CDWR remains within its credit limits and, if necessary, will request that CDWR increase credit limits.

PG&E will use CDWR-approved counterparties for financial trading per Resolution E-3825.

In addition, CDWR is using NYMEX OTC clearing services to reduce counter-party credit risk and to reduce collateral requirements.

iii. Supply Basin Mix

PG&E has no particular supply basin preference. Philosophically, it is better to build basin diversity into the portfolio; however, the same diversity benefits can be achieved by choosing particular suppliers (based on their supply portfolios) for gas purchased at the California Border or PG&E Citygate.

[redacted]

[redacted]

Second, based on these results, PG&E selects the most cost-effective supply source.

iv. Interstate Pipeline Mix

As stated above, PADLA's pipeline choices will be driven by market conditions at the PG&E Citygate, CA border and in the basins. The results of PG&E's pricing analysis dictate the choice of pipeline path.

The first consideration in evaluating interstate pipeline capacity is the [redacted]

PG&E reviewed the market value of interstate and intrastate capacity for the term of this plan. The results show that the market prices [redacted] (see Appendix A, page A-3 for a sample calculation) [redacted]

Pacific Gas and Electric Company
Table 9
[redacted]

Path	Pipelines	Basis Differential (Sep - Mar)	Pipeline Variable Charges, Fees & Fuel	Implied Reservation	Implied Reservation % of Full Tariff
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes: All prices and costs are US $/MMBtu as of
Rates on CGT Baja and Redwood are MFV

That said, the PPM Energy contract includes 34,560 MMBtu/day of firm capacity on TransCanada Alberta, TransCanada British Columbia (BC) and Gas Transmission Northwest (GTN) (the full reservation charges for each pipeline are included in the fixed capacity charge). If PPM Energy supplies fuel under the contract, it has the option to receive the benefit of the pipeline capacity when the plant is not operating. If CDWR supplies fuel, it has the option to receive the benefit of the capacity when the plant is not operating (this is the main benefit of supplying fuel under this contract). [redacted].

Note that PPM Energy is the shipper of record on GTN and will not release the capacity to CDWR, per CDWR's letter agreement with PPM Energy. PPM will deliver CDWR gas to the plant when it is dispatched or to CDWR at Malin when the plant is not dispatched.

In order for PG&E to operationally capture the benefits of this capacity as CDWR's limited agent, PG&E needs to be able to execute transactions with its upstream affiliate, Gas Transmission Northwest Corporation. In Resolution 3825-E, the Commission stated that PG&E must obtain a waiver from the Commission through a petition to modify D.02-10-062 in order to use GTN services on DWR's behalf. PG&E filed such a petition on December 4, 2003 and looks forward to Commission approval.

v. Pricing Mechanisms

There are several standard pricing mechanisms that are accepted practice in the gas industry and defined by the NAESB. PG&E adheres to these practices. The choice of a particular pricing method is based on the risk position of PG&E's electric portfolio, the nature of the load that the gas is supplying, and the amount of credit consumed by the method.

PADLA intends to use the following pricing methods for the majority of gas purchases. Other methods may be added as market conditions change. PADLA may use a combination of these methods to buy gas transportation at a floating price.

Pacific Gas and Electric Company Table 10 Pricing Methods	
Pricing Method	**Description**
Intra-day Fixed	Fixed price for nominations during cycles 2 - 4
Daily Fixed	Fixed price for gas the following day (cycle 1)
Monthly Fixed	Fixed price for a fixed daily volume for a calendar month
Daily Index	Floating price for a single day, published on the day of flow by Gas Daily (or Monday for Sat, Sun & Mon)
Monthly Index	Floating price for a fixed daily volume for a calendar month, published after the close of the NYMEX contract for the month of flow by NGI

vi. CDWR's Fuels Protocol

CDWR issued the first completed version of its Fuels Protocols on December 8, 2003. They are intended to be implemented immediately. The protocols are included in this plan as Appendix B.

In the resolution approving PG&E's GSP-1 (Res. E-3825), the Commission directed PG&E to work with CDWR and the other utilities to develop "a proposal showing how unused pipeline or storage capacity can be made available to the other utilities in connection with their CDWR contract related duties or brokered." Since this process will involve all three utilities and CDWR, PG&E proposes to add it to CDWR's Fuel Protocols. In the resolution approving PG&E's GSP-2 (Res. E-3845), the Commission stated:

> "In response, PG&E suggests that such a proposal is better suited for DWR's Fuels Protocols because it would involve the other utilities as well as DWR. We agree with PG&E's premise that coordination with the other utilities is necessary to implement such a proposal and, thus, find the utility's response to this issue satisfactory. We will expect PG&E to actively pursue these matters in the course of their discussions with DWR concerning the Fuels Protocols or other appropriate forum." (Res. E-3845, p. 12)

[redacted]

c. Recommended Interstate/Canadian Pipeline Plan

As stated above, PADLA's pipeline choices will be driven by market conditions at the PG&E Citygate, CA border and in the basins. The results of PG&E's pricing analysis dictate the choice of pipeline path. [redacted]

d. Recommended Intrastate/Distribution Pipeline Plan

i. Intrastate Pipeline Capacity

As stated above, PADLA's pipeline choices will be driven by market conditions at the PG&E Citygate, California border and in the basins. The results of PG&E's pricing analysis dictate the choice of pipeline path. [redacted]

ii. Distribution Pipeline Capacity

Each of the facilities under contract with CDWR and allocated to PG&E has existing transportation contracts with their local distribution companies (LDCs). The generators will continue to contract for distribution capacity with their LDC.

e. Recommended Storage Plan

Gas storage has two main benefits: it enables PADLA to take advantage of seasonal fluctuations in gas prices and it enhances daily and monthly balancing in both summer and winter. [redacted]

The other storage-like product that will be used for balancing is parking and lending services on GTN[9] (for the PPM Energy contract), Transwestern (if used), and PG&E's Golden Gate Market Center[10]. As limited agent for CDWR, PG&E will

[9] PG&E must obtain a waiver from the Commission through a petition to modify D.02-10-062 in order to use GTN services on DWR's behalf. PG&E filed such a petition on December 4, 2003 (PETITION OF PACIFIC GAS AND ELECTRIC COMPANY TO MODIFY DECISION 02-10-062 FOR WAIVER FOR GAS TRANSMISSION NORTHWEST CORPORATION SERVICES IN CONNECTION WITH DEPARTMENT OF WATER RESOURCES PPM ENERGY CONTRACT).

[10] See Section 7.f for specific rules governing such transactions.

work with CDWR to establish accounts with each of these service providers where CDWR does not already have an account and then use them as supply arrangements as market conditions dictate.

[redacted]

PG&E will provide a more complete valuation of storage with the filing of its Storage RFO results, discussed below. Note that storage provides reliability and price protection benefits in both summer and winter.

Pacific Gas and Electric Company
Table 11
Storage Value Analysis Results (current storage season)

	$	$/MMBtu
[redacted]	$65,873	$0.06
[redacted]	($998,538)	($0.93)
[redacted]	($932,665)	($0.87)

Notes: [redacted]

In Resolution E-3825 the Commission directed PG&E to include in this plan a "proposed plan for obtaining gas storage capacity as of April 1, 2004 as well as minimum storage targets for May 31, 2004, including estimated storage related costs." PADLA proposes to issue a request for offers (RFO) for firm storage capacity for the term April 1, 2004 through March 31, 2005 to all storage providers in California by February 2, 2004. PG&E will adhere to the following conditions in conducting this RFO as directed by the Commission in E-3845:

- Submit the proposed RFO package, evaluation and selection criteria to PG&E's PRG prior to its issuance;
- Issue the RFO to all in-state storage providers with prospective bidders given at least 21 calendar days to provide responses;
- PG&E's EFM group will administer the RFO and hold all bids in confidence until the results are presented to CDWR, the Director of the Commission's Energy Division and PG&E's PRG;
- PG&E will notify all prospective bidders that all received bids will be binding.
- The results of the RFO, PG&E's RFO evaluation, and PG&E's recommendation will be provided to CDWR, the Director of the

Commission's Energy Division and PG&E's PRG prior to consideration of the contract by CDWR.

