

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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October 1, 2008

Advice Letter 2935-G

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Subject: Report on the Adequacy of PG&E Company's Backbone
Transmission Capacity Holdings and Capacity Utilization
in Compliance with D.06-09-039

Dear Mr. Cherry:

Advice Letter 2935-G is effective July 31, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Lewis".

Kenneth Lewis, Acting Director
Energy Division



July 1, 2008

Advice 2935-G

(Pacific Gas and Electric Company ID U 39 G)

Public Utilities Commission of the State of California

**Subject: Report on the Adequacy of Pacific Gas and Electric Company's
Backbone Transmission Capacity Holdings and Capacity
Utilization in Compliance with Decision 06-09-039**

Pacific Gas and Electric Company (PG&E) hereby submits for filing a compliance report on the adequacy of PG&E's backbone transmission capacity holdings and capacity utilization consistent with PG&E's proposals in Phase II of the Gas Capacity OIR, Decision (D.) 06-09-039.

Purpose

The purpose of this advice letter and the attached report is to comply with the requirement imposed in D.06-09-039 and to provide the Commission with an update on PG&E's backbone transmission capacity utilization outlook.

Background

As required by Decision 06-09-039, PG&E has adequate backbone transmission capacity to ensure that both current and forecast demand can be met within the Commission's 80-90% usage range through 2018. The adequacy of PG&E's backbone transmission capacity holdings to serve core and electric customers has historically been addressed in the Gas Accord and Long Term Procurement Plan proceedings. PG&E believes that these are the appropriate forums in which to address this issue and, therefore, will limit comments in both the advice letter and the report to addressing the adequacy of system capacity relative to current and forecast demand.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **July 21, 2008**, which is 20 days after the date of this filing. Protests should be mailed to:

CPUC Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: ijnj@cpuc.ca.gov and mas@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-mail: PGETariffs@pge.com

Effective Date

PG&E requests that this advice filing become effective on regular notice, **July 31, 2008**, which is 30 calendar days after the date of filing.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and to the service list for R.04-01-025. Address changes to the General Order 96-B service list should be directed to Rose de la Torre at (415) 973-4716. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs>

A handwritten signature in black ink that reads "Brian H. Cheny / drc". The signature is written in a cursive style.

Vice President, Regulatory Relations

Attachments

cc: Service List R.04-01-025

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

ELC

GAS

PLC

HEAT

WATER

Contact Person: Daren Chan

Phone #: 415-973-5361

E-mail: D1CT@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric

GAS = Gas

PLC = Pipeline

HEAT = Heat

WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **2935-G**

Tier: 2

Subject of AL: Report on the Adequacy of Pacific Gas and Electric Company's Backbone Transmission Capacity Holdings and Capacity Utilization in Compliance with Decision 06-09-039

Keywords (choose from CPUC listing): Compliance, Capacity

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.06-09-039

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Resolution Required? Yes No

Requested effective date: **July 31, 2008**

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed: N/A

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division

Tariff Files, Room 4005

DMS Branch

505 Van Ness Ave., San Francisco, CA 94102

jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Brian K. Cherry, Vice President, Regulatory Relations

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

**PACIFIC GAS AND ELECTRIC COMPANY
COMPLIANCE REPORT ON THE ADEQUACY OF PACIFIC GAS
AND ELECTRIC COMPANY'S BACKBONE TRANSMISSION
CAPACITY HOLDINGS AND CAPACITY UTILIZATION**

PACIFIC GAS AND ELECTRIC COMPANY
ADEQUACY OF BACKBONE TRANSMISSION CAPACITY HOLDINGS AND
CAPACITY UTILIZATION

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1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **ADEQUACY OF BACKBONE TRANSMISSION CAPACITY**
3 **HOLDINGS AND CAPACITY UTILIZATION**

4 **A. Introduction**

5 In Decision 06-09-039, the California Public Utilities Commission
6 (Commission) adopted a natural gas transportation backbone capacity utilization
7 guideline for Pacific Gas and Electric Company (PG&E) and Southern California
8 Gas Company (SoCal Gas). This guideline states that if utilization of intrastate
9 backbone transmission capacity exceeds 80-90 percent on a forecast basis, an
10 expansion of capacity may be needed. This guideline establishes a range in
11 order to provide the utilities flexibility to manage how and when to make new
12 infrastructure investments.