[redacted]

Pacific Gas and Electric Company Table 12 PADLA Firm Storage Proposal			
Function	**Term**	**Firm Capacity**	**As Available Capacity**
Product RFO-1			
Inventory	Apr 1, 2004 to Mar 31, 2005	1,000,000 MMBtu	
Injection	Apr 1, 2004 to Oct 31, 2004	20,000 MMBtu/day	
Withdrawal	Apr 1, 2004 to Jun 30, 2004		10,000 MMBtu/day
Withdrawal	Jul 1, 2004 to Oct 31, 2004	25,000 MMBtu/day	
Withdrawal	Nov 1, 2004 to Mar 31, 2005	10,000 MMBtu/day	
Product RFO-2			
Inventory	Apr 1, 2004 to Mar 31, 2005	750,000 MMBtu	
Injection	Apr 1, 2004 to Oct 31, 2004	15,000 MMBtu/day	
Withdrawal	Apr 1, 2004 to Jun 30, 2004		10,000 MMBtu/day
Withdrawal	Jul 1, 2004 to Oct 31, 2004	25,000 MMBtu/day	
Withdrawal	Nov 1, 2004 to Mar 31, 2005	10,000 MMBtu/day	
Product RFO-3			
Inventory	Apr 1, 2004 to Mar 31, 2005	500,000 MMBtu	
Injection	Apr 1, 2004 to Oct 31, 2004	10,000 MMBtu/day	
Withdrawal	Apr 1, 2004 to Jun 30, 2004		10,000 MMBtu/day
Withdrawal	Jul 1, 2004 to Oct 31, 2004	25,000 MMBtu/day	
Withdrawal	Nov 1, 2004 to Mar 31, 2005	10,000 MMBtu/day	

[redacted]

[redacted]

Bids will be evaluated based on the [redacted] As stated above, the results of the RFO, PG&E's RFO evaluation, and PG&E's recommendation will be provided to CDWR, the Director of the Commission's Energy Division and PG&E's PRG. Upon approval by the Commission of the RFO, PG&E will submit the appropriate contracts, with its recommendation as to whether CDWR should enter into such contracts, to CDWR.

5. Recommended Gas Price Risk Management Strategies

The gas price risk management strategy associated with the dispatchable CDWR contracts is part of the overall PG&E electric and electric fuels portfolio management program. In its approved 2004 Procurement Plan, PG&E describes [redacted] Starting in 2004 PG&E will measure the exposure of its electric portfolio against a customer risk tolerance limit using a to-expiration value-at-risk (TeVaR) measure.[12] The approved customer risk tolerance of the entire portfolio is [redacted]

Price risk occurs when there are open positions (long or short), created by a mismatch between load obligations and contracted or owned supplies. To PG&E, the CDWR dispatchable contracts on their own represent a long spark spread[13] position. Simplistically, the contracts can be viewed as a long position in electricity and a short position in fuel when the tolling arrangement is "in-the-money."[14]

In general, PG&E assesses its overall portfolio risk weekly as follows:

- Measure portfolio TeVaR.
- Measure open position by subperiod (peak, off-peak) in average MW.
- Determine the nature of the open position (long vs. short, obligation vs. economic, electric vs. gas).
- Formulate strategies to flatten the open position (electric and gas), if necessary.
- Determine associated gas hedging requirements related to proposed electric transactions.
- Strategies are not associated with DWR gas until the formation of execution strategies (in other words, strategies are based on portfolio risk).

a. Risk Assessment Over Next Twelve Months

For the six-month term of this plan and for the six months following, PG&E is focused on assessing when it is appropriate to [redacted]

[11] Pacific Gas and Electric Company's 2004 Short-term Procurement Plan, Chapter 3.
[12] Ibid, p 3-2.
[13] The difference between the market price for power and the equivalent cost of power generated with natural gas at the current market price.
[14] A contract where the forward market price for power is greater than the forward cost of generation.

[redacted]

[redacted]

Quantifying Dispatched Gas Volumes

The first consideration in quantifying expected gas volumes is to understand the terms and conditions regarding the dispatchability of specific CDWR power contracts. This takes into account defined contractual and physical constraints. [redacted]

[redacted]

[15] Economic surplus is when a contract is "in-the-money," but contributes to a long market position because the output exceeds current obligations.

[redacted]

[redacted]

b. Risk Management Goals

PG&E has established the following risk management goals for the term of GSP-3:

- Evaluate the risk position of PG&E's electric portfolio and the contribution of CDWR's tolling agreements to that position on a weekly basis.
- Measure the portfolio TeVaR as described in PG&E's 2004 Procurement Plan on a weekly basis.
- Review all risk management procedures and controls to ensure that they reflect implementation of the Panorama gas management system.

[redacted]

- Issue a request for offers (RFO) for a 1-year firm storage product with a term April 1, 2004 through March 31, 2005 [redacted]

c. CDWR Prior Review and Consent

To date, both of CDWR's counterparties for financial transactions have required CDWR to consent to and execute each transaction. As long as these counterparties maintain this requirement, PG&E will continue to submit all financial transactions to

CDWR for review, approval and execution, as described in CDWR's Fuels Protocols (Appendix B).

d. Risk Management Budget

PG&E's hedging activities support the management of its entire electric portfolio as described in its Short-Term Procurement Plans. The hedging strategies and tactics described in this section are only for management of the risk contribution by the CDWR tolling agreements to PG&E's entire electric portfolio. PG&E's forecast of the amount needed for hedging activities over the period covered by the GSP-3 will change through time. The deviations between actual conditions and forecast planning conditions will affect the open position and where PG&E stands in relation to its authorized portfolio risk tolerance level at any given point in time. Consequently, although PG&E can provide CDWR with a dollar amount for hedging on a planning basis, the actual amounts needed will vary as conditions change.

Hedging expenses have two main sources, broker fees from NYMEX OTC Clearing and option premiums. Hedging expenses do not include collateral to provide security to the counterparty for a transaction or any financial or physical settlement loss (because either would be offset by a corresponding physical gain).

The following tables list [redacted]

Pacific Gas and Electric Company
Table 13a
Estimated CDWR Gas Requirements (Planning Basis Only)

	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 13b
Estimated CDWR Gas Requirements (Planning Basis Only)

	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 14a

[redacted]

Hedging Products	Estimated Fees	Estimated Premiums
[redacted]		
[redacted]		

Assumptions: [redacted]

[redacted]

Pacific Gas and Electric Company
Table 14 b

[redacted]

Hedging Products	Estimated Fees	Estimated Premiums
[redacted]		
[redacted]		

e. [redacted]

[redacted]

Pacific Gas and Electric Company
Figure 3
[redacted]
April 2004 through March 2005

[redacted]

[redacted]

[redacted]

[16] Please see Appendix D, page D-4 for more discussion of the target hedge percentages.

[redacted]

Pacific Gas and Electric Company
Table 15a
[redacted]X

[redacted]	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Total
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 15b
[redacted]

[redacted]	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Total
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Assumptions: [redacted]

[redacted]

[redacted]

f. Hedging Strategy for Firm Pipeline Capacity

[redacted]

[redacted]

[redacted]

Pacific Gas and Electric Company
Table 16

[redacted]

g. Recommended Use of Risk Management Products

Table 17 provides a list of financial risk management tools[17] [redacted] for the CDWR portfolio during the term of GSP-3. As PG&E and CDWR gain more experience managing this portfolio, PG&E anticipates that it may add more financial products to future gas supply plans for Commission and CDWR approval.

[17] Storage, which is a physical tool for managing gas price risk in winter, is covered in Section 4.e.

Pacific Gas and Electric Company Table 17 Risk Management Tools		
Tools	**Physical Product Use**	**Financial Product Use**
Fixed Price[18] (daily, remaining mo., monthly)	Buy forward gas at a fixed price	None
Index/Swap for Fixed[19]	Buy forward at monthly index	Swap floating price for fixed
Index/Futures+Basis[20]	Buy forward at monthly index	Long futures & Long basis swap
Swing Swap[21]	Buy forward at monthly index	Swap monthly floating price for daily floating price
Index/Buy Call Option[22]	Buy forward at monthly index	Buy call option
Index/Buy Collar[23]	Buy forward at monthly index	Buy collar (sell put, buy call)
Call Spread[24]	Buy forward at monthly index	Buy call option, sell call option at a higher strike price

Table 18 lists the most common hedging objectives PG&E anticipates using during the term of GSP-3 and ranks its choice of tools to achieve these objectives. The locations listed in the objectives [redacted]

Pacific Gas and Electric Company Table 18 [redacted]		
Objectives	**Physical/Financial Tools**	**Notes**
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[18] Referred to as "Gas Purchases" in Authorized Procurement Products table in D.03-12-062. PG&E, like SCE, needs the ability to transact daily gas products.
[19] Referred to as "Financial Swap" in Authorized Procurement Products table in D.03-12-062.
[20] Ibid.
[21] Ibid.
[22] Referred to as "Financial call (or put) option" in Authorized Procurement Products table in D.03-12-062.
[23] Ibid.
[24] Ibid.

i. Illustrative Examples

Fixed Price

In order to streamline this plan, the illustrative examples of hedge transactions provided in GSP-2 are not repeated here but are incorporated by reference, since they will not change.[25, 26]

h. Discussion of Volatility

In the resolution approving PG&E's second gas supply plan (Resolution 2845-E) the CPUC ordered PG&E to include a detailed discussion of volatility in its next gas supply plan. Specifically, the order stated: "the utility shall provide a thorough discussion concerning the analytical tools and resources it uses to assess future gas market price volatility in connection with its risk management strategies".[27] The following section provides a description of the principles underlying PG&E's use of volatility, the processes PG&E uses for deriving and publishing volatilities, and how PG&E uses volatility in its risk management strategies. This discussion only applies to PG&E's electric procurement function (including fuel).

i. Principles Underlying PG&E's Use of Volatility

[redacted]

[redacted]

[25] PG&E proposed this change to CDWR and received CDWR's concurrence.
[26] Gas Supply Plan 2 for DWR Tolling Agreements, November 13, 2003 through March 31, 2004, Pacific Gas and Electric Company, August 15, 2003 (Supplemental Filing November 24, 2003), pp. 32-35.

[27] Resolution 3845-E, Ordering Paragraph 4.

[redacted]

PG&E maintains organizational separation between trading departments and departments who gather and process market data for volatility and prices. This separation is critical to maintaining proper controls and oversight of the trading function. Such separation is a best practice in the energy industry. PG&E's Utility Risk Management Department (URMD) is responsible for gathering market data for volatility, processing that data, and publishing volatility curves (and forward price curves) for use by the trading organizations in the Utility. URMD reports to the Utility's Chief Financial Officer whereas the utility's three trading organizations report to operating senior officers.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]				
[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]

[redacted]				
[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

6. Gas Operations Plan

In order to streamline this plan, the Gas Operations Plan provided in GSP-2 is not repeated here but is incorporated by reference from GSP-2[28]. Should the substance of PG&E's operations change in the future, PG&E will include a revised Gas Operations Plan in future Gas Supply Plans.

One subject discussed in the Gas Operations section of GSP-2 has changed: implementation of the Panorama Gas Management system. PG&E completed implementation of the Panorama system on August 6, 2003, more than 3 weeks ahead of schedule. The system has automated a number of manual processes for both physical and financial gas including: trade capture, scheduling, gas management (balancing), mark-to-market reporting, confirmations, settlement, and management reporting. PG&E also completed documentation of its processes and procedures as part of the implementation. This documentation includes management controls and points of process reconciliation. The Panorama implementation and documentation has been reviewed and certified by an outside consulting firm.

[28] Gas Supply Plan 2 for DWR Tolling Agreements, November 13, 2003 through March 31, 2004, Pacific Gas and Electric Company, August 15, 2003 (Supplemental Filing November 24, 2003), pp. 36-41.

7. Market Assessment for the Next Twelve Months

This section provides the background information needed to produce this plan and to assess the costs and risks of the strategies.

a. Gas Price Forecasts

Rather than use a forecast of gas prices based on econometric models, PG&E prefers to use forward price quotes from physical and financial markets. The following forward gas prices are based on a combination of physical and financial market quotes from market makers. These prices reflect market conditions as of the end of the trading day, [redacted] The prices listed here were used for all of the analysis presented in this plan.

i. Basin and Border Prices

Pacific Gas and Electric Company
Table 19a
Basin Forward Prices
All prices are in U.S. $/MMBtu

Basin	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04
Alberta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Rocky Mountain	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Permian	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
San Juan	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 19b
Basin Forward Prices
All prices are in U.S. $/MMBtu

Basin	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05
Alberta	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Rocky Mountain	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Permian	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
San Juan	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company
Table 20a
Border Forward Prices
All prices are in U.S. $/MMBtu

Border	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04
PG&E Citygate	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Topock	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Malin	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sumas (BC)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Pacific Gas and Electric Company Table 20b Border Forward Prices All prices are in U.S. $/MMBtu					
Border	**Nov-04**	**Dec-04**	**Jan-05**	**Feb-05**	**Mar-05**
PG&E Citygate	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Topock	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Malin	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sumas (BC)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

ii. Interstate and Canadian Pipeline Rates

Tables 21 and 22 summarize the rates charged by interstate and Canadian pipelines relevant to the California market. All rates are current as of January 1, 2004. They include all surcharges but do not include in-kind shrinkage. The illustrative rates were calculated using a 100 percent load factor. Please see Appendix C for a detailed summary of these rates.

Pacific Gas and Electric Company Table 21 Pipeline Rates All rates are in U.S. $/MMBtu.			
Pipeline	**Rate Schedule**	**Path**	**Illustrative Rate***
El Paso	FT-1	San Juan to CA	$0.351
		Permian to CA	$0.387
	IT-1	San Juan to CA	$0.332
		Permian to CA	$0.350
Kern River	KRF-1	Standard Firm	$0.629
	KRI-1	Interruptible	$0.626

Pacific Gas and Electric Company Table 22 More Pipeline Rates All rates are in U.S. $/MMBtu.			
Pipeline	**Rate Schedule**	**Path**	**Illustrative Rate***
GTNW	FTS-1	Kingsgate to Malin	$0.271
		Stanfield to Malin	$0.165
	LFS-1	Kingsgate to Malin	$0.271
		Stanfield to Malin	$0.165
	ITS-1	Kingsgate to Malin	$0.270
		Stanfield to Malin	$0.163
TransCanada	FT-D	Alberta: AECO 'C' to A/BC	$0.133
	IT-D	Alberta: AECO 'C' to A/BC	$0.147
	FS-1	BC: A/BC to Kingsgate	$0.052
	IS-1	BC: A/BC to Kingsgate	$0.058
Transwestern	FTS-1	San Juan to CA	$0.390
		East of Thoreau to CA	$0.375
	ITS-1	San Juan to CA	$0.388
		East of Thoreau to CA	$0.374
Northwest	TF-1	Various	$0.330
	TF-2	From storage, various	$0.308
	TI-1	Various, interruptible	$0.314

iii. Intrastate Pipeline Rates

Table 23 summarizes the rates charged by PG&E's intrastate pipeline, California Gas Transmission (CGT). The rates reflect a 1-year extension of the Gas Accord. The illustrative rates were calculated using a 100 percent load factor. Please see Appendix C for a detailed summary of these rates.