13 Decision 06-09-039 required that “the Pacific Gas and Electric Company and
14 the Southern California Gas Company shall demonstrate in biennial advice letter
15 filings to the Commission’s Energy Division starting 2008 that they hold
16 adequate backbone transmission capacity and have slack capacity consistent
17 with their proposals presented herein. The first filing is due July 1, 2008.”**[1]**

18 In compliance with the Commission’s direction, this filing updates the
19 showing PG&E made in Phase II of Gas Capacity OIR and contains PG&E’s
20 assessment of backbone transmission capacity covering the period 2009-2018.

21 **B. Adequacy of PG&E’s Backbone Transmission Capacity**
22 **Holdings**

23 Since 1996, PG&E’s intrastate backbone transmission capacity holdings to
24 serve core customers have been determined for three year increments through
25 PG&E’s Gas Transmission and Storage Rate Case Applications, also known as
26 PG&E’s Gas Accord. The Gas Accord has provided stability in gas transmission
27 and storage services, while providing, among other things, the opportunity for all
28 participating parties to evaluate and update the Commission with respect to
29 PG&E’s core backbone transmission and storage holdings. PG&E also
30 complies with the Commission’s Opinion Regarding the Proposal for Incremental
31 Core Gas Storage, which adopted PG&E’s core planning standard of a

[1] See D.06-09-039 at p. 26.

1 1-day-in-10-year peak day and authorized acquisition of incremental storage
2 capacity, firm intrastate and interstate pipeline capacity, and/or firm peaking
3 supply arrangements to meet that standard.^[2] PG&E successfully acquired
4 incremental storage capacity to meet the standard through the 2008-2009 winter
5 periods and will evaluate alternatives for subsequent winter periods.

6 For bundled electric customers, these contractual arrangements are
7 determined through the Long-Term Procurement Plan (LTPP). In
8 Rulemaking 08-02-007, the Commission consolidated “the vast body of
9 procurement-related policies and procedures into one, single, comprehensive,
10 and authoritative document—the 2006 LTPPs.”^[3] PG&E’s original proposal for
11 the long-term gas supply plan was not accepted by the Commission in
12 Decision 07-12-050. PG&E, therefore, will re-file its long-term gas supply plan in
13 accordance with the Commission’s decision.

14 PG&E believes that the Gas Accord and the LTPP are the appropriate
15 forums in which to address the adequacy of PG&E’s intrastate contractual
16 holdings for the core and bundled electric portfolios, respectively. In order to
17 address the adequacy of PG&E’s infrastructure to meet current and future
18 demand, PG&E uses the demand forecasts from the 2008 California Gas Report
19 (CGR), which is being submitted simultaneously with this compliance report.
20 The CGR provides a comprehensive, long-term outlook for natural gas
21 requirements for both core and non-core markets. Evaluating PG&E’s
22 infrastructure using the CGR forecasts provides a valid assessment of the
23 adequacy of PG&E’s infrastructure to meet current and future demand through
24 2018.

25 **C. Backbone Capacity Utilization**

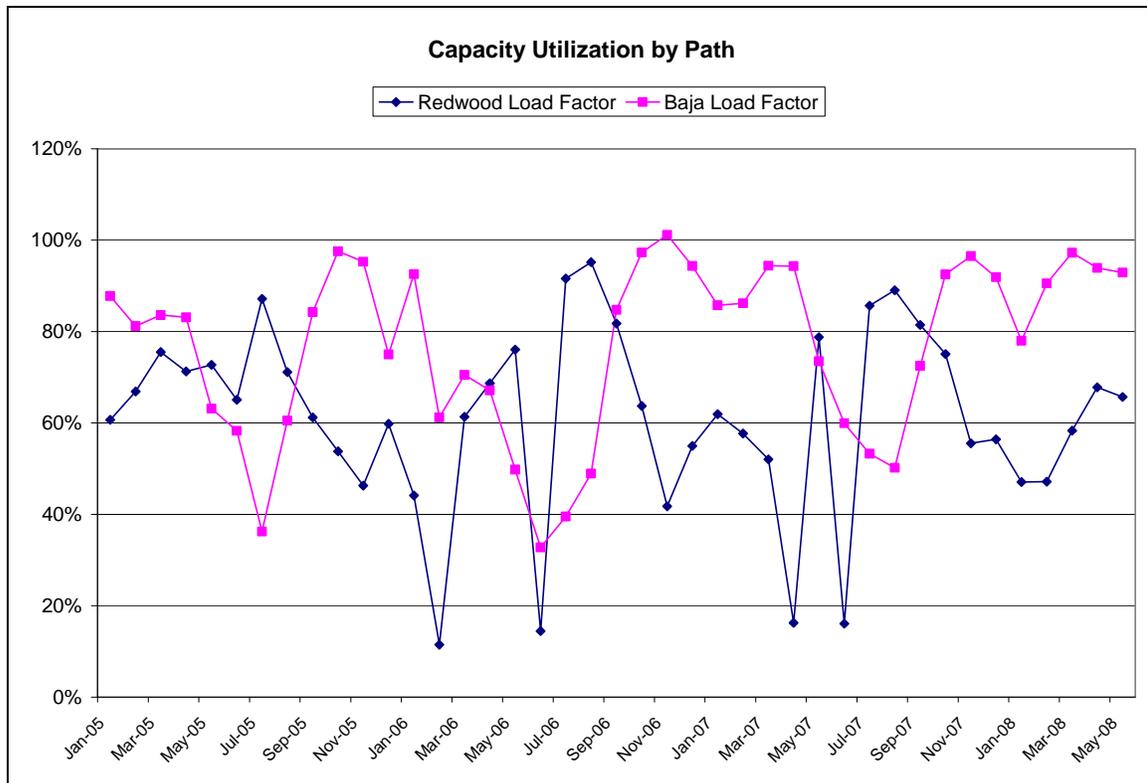
26 Available capacity provides significant value to customers even in years
27 without outages, supply disruptions or increased demand. Additional pipeline
28 capacity allows the market flexibility to move purchases between receipt points,
29 which results in more gas-on-gas competition at the PG&E Citygate. Additional
30 pipeline capacity, when combined with storage, also provides significant
31 flexibility for customers to time their gas purchases throughout the year.