Pacific Gas and Electric Company
Table 23
Intrastate Pipeline Rates
All rates are in U.S. $/MMBtu. Shrinkage not included.

Pipeline	Rate Schedule	Path	Illustrative Rate*
PG&E (CGT)	G-AFT	Redwood to On-System	$0.300
	(Annual Firm)	Baja to On-System	$0.192
		Silverado to On-System	$0.115
		Mission to On-System	$0.115
	G-SFT	Redwood to On-System	$0.360
	(Seasonal Firm)	Baja to On-System	$0.230
		Silverado to On-System	$0.138
		Mission to On-System	$0.138
	G-NFT	Redwood to On-System	$0.360
	(Negotiated Firm)	Baja to On-System	$0.230
		Silverado to On-System	$0.138
		Mission to On-System	$0.138
	G-AA	Redwood to On-System	$0.360
	(As Available)	Baja to On-System	$0.230
		Silverado to On-System	$0.138
		Mission to On-System	zero
	G-NAA	Redwood to On-System	$0.432
	(Negotiated As Avail.)	Baja to On-System	$0.276
		Silverado to On-System	$0.166
		Mission to On-System	zero

iv. Distribution Rates

Table 24 is a summary of rates on the PG&E and SoCalGas distribution systems. All rates are current as of January 1, 2004. Note, rates are volumetric and neither company requires in-kind shrinkage for transmission service. The SoCalGas rates include surcharges. Please see Appendix C for a detailed summary of these rates.

Pacific Gas and Electric Company Table 24 Distribution Rates All rates are in U.S. $/MMBtu			
Utility	**Rate Schedule**	**Path**	**Rate**
PG&E	G-EG	PG&E Citygate to Plant	$0.2644
	G-SUR	Franchise Fee Surcharge	$0.0917
SoCal	GT-F	SoCal Receipt Pts to Plant	$0.465
	GT-I	SoCal Receipt Pts to Plant	$0.465

v. Storage Rates

Tables 25 and 26 summarize rates on the PG&E, SoCalGas, Lodi Gas Storage and Wild Goose storage systems. All rates are current as of January 1, 2004. Note, rates are broken into three subcomponents: inventory, injection and withdrawal. The illustrative rate is calculated using a 100 percent load factor for one complete cycle: injection at a fixed daily rate from April 1 through October 31 and withdrawal at a fixed daily rate from November 1 through March 31. Illustrative rates do not include in-kind shrinkage. Please see Appendix C for a detailed summary of these rates.

Pacific Gas and Electric Company Table 25 Storage Rates			
Provider	**Rate Schedule**	**Path**	**Illustrative Rate* for 1 Cycle**
PG&E	G-FS	Inventory ($/MMBtu/year)	$0.8444
		Injection	$0.0437
		Withdrawal ($/MMBtu/year)	$0.0738
		Cycle	**$0.9619**
	G-NFS	Inventory ($/MMBtu/year)	$1.2941
		Injection	$0.3016
		Withdrawal ($/MMBtu/year)	$0.1844
		Cycle	**$1.7801**
	G-NAS	Injection	$0.3016
		Withdrawal	$0.1844

* The illustrative rate is calculated using a 100 percent load factor for one complete cycle: injection at a fixed daily rate from April 1 through October 31 and withdrawal at a fixed daily rate from November 1, through March 31. Illustrative rates do not include in-kind shrinkage.

Pacific Gas and Electric Company
Table 26
More Storage Rates

Provider	Rate Schedule	Path	Illustrative Rate* for 1 Cycle
SoCalGas	G-LFS	Inventory ($/MMBtu/year)	$0.2140
		Injection	$0.0158
		Withdrawal ($/MMBtu/year)	$0.0944
		Expansion Withdrawal	$0.1490
		Transmission to Storage	$0.5670
		Cycle*	**$0.8912**
		Expansion Cycle*	**$0.9458**
	G-TBS	Inventory ($/MMBtu/year)	$0.0000
		Injection	$0.0127
		Withdrawal ($/MMBtu/year)	$0.0177
		Combined Inventory/Inject./Withd.	$0.3526
		Transmission to Storage	$0.5670
		Cycle*	**$0.9500**
Lodi Gas Storage	FSS	Combined Inventory, Injection & Withdrawal	$500**
	ISS	Combined Inventory, Injection & Withdrawal	$500**
Wild Goose	BLS	Combined Inventory, Injection & Withdrawal	$500**
	STS	Combined Inventory, Injection & Withdrawal	$500**

* The illustrative rate is calculated using a 100 percent load factor for one complete cycle: injection at a fixed daily rate from April 1 through October 31 and withdrawal at a fixed daily rate from November 1 through March 31. Illustrative rates do not include in-kind shrinkage.

** All sub-function rates are negotiable to a combined total, reservation and/or usage, of $500/MMBtu.

b. Gas Supply Outlook

i. Production Outlook for Gas Basins

Rocky Mountain and San Juan Basins
Gas production in the Rockies continues to grow, offsetting modest declines in the San Juan and Permian basins. Rockies regional production capacity reached 6.0 billion cubic feet per day (Bcf/day) in 2004 and is climbing steadily toward 7.1 Bcf/day in 2006. This increased production has filled the 2002 Trailblazer expansion (324 million cubic feet per day (MMcf/day) and the 2003 Kern River Expansion, which went into service in May, 2003. So far, the increased supplies in California from Kern have offset volumes on Gas Transmission, Northwest (GTN) and Transwestern.

Rockies gas traded at a $2.25/MMBtu discount to the NYMEX Henry Hub contract for the months prior to the May 2003 expansion and then traded at a $0.615/MMBtu to NYMEX for the months since the expansion. Looking forward, Rockies gas is currently trading at a $0.675 discount to the NYMEX for summer 2004 and at a $0.635/MMBtu discount for winter 2004/5

San Juan production is expected to decline to 3.8 Bcf in 2004 and to continue to decline at a rate of 100 MMcf/day per year through 2005. San Juan gas is currently trading at a $0.59/MMBtu discount to NYMEX for summer 2004 and at a $0.62/MMBtu discount for winter 2004/5. PG&E also anticipates that San Juan gas prices will be moderated by above normal hydroelectric output in California and competition from Rockies and Alberta supplies. PG&E's hydro department forecasts California's hydro output for 2004 to be 100 percent of normal.

Sources: CERA Monthly Briefing, January 22, 2004.

Permian Basin
The Permian basin is currently trading at a $0.38/MMBtu discount to NYMEX for summer 2004 and at a $0.39/MMBtu discount for winter 2004/5. The Permian basin began winter supplying California on the margin. As California experienced above normal temperatures in December, however, Permian gas started flowing east. The outlook for Permian gas in summer 2004 is uncertain. Katy hub basis is widening due to three factors: increased production in eastern Texas; decreased demand in Texas due to declined in industrial demand and warmer than average weather; and above normal storage inventories.

Sources: CERA Monthly Briefing, Western Energy, January 22, 2004.

California Production

California production is expected to remain flat at slightly over 1 Bcf/day. Nearly 800 MMcf/day of this production is located in southern California (Occidental Energy), and the remaining 200 MMcf/day resides in northern California. Drilling activity continues at an average of 17 rigs. This trend is expected to continue through 2012.

Sources: CEC Natural Gas Supply and Infrastructure Assessment, Baker Hughes Inc.

Alberta and British Columbia

Canadian supplies continue to play an important role in California and the U.S. as a whole.

In Alberta, the Western Canadian Supply Basin (WCSB) gas production has made a turn around. A year ago production rates were declining even though rig counts were on their way back up. Today, production has increased to 16.11 Bcf per day, an increase of 0.13 Bcf per day over January 2003. CERA believes that WCSB production will continue to grow for the remainder of the decade.

In the near term, Canadian rig counts (WCSB and BC) reached 572 rigs in January 2004, the highest level in 10 years British Columbia leads the production growth with an increase of 150 MMcf/day over last year and January rig utilization of 95%. Coal bed methane production in the WCSB is starting to have an impact with production likely to double to 50 MMcf/day in 2004.

Other factors putting upward pressure on Alberta prices include eastern market storage levels, hydro conditions in the Pacific Northwest, and the strengthening Canadian dollar. Storage levels in Alberta and the eastern markets in the U.S. and Canada dropped to near record lows in last, but may finish the withdrawal season with above average inventories, especially in the east. Hydro conditions in the Pacific Northwest are expected to be much better than 2003. CERA estimates northwest hydroelectric output for 2004 will be 15% greater than last year, which implies an increase of 400 average MW. Finally, the Canadian dollar has climbed from US$0.65/C$ in January 2003 to US$0.775/C$ in January 2004.

Other factors are putting negative pressure on Alberta prices including: decreased demand in California, the Kern River Expansion to California, and uncontracted capacity on TransCanada's mainline. Demand in California is expected to be moderated by the normal hydro year, as discussed before. PG&E has also seen gas from the 2003 Kern River pipeline expansion displacing gas volumes from GTN, and thus Alberta. PG&E expects this trend to continue through the term of GSP-3. Uncontracted capacity on TransCanada's mainline changes Alberta export economics from netback to net forward for volumes using that capacity. Net forward pricing includes pipeline capacity as a variable charge, which puts negative pressure on prices in the basin.

WCSB gas at the AECO 'C' hub continues to trade at a $0.615/MMBtu discount to Henry Hub for summer 2004 and at a $0.60/MMBtu discount for winter 2004/5. PG&E expects the market forces discussed above to soften Alberta prices for the remainder of 2004, although extreme weather (hot in summer and cold in winter) will cause prices to run up.

Sources: CERA Monthly Briefing, Western Energy, January 22, 2004, CERA North American Gas Watch, Winter 2004, CERA Monthly Briefing, January 22, 2004, Baker Hughes Inc., PG&E Utility Risk Management forward curves

ii. Potential Supply Concerns

PG&E has no supply shortage concerns for the term of GSP-2.

iii. Anticipated Pipeline Outages

PG&E reviewed the Web sites of the interstate and intra-state pipelines serving the CDWR-contracted facilities in preparation of this plan. There are no large, planned outages scheduled for 2004 at this time. PG&E monitors these pipelines' Web sites for scheduled outages . Monitoring these and other pipeline notices is part of PG&E's gas scheduler's duties.

c. Regulatory Outlook

i. California Public Utilities Commission

SoCalGas Gas Industry Restructuring (GIR) (D.01-12-018)

On January 12, 2004, Administrative Law Judge DeUlloa, the principal hearing officer in the Southern California Gas Company proceeding for restructuring of its natural gas regulatory framework, issued his proposed decision. The proposed decision will not appear on the Commission's agenda for at least 30 days after the date it was mailed.

ALJ DeUlloa's proposed decision adopts tariffs that implement Decision 01-12-018, which allows for a System of Firm, Tradable Receipt Point Capacity Rights, a secondary market for Receipt Point Capacity Rights and Storage Rights trading, and other related provisions. In D.01-12-018, the Commission adopted a comprehensive settlement agreement (CSA) that modified the market and regulatory framework for regulating the transportation and storage of natural gas on Southern California Gas Company's system. The proposed decision does not establish new policies and does not modify either the CSA or D.01-12-018.

source: www.socalgas.com

ii. Federal Energy Regulatory Commission (FERC)

There are a number of cases at the federal level that may impact fuel purchases over the next twelve months. Cases involving PG&E directly are discussed in Section d. Regulatory Cases Involving PG&E. The remaining federal cases include:

1. Standard Market Design (SMD) Notice of Proposed Rulemaking (NOPR) (RM01-12-000) - FERC's proceeding regarding standardizing the rules for power markets. The FERC issued its white paper on its proposed SMD in April 2003 and is currently engaging in regional conferences to discuss regional flexibilities that may be encoded into the final rule. The Energy Bill legislation currently before Congress mandates that FERC may not issue any final SMD rule before 2007.
2. Natural Gas Pipeline Negotiated Rate Polices and Practices, Docket No. PL02-6-000. The Commission issued a policy statement in July 2003 modifying its negotiated rate policy. The FERC has modified its Policy concerning negotiated rates to continue to permit the flexible, efficient pricing of pipeline capacity in a transparent manner, while ensuring the mitigation of market power. The modifications include a new prohibition of the use of gas basis differentials to price negotiated rate transactions.
3. California Independent System Operator (CAISO) Market Design 2002 (MD2002) Plan (ER02-1656) - This case continued western price mitigation

and established a bid cap of $250/MWh and set up the Automated Mitigation Provision (AMP) that applies only if prices are greater than $91.87/MWh. The MD02 plan has yet to be fully implemented by the CAISO

4. Price Discovery in Natural Gas and Electric Markets, Docket No. PL03-3-000. The Commission voted on a policy statement that takes steps to encourage further voluntary participation in the index building process by identifying certain minimum practices that if followed by data providers, would establish a "safe harbor" for any errors that may occur in data submission. The submitters would be protected from any FERC penalties should they follow these minimum practices. The practices include (1) requiring data providers to report the information through someone other than the traders, (2) having a code of conduct, (3) having an error resolution process in place, (4) reporting transaction specific data (i.e. price volume, buy/sell indicators, location, date/time, term), and having a data retention and review process. In addition the policy statement states that index developers should have a code of conduct/confidentiality provision in place, require the above information be reported on a transaction level basis, have data verification, error correction and monitoring procedures, and allow access to the data by FERC.

5. 2003/2004 Winter Gas Market Assessment (No Docket Number) – On Nov. 13, 2003 the FERC heard a presentation from the Office of Market Oversight and Investigation on the pricing of gas for the upcoming winter months. The presentation illustrated the projected difference between the cost of gas in storage ($5.25) and project futures strip for this winter ($5.03) and the estimated cost of gas in storage in 2002-03 winter ($3.33) vs. the average cash price of gas during that heating season ($5.49). This caught Chairman Wood's eye as illustrating the value of storage as insurance even if that insurance comes at a cost of $0.22 this year because last year it resulted in $2 in customers' favor. Given the correlation between the level of gas in storage and the price of gas (FERC staff was actually clear to discuss this more as a barometer than a direct correlation), the value of storage is well-worth the cost of the "insurance." Chairman Wood wanted to ensure state commissions got this message.

6. Standards of Conduct for Transmission Providers Docket No. RM01-10-000 (Order No. 2004) - On Nov. 25, 2003 the Commission issued a final rule, Order No. 2004, adopting new standards of conduct for Transmission Providers when dealing with their "energy affiliates." Within 60 days after Federal Register publication, each Transmission Provider must post on the OASIS or its Internet website a compliance plan. All Transmission Providers must comply with the standards of conduct by June 1, 2004. The standards of conduct are designed to prevent Transmission Providers (interstate natural gas pipeline and public electric utilities) from giving undue preferences to any of their Energy Affiliates to ensure that

transmission is provided on a non-discriminatory basis. The final rule addresses many of the concerns of the industry, including retaining the existing exemption for local distribution companies; continuing already granted exemptions from the existing affiliate rule; allowing the sharing of corporate officers, directors and senior manager so long as they do not act as a conduit of information among affiliates; allowing exemptions from the rule for foreign affiliates, affiliated Transmission Providers (interstate gas pipelines or electric public utilities), a holding, parent or service company not involved in transmission or commodity transactions; permitting Transmission Providers to share support employees and field and maintenance employees with their Marketing and Energy Affiliates; and ensuring system reliability by explicitly allowing Transmission Providers to take whatever steps are necessary in an emergency to ensure reliable operations, including, if necessary, sharing of employees otherwise barred. Major Industry proposals that were not accepted included continuation of the exemption for producer, gatherers and processors, and requests that intrastate pipelines, Hinshaw pipelines and trading and financial affiliates be exempt. Rehearing or clarification requests are due to be filed by Dec. 24, 2003.