[2] See D.06-07-010, Ordering Paragraph 1, at p. 36.

[3] See R.08-02-007 at p. 5.

1 Figure 1 shows how the market utilizes the additional pipeline capacity to
 2 facilitate gas-on-gas competition. The path with the highest utilization changes
 3 from season to season and sometimes from month to month as the market
 4 seeks gas supplies from the lowest priced source.

**FIGURE 1
 PACIFIC GAS AND ELECTRIC COMPANY
 CAPACITY UTILIZATION BY PATH**

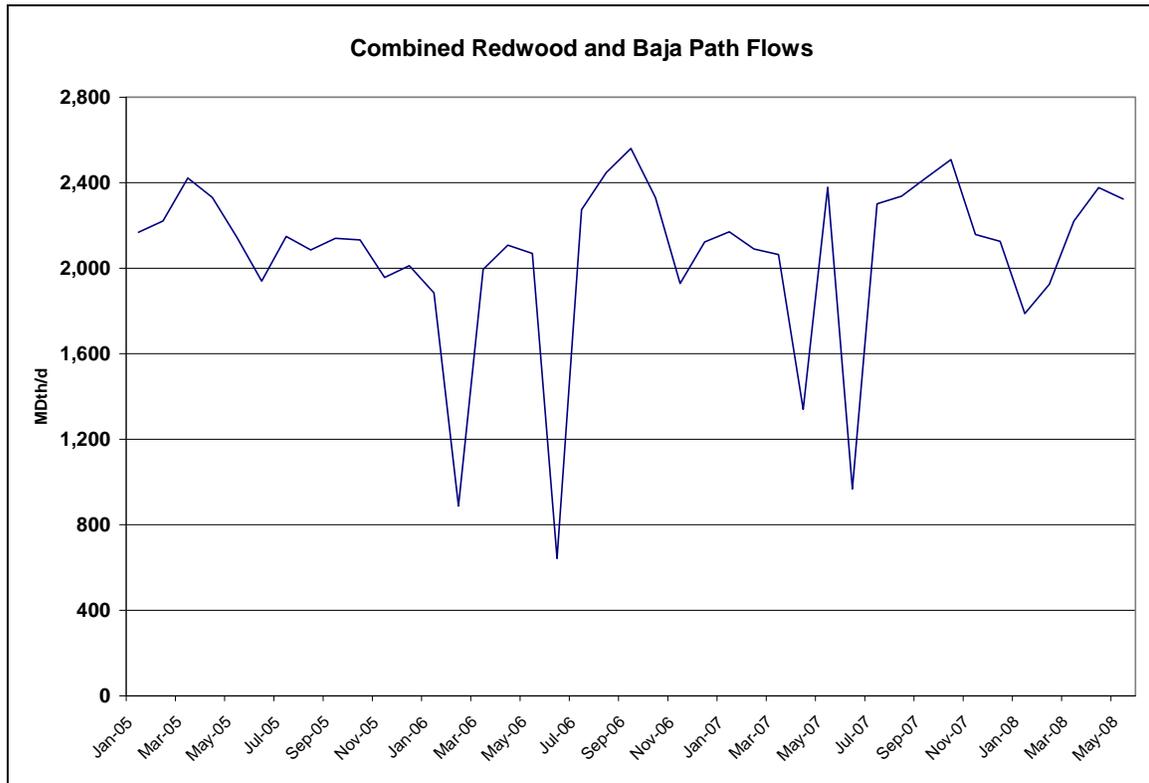


5 In November 2006, PG&E's Baja path operated at full capacity^[4] for the
 6 month. By August 2007, PG&E's Redwood path reached a utilization level of
 7 89 percent while the Baja path dropped to only 50 percent. Sufficient backbone
 8 capacity ensures that the marginal supply source at the California border is
 9 available to compete against any other supply source that might attempt to
 10 charge a commodity price higher than the otherwise available marginal supply.

11 A margin of capacity also facilitates the injection of gas into storage.
 12 Figure 2 shows the average total backbone throughput by month.

^[4] The daily capacities can be higher than the firm capacity quantities used in this analysis due to reduced pressure requirements for the local transmission system and the level and location of off-system deliveries.

**FIGURE 2
PACIFIC GAS AND ELECTRIC COMPANY
COMBINED FLOWS**



1 The months with the highest throughput on PG&E’s backbone system are
2 not always in the months with the highest end-use demand. The aggregate
3 on-system demand on PG&E’s system in January 2007 was 1,095 MDth/d
4 higher than April 2007, but the April 2007 Redwood and Baja path throughput
5 was 209 MDth/d higher than January 2007. The market takes advantage of the
6 extra backbone capacity to time the injection and withdrawal of gas to and from
7 the storage fields. Storage injections from the PG&E pipeline system (into all
8 three storage providers—PG&E, Lodi Gas Storage, and Wild Goose Gas
9 Storage)—totaled over 601 MDth/d during the month of April 2007. Without the
10 additional backbone capacity on PG&E’s system, customers would be
11 constrained significantly in their ability to time the injection of gas into these
12 storage fields. The ability to time storage injection provides significant value to
13 customers. The price of natural gas can vary substantially from month-to-month