7. Amendments to Blanket Sales Certificates, Docket No. RM03-10-000 (Order No. 6). The FERC voted on a final rule that issues a set of market behavior rules designed to help prevent market abuse, provide a more stable marketplace and create an environment that will attract needed investment capital in the electric and natural gas industries. The market behavior rules will alert sellers to various types of prohibited behavior. The rules also contain flexibility to allow for new and unexpected practices. The rule contains provisions relating to: market manipulation, reporting, and record retention. If a seller is found to have engaged in prohibited behavior, the seller will be subject to disgorgement of unjust profits and non-monetary remedies such as revocation of the seller's market-based rate authority or blanket certificate authority. Commissioner Massey went on record to state that he believes that the Commission should not limit itself to disgorgement of profits as its only remedy. The new rules are designed to provide more effective remedies on behalf of customers and to provide those entities with market-based rates or blanket gas certificates appropriate rules respecting market conduct with a time-limited third-party complaint window. The rule becomes effective on Dec. 26, 2003 and entities must inform FERC whether they report their transactions to index publishers by Jan. 8, 2004.

iii. National Energy Board (NEB), Canada

PG&E is monitoring one issue at the NEB involving the TransCanada British Columbia system (formerly ANG). At issue is how TransCanada allocates unused firm capacity to shippers. TransCanada is soliciting shipper support for new services in 2004. TransCanada proposes to allocate unused firm capacity via a new Short Term Firm Service, available for a term of 1 to 12 months, at 135 percent of the Firm Service Demand rate. TransCanada has also proposed a NIT to Kingsgate service, contractually integrating the NOVA and BC System pipelines for existing firm contracts. TransCanada is in discussions with the Canadian Association of Petroleum Producers and Chevron regarding settlement of issues related to the accounting of pension costs.

iv. Alberta Energy & Utilities Board (AEUB)

TransCanada and its shippers reached a settlement regarding its 2003 revenue requirement for its Alberta system (formerly the NOVA system). The settlement, expressed in a "Statement of Principles", was announced on February 7, 2003. The settlement fixes the Alberta system revenue requirement for 2003 at C$1.277 billion, a C$70 million decrease from the 2002 revenue requirement. This smaller revenue requirement will cause a slight reduction in rates. TransCanada filed the settlement with the AEUB on February 27 and is awaiting approval. PG&E is also monitoring the long-term issue of cost allocation on the Alberta system. Currently, cost is allocated roughly 50/50 between Intra-Alberta Shippers (receipt point) and Export Shippers (delivery point). Intra-Alberta Shippers are advocating a greater allocation of cost to Export Shippers.

d. Regulatory Cases Involving PG&E

i. California Public Utilities Commission

PG&E Amended Gas Accord II -2004

On December 18, 2003, the CPUC issued a decision regarding the PG&E's Gas Accord II application, adopting an alternate decision sponsored by CPUC Commissioner Peevey. The CPUC approved the Gas Accord market structure for 2004 and 2005 and resolved the rates, and terms and conditions of service for PG&E's gas transmission and storage system for 2004. The CPUC adopted a 2004 revenue requirement of $436.4 million, representing a 2.9 percent increase from PG&E's current revenues. Under this decision, bundled core rates will increase by 0.52 percent, and noncore transportation rates will increase by 6.12 percent. In addition, the decision extends PG&E's existing incentive mechanism for recovery of core procurement costs (the core procurement incentive mechanism, or CPIM) through 2005, unless a revised mechanism is adopted before that time.

This decision also adopts PG&E's proposals for extending natural gas transportation contracts and for soliciting new natural gas transportation contracts; i.e., an open season, and enables PG&E to complete its open season and have contracts in place by January 1, 2004.

Finally, beginning in 2005, the decision exempts certain customers connected to PG&E's backbone transmission facilities from paying local transmission rates and orders the PG&E to develop rate proposals that include a surcharge for these departing customers. (PG&E's backbone transmission facilities connect gas transmission pipelines delivering gas from the California border and from California production and storage sources to the local gas transmission system.)

Under the Gas Accord II, PG&E continues to be at risk of not recovering its natural gas transportation and storage costs and does not have regulatory balancing account provisions for over-collections or under-collections of natural gas transportation or storage revenues. PG&E may experience a material reduction in operating revenues if throughput levels or market conditions are significantly less favorable than reflected in rates for these services.

ii. Federal Energy Regulatory Commission

El Paso Capacity Allocation Case (RP00-336) - FERC ordered Full Requirements (FR) conversion to Contract Demand (CD) and capacity allocation changes to resolve the CD shipper complaint issues. In a July 2003 order, the FERC affirmed its conclusion that Full Requirements (FR) contracts must be converted to Contract Demand (CD) by Sept. 1, 2003. After the contracts are converted, the FR customers will no longer be bound to take all of their transportation service from El Paso and will be free to contract with other pipelines for additional service. The FERC also affirmed that the capacity that will become available from El Paso's Power-Up project must be included in the initial allocation to the converting FR shippers. FERC turned the case back to the parties for settlement discussions, which are ongoing. PG&E is directly involved in this case as a firm shipper on El Paso.

CPUC v. El Paso (RP00-241) - A FERC ALJ found that El Paso Pipeline did in fact withhold substantial capacity that it could have made available to its California delivery points during the power crisis, a clear exercise of market power. This decision is yet to be confirmed by FERC. PG&E is involved in the case as a buyer of natural gas during the crisis. On Nov. 14, 2003 the FERC approved a $1.6 billion settlement between the affiliates of El Paso Corp. and the California Public Utilities Commission. Under the deal, El Paso admitted to no wrongdoing and agreed to provide cash and stock to customers and will also deliver $900 million of natural gas to California over the next 20 years and will reduce the price of power deliveries to the California DWR. The Commission did, however, reject a proposal for dual primary firm delivery points in the settlement. That proposal was designed to maintain California's primary delivery point rights when capacity is resubscribed to upstream points

e. Transactions for use of Utility-owned Facilities

PG&E will transact for utility owed facilities or services subject to this presumption of reasonableness standard per Commission Resolution E-3825:

a) In cases where an RFO is issued and offers are received, it is presumed that a reasonable price is paid if PG&E's charge to CDWR for the use of the utility's facilities or services is the same as or lower than the bid(s) received.

b) In cases where there are no competitive alternatives for comparison, it is presumed that a reasonable price is paid if PG&E's charge to CDWR for the use of the utility's facilities or services is either: 1) the tariff recourse rate for the service; or 2) if the price is negotiated, no higher than the volume weighted average of the price the utility negotiated (except for CDWR) for each similar service in the same month and for the same period the service is provided. In addition, negotiated prices above this weighted average are not per se unreasonable, but require PG&E to show the Commission why they were reasonable.

f. Transactions Outside the Scope of the Gas Supply Plan

As authorized by the Commission in Resolution E-3825, PG&E may pursue activities outside the scope of the approved Gas Supply Plan, subject to Commission reasonableness review, in the event extraordinary circumstances arise and it is necessary for PG&E to meet its administrative and operational responsibilities consistent with Commission decisions and with the CDWR Fuels Protocols. PG&E shall document and describe these occurrences including an explanation of resulting ratepayer benefits. Additionally, the PG&E is required to notify CDWR and the Commission's Energy Division when contemplating taking such actions via a letter and obtain CDWR's prior consent where such consent is required by CDWR's Fuels Protocols.