14 and the lowest prices are usually seen in the spring and fall months. It is
15 important to maintain sufficient backbone capacity in order for the market to
16 make large injections in months when natural gas prices are low.

1 **D. Demand Forecasts**

2 The average year on-system demand forecasts used in this analysis are
3 from the 2008 CGR. The off-system demand forecast in the 2008 CGR is higher
4 than what is used in this analysis because that forecast included an outlook of
5 short-term arrangements paying less than the full tariff rate. In this analysis,
6 PG&E used an off-system forecast of 85 MMcf/d, which represents the current
7 volumes under long-term full-price contracts. Short-term off-system contracts
8 are excluded from this analysis because PG&E would not increase backbone
9 capacity to serve the off-system market except for customers paying the full tariff
10 rate under a long-term contract, such as the G-XF customers. This is consistent
11 with the approach PG&E used in its Phase II testimony in the Gas Capacity OIR
12 (R.04-01-025).

13 PG&E developed the 1-in-10 Cold and Dry Forecast using the same
14 “Weather Vintage” methodology described in PG&E’s analysis of backbone
15 capacity adequacy in Phase II of Rulemaking 04-01-025. This same
16 methodology was also used in the California Gas Report for the adverse year
17 forecasts, although PG&E’s adverse year forecast in that report represents a
18 1-in-35-year Cold and Dry forecast and not a 1-in-10-year event.

19 The “Weather Vintage” forecast approach was used because of the need to
20 develop a representative year with both Cold and Dry conditions. Cold and Dry
21 conditions are not closely correlated, making it difficult to estimate the probability
22 of weather that is simultaneously a 1-in-10-year cold year and a 1-in-10-year dry
23 year. Adding the results of a 1-in-10-year cold scenario for core demand to a
24 1-in-10-year dry scenario for Electric Generation (EG) demand would produce
25 an unrealistically high forecast of natural gas demand in PG&E’s service area,
26 and the combined scenario is much less likely to occur than a 1-in-10-year
27 event. Using the Weather Vintage approach to developing the core and EG
28 forecasts allows for a better measure of the effect on demand from simultaneous
29 Cold and Dry conditions.