Appendix

Appendix A: Sample Calculations
Appendix B: CDWR Fuel Protocols
Appendix C: Pipeline and Storage Tariffs
Appendix D: Discussion of Swaps vs. Options for Hedging

Appendix A: Sample Calculations

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Appendix B: CDWR Fuels Protocols

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Appendix C: Pipeline and Storage Tariffs

Interstate and Canadian Pipeline Rates

Pipeline	Rate Schedule	Path	Reservation ($/Dth)	Delivery ($/Dth)	GRI Reservation*** ($/Dth)	GRI Delivery*** ($/Dth)	ACA*** ($/Dth)	Fuel (in-kind)	Illustrative Rate** ($/Dth)
El Paso	FT-1	San Juan - CA	$0.32603	$0.0174	$0.001644	$0.0040	$0.0021	3.20%	$0.35117
		Permian - CA	$0.34413	$0.0355	$0.001644	$0.0040	$0.0021	3.20%	$0.38737
	IT-1	San Juan - CA	n/a	$0.3260	n/a	$0.0040	$0.0021	3.20%	$0.33210
		Permian - CA	n/a	$0.3441	n/a	$0.0040	$0.0021	3.20%	$0.35020
Kern River	KRF-1	Standard Firm	$0.5536	$0.0580	$0.0016	$0.0040	$0.0021	1.55%****	$0.6292
	KRI-1	Interruptible	n/a	$0.6100	n/a	$0.0040	$0.0021	1.55%****	$0.6260
Northwest	TF-1	Various, firm	$0.2776	$0.0300	$0.0164	$0.0040	$0.0021	1.72%	$0.3301
	TF-2	From storage - various	$0.2776	$0.0300	n/a	n/a	n/a	1.72%	$0.3076
	TI-1	Various, interruptible	n/a	$0.3076	n/a	$0.0040	$0.0021	1.72%	$0.3137
PG&E GT NW	FTS-1	Kingsgate - Malin	$0.254825	$0.007962	$0.001645	$0.0040	$0.0021	2.021%	$0.270532
		Stanfield - Malin	$0.152583	$0.004356	$0.001645	$0.0040	$0.0021	0.915%	$0.164684
	LFS-1	Kingsgate - Malin	$0.254825	$0.007962	$0.001645	$0.0040	$0.0021	2.021%	$0.270532
		Stanfield - Malin	$0.152583	$0.004356	$0.001645	$0.0040	$0.0021	0.915%	$0.164684
	ITS-1	Kingsgate - Malin	n/a	$0.263024	n/a	$0.0040	$0.0021	2.021%	$0.269124
		Stanfield - Malin	n/a	$0.157068	n/a	$0.0040	$0.0021	0.915%	$0.163168
	PS-1	(parking)	n/a	$0.0290	n/a	$0.0040	$0.0021	n/a	$0.0351
	AIS-1	(imbalance)	n/a	$0.0120	n/a	$0.0040	$0.0021	n/a	$0.0181

Interstate and Canadian Pipeline Rates

Pipeline	Rate Schedule	Path	Reservation ($/Dth)	Delivery ($/Dth)	GRI Reservation*** ($/Dth)	GRI Delivery*** ($/Dth)	ACA*** ($/Dth)	Fuel (in-kind)	Illustrative Rate** ($/Dth)
Transcanada	FT-D	Alberta: AECO 'C' to ABC	$0.1333	$0.0000	n/a	n/a	incl. Res	0.00%	$0.1333
	IT-D	Alberta: AECO 'C' to ABC	$0.0000	$0.1466	n/a	n/a	n/a	0.00%	$0.1466
	FS-1	BC: ABC to Kingsgate	$0.0497	$0.0029	n/a	n/a	incl. Res	0.90%	$0.0526
	IS-1	BC: ABC to Kingsgate	n/a	$0.0582	n/a	n/a	n/a	0.90%	$0.0582
Transwestern	FTS-1	San Juan - CA	$0.3659	$0.0164	$0.0016	$0.0040	$0.0021	4.75%	$0.3900
		East of Thoreau - CA	$0.3453	$0.0224	$0.0016	$0.0040	$0.0021	5.00%	$0.3754
	ITS-1	San Juan - CA	n/a	$0.3823	n/a	$0.0040	$0.0021	4.75%	$0.3884
		East of Thoreau - CA	n/a	$0.3677	n/a	$0.0040	$0.0021	5.00%	$0.3738

*These illustrative rates were calculated using currently effective tarrif rates at 100% load factor.
**Not including fuel.
***Assumes high load factor. For Transcanada NEB cost recovery fee is included in the reservation charge.
****plus $0.0099/Dth electric surcharge for Daggett compressor.

Distribution and Intra-state Transportation Rates

Local Distribution Rates

Utility	Rate Schedule	Path	Reservation ($/Dth)	Usage ($/Dth)	Fuel (in-kind)
PG&E	G-EG (firm)	Citygate - Plantgate	n/a	$0.2644	n/a
	G-SUR	Franchise fee surcharge	n/a	$0.0917	n/a

Utility	Rate Schedule	Rate	Usage ($/Dth)	Surcharges ($/Dth)	ITCS ($/Dth)	Total ($/Dth)
SoCal	GT-F (firm)	GT-I5 Electric Generation	$0.3318	$0.1107	$0.0224	$0.4649
	GT-I (interruptible)	GT-F5 Electric Generation	$0.3318	$0.1107	$0.0224	$0.4649

Distribution and Intra-state Transportation Rates

Intra-state Pipeline Rates

Utility	Rate Schedule	Path	MFV Reservation* ($/Dth)	SFV Reservation* ($/Dth)	MFV Usage ($/Dth)	SFV Usage ($/Dth)	Fuel*** (in-kind)	Illustrative Rate* MFV or SFV ($/Dth)
PG&E	G-AFT (annual firm)	Redwood to On-System	$0.1761	$0.2979	$0.1236	$0.0019	1.20%	$0.2997
		Baja to On-System	$0.1469	$0.1881	$0.0448	$0.0036	1.20%	$0.1917
		Silverado to On-System	$0.0821	$0.1135	$0.0328	$0.0014	1.20%	$0.1149
		Mission to On-System	$0.0821	$0.1135	$0.0328	$0.0014	n/a	$0.1149
	G-SFT (seasonal firm)	Redwood to On-System	$0.2113	$0.3574	$0.1483	$0.0023	1.20%	$0.3596
		Baja to On-System	$0.1763	$0.2257	$0.0538	$0.0043	1.20%	$0.2301
		Silverado to On-System	$0.0985	$0.1362	$0.0393	$0.0017	1.20%	$0.1378
		Mission to On-System	$0.0985	$0.1362	$0.0393	$0.0017	n/a	$0.1378
	G-NFT (negotiated firm)	Redwood to On-System	Capped at 120% of G-AFT at 100% load factor under the MFV rate structure					$0.3597
		Baja to On-System	Capped at 120% of G-AFT at 100% load factor under the MFV rate structure					$0.2300
		Silverado to On-System	Capped at 120% of G-AFT at 100% load factor under the MFV rate structure					$0.1379
		Mission to On-System	Capped at 120% of G-AFT at 100% load factor under the MFV rate structure					$0.1379

*These illustrative rates were calculated using currently effective tarrif rates at 100% load factor.
**Capped at 120% of G-AA

Utility	Rate Schedule	Path	Reservation ($/Dth)	Usage ($/Dth)	Fuel*** (in-kind)
PG&E	G-AA (as-available)	Redwood to On-System	n/a	$0.3597	1.20%
		Baja to On-System	n/a	$0.2300	1.20%
		Silverado to On-System	n/a	$0.1379	1.20%
		Mission to On-System	n/a	$0.0000	n/a
	G-NAA** (negotiated as-available)	Redwood to On-System	n/a	$0.4316	1.20%
		Baja to On-System	n/a	$0.2760	1.20%
		Silverado to On-System	n/a	$0.1655	1.20%
		Mission to On-System	n/a	$0.0000	n/a

*These illustrative rates were calculated using currently effective tarrif rates at 100% load factor.
**Capped at 120% of G-AA
***Fuel rate effective 3/1/2003

California Storage Rates

Provider	Rate Schedule	Sub-function	Reservation ($/Dth/Day) or ($/Dth/year)	Usage ($/Dth)	CPUC Fee ($/Dth)	Fuel (in-kind)	Illustrative* 1 Full Cycle** ($/Dth)
PG&E	G-FS	Inventory ($/Dth/year)	$0.844400	$0.0000	$0.0000	0%	$0.8444
		Injection	$0.000000	$0.0437	$0.0000	0%	$0.0437
		Withdrawal ($/Dth/year)	$10.919100	$0.0437	$0.0000	0%	$0.0738
		Cycle					$0.9619
	G-NFS	Inventory ($/Dth/year)	$1.294100	$0.0000	$0.0000	0%	$1.2941
		Injection	$9.2196	$0.0000	$0.0000	0%	$0.3016
		Withdrawal ($/Dth/year)	$5.5697	$0.0000	$0.0000	0%	$0.1844
		Cycle					$1.7801
	G-NAS	Injection	$9.2196	$0.0000	$0.0000	0%	$0.3016
		Withdrawal	$5.5697	$0.0000	$0.0000	0%	$0.1844
SoCal Gas	G-LFS	Inventory ($/Dth/year)	$0.2140	$0.0000	$0.0000	0%	$0.2140
		Injection	$0.0943	$0.0127	$0.0000	2.44%	$0.0158
		Withdrawal ($/Dth/year)	$11.5840	$0.0177	$0.0000	0%	$0.0944
		Expansion Withdrawal	$19.8260	$0.0177	$0.0000	0%	$0.1490
		Transmission to Storage	$0.0000	$0.5670	$0.0000	0%	$0.5670
		Cycle*					$0.8912
		Expansion Cycle*					$0.9458
	G-TBS	Inventory ($/Dth/year)	combined	$0.0000	$0.0000	0%	$0.0000
		Injection	combined	$0.0127	$0.0000	2.44%	$0.0127
		Withdrawal ($/Dth/year)	combined	$0.0177	$0.0000	0%	$0.0177
		Combined Inv/Inj/Withd	$14.2710	n/a	$0.0000	0%	$0.3526
		Transmission to Storage	n/a	$0.5670	$0.0000	0%	$0.5670
		Cycle*					$0.9500
Wild Goose	BLS	Inventory***	$0.0300	$0.0000	n/a	0%	$0.0000
		Injection***	$3.0000	$0.0200	n/a	0%	$0.0000
		Withdrawal***	$2.0000	$0.0200	n/a	1.5-2.5%	$0.0000
		Cycle					$0.0000
		***These rates are "suggested retail prices", far below the tariff maximums. See Web site for current pricing.					
	STS	Combined Inv/Inj/Withd	$500	All sub-function rates are negotiable to a combined total, reservation and/or usage, of $500/Dth			
Lodi Storage	FSS	Inventory***	$0.0000	$0.0000	n/a	0%	$0.0000
		Injection***	$0.0000	$0.0000	n/a	0%	$0.0000
		Withdrawal***	$0.0000	$0.0000	n/a	0%	$0.0000
		Cycle					$0.0000
	ISS	Combined Inv/Inj/Withd	$500	All sub-function rates are negotiable to a combined total, reservation and/or usage, of $500/Dth			

Appendix D – Discussion of Swaps versus Options for Hedging PG&E's Electric Portfolio

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PG&E Electric Advice Filing List
General Order 96-A, Section III(G)

ABAG Power Pool
Aglet Consumer Alliance
Agnews Developmental Center
Ahmed, Ali
Alcantar & Elsesser
Anderson Donovan & Poole P.C.
Applied Power Technologies
APS Energy Services Co Inc
Arter & Hadden LLP
Avista Corp
Barkovich & Yap, Inc.
BART
Bartle Wells Associates
Blue Ridge Gas
Bohannon Development Co
BP Energy Company
Braun & Associates
C & H Sugar Co.
CA Bldg Industry Association
CA Cotton Ginners & Growers Assoc.
CA League of Food Processors
CA Water Service Group
California Energy Commission
California Farm Bureau Federation
California ISO
Calpine
Calpine Corp
Calpine Gilroy Cogen
Cambridge Energy Research Assoc
Cameron McKenna
Cardinal Cogen
Cellnet Data Systems
Childress, David A.
City of Glendale
City of Healdsburg
City of Palo Alto
City of Redding
CLECA Law Office
Constellation New Energy
CPUC
Creative Technology
Crossborder Inc
CSC Energy Services
Davis, Wright Tremaine LLP
Davis, Wright, Tremaine, LLP
Defense Fuel Support Center
Department of the Army
Department of Water & Power City
Dept of the Air Force
DGS Natural Gas Services
DMM Customer Services
Downey, Brand, Seymour & Rohwer
Duke Energy
Duke Energy North America
Duncan, Virgil E.
Dutcher, John
Dynegy Inc.
Ellison Schneider
Energy Law Group LLP
Enron Energy Services
Exeter Associates
Foster, Wheeler, Martinez
Franciscan Mobilehome
Future Resources Associates, Inc
GLJ Energy Publications
Goodin, MacBride, Squeri, Schlotz &
Grueneich Resource Advocates
Hanna & Morton
Heeg, Peggy A.
Hogan Manufacturing, Inc
House, Lon
Imperial Irrigation District
Integrated Utility Consulting Group
International Power Technology
J. R. Wood, Inc
JTM, Inc
Kaiser Cement Corp
Korea Elec Power Corp
Marcus, David
Masonite Corporation
Matthew V. Brady & Associates
Maynor, Donald H.
McKenzie & Assoc
McKenzie & Associates
Meek, Daniel W.
Meyer, Joseph
Mirant California, LLC
Modesto Irrigation Dist
Morrison & Foerster
Morse Richard Weisenmiller & Assoc.
New United Motor Mfg, Inc
Norris & Wong Associates
North Coast Solar Resources
Northern California Power Agency
PG&E National Energy Group
Pinnacle CNG Company
PPL EnergyPlus, LLC
Price, Roy
Product Development Dept
Provost Pritchard
R. M. Hairston & Company
R. W. Beck & Associates
Recon Research
Regional Cogeneration Service
RMC Lonestar
Sacramento Municipal Utility District
SCD Energy Solutions
Seattle City Light
Sempra
Sempra Energy
Sequoia Union HS Dist
SESCO
Sierra Pacific Power Company
Silicon Valley Power
Simpson Paper Company
Smurfit Stone Container Corp
Southern California Edison
SPURR
St. Paul Assoc
Stanford University
Sutherland, Asbill & Brennan
Tabors Caramanis & Associates
Tansev and Associates
Tecogen, Inc
TFS Energy
TJ Cross Engineers
Transwestern Pipeline Co
Turlock Irrigation District
United Cogen Inc.
URM Groups
Utility Cost Management LLC
Utility Resource Network
Wellhead Electric Company
Western Hub Properties, LLC
White & Case
WMA