30 **E. Adequacy of PG&E’s Backbone Transmission Capacity**

31 Table 1 delineates the inputs used for transmission capacities of the PG&E
32 backbone system. Table 2 compares the amount of backbone capacity to
33 forecast demand on the PG&E system between 2009 and 2018. Based on this
34 demand forecast, PG&E expects to have a capacity utilization rate less than

1 80 percent through 2018, under the criteria established in Decision 06-09-039.
 2 While there is uncertainty in this longer-term forecast, there is also lead-time for
 3 system enhancements to meet longer-term growth as it develops, should the
 4 forecast of system use change over time.

**TABLE 1
 PACIFIC GAS AND ELECTRIC COMPANY
 TRANSMISSION CAPACITY INPUTS**

Line No.	Transmission Path	Firm Receipt Capacity (MMcf/d)
1	Silverado Path	157
2	Baja Path	1,073
3	Redwood Path	2,019
4	Total	3,249

5 The results of the intrastate capacity utilization analysis are shown in
 6 Table 2 below.

**TABLE 2
 PACIFIC GAS AND ELECTRIC COMPANY
 PG&E BACKBONE CAPACITY UTILIZATION 2009-2018**

Line No.	Year	Average Demand (MMcf/d)	1-in-10 Cold and Dry Year Demand (MMcf/d)	Backbone Receipt Capacity (MMcf/d)	Capacity Utilization Cold and Dry Year Demand
1	2009	2167	2341	3249	72%
2	2010	2195	2372	3249	73%
3	2011	2226	2405	3249	74%
4	2012	2158	2337	3249	72%
5	2013	2153	2336	3249	72%
6	2014	2128	2311	3249	71%
7	2015	2120	2305	3249	71%
8	2016	2143	2326	3249	72%
9	2017	2170	2358	3249	73%
10	2018	2199	2390	3249	74%

7 The projected capacity utilization of PG&E's backbone system through 2018
 8 will be at levels similar to those in 2008, which should allow for sufficient storage
 9 injections. There are three new gas storage projects proposed in northern
 10 California: Sacramento Natural Gas Storage (8 Bcf inventory), Gill Ranch
 11 Storage (20 Bcf inventory), and the Central Valley Storage Gas Storage project
 12 (5.5 Bcf inventory), which would add another 30 percent of storage inventory in

1 northern California. The addition of more natural gas storage capacity may lead
2 to increased usage of backbone capacity to facilitate storage injections. In the
3 future, such usage may lead to a need to modify the capacity utilization criteria
4 to account for seasonal demands, rather than annual average demands.

5 **F. Adequacy of Local Transmission Capacity and Design Criteria**

6 All of PG&E's local gas transmission systems are designed to provide
7 adequate capacity under all weather conditions including extreme cold weather
8 design criteria. The extreme cold weather design criteria are Abnormal Peak
9 Day (APD) and Cold Winter Day (CWD). PG&E is not proposing to make any
10 changes to these standards. The APD design criterion ensures adequate
11 capacity to meet estimated core customer demands. The CWD design criterion
12 ensures adequate capacity to meet estimated non-core customer demands.

13 The APD design criterion is based on an extremely cold weather event that
14 has a recurrence interval of 1-in-90 years. Local areas have their own specific
15 APD temperature. Across the PG&E gas system, the average daily mean APD
16 temperature is approximately 27 degrees Fahrenheit. When analyzing each
17 local transmission system for adequate capacity, all non-core customers are
18 assumed to be curtailed.

19 The CWD design criterion is also based on a very cold event, although not
20 as extreme as an APD. These criteria are used to ensure adequate capacity to
21 non-core customers. CWD has a recurrence interval of about 1-in-3 years.
22 Local areas have their own specific CWD temperature. Across the PG&E gas
23 system, the average daily mean CWD temperature is approximately 38 degrees
24 Fahrenheit. When analyzing each local transmission for adequate capacity, all
25 core customers are assumed to be at their CWD load, while non-core customers
26 are assumed to be at a reasonable, sustainable maximum load.

27 Most PG&E gas transmission systems are constrained by the APD design
28 criterion and all of PG&E's local transmission systems fully meet the APD and
29 CWD design criteria. A three-year forecast of APD demands is shown in
30 Table 3:

**TABLE 3
PACIFIC GAS AND ELECTRIC COMPANY
FORECAST OF CORE GAS DEMAND AND SUPPLY ON AN APD
(MMcf/DAY)**

Line No.		2008-09	2009-10	2010-11
1	ADP Core Demand	3,167	3,227	3,287
2	Firm Storage Withdrawal	1,104	1,104	1,104
3	Required Flowing Supply	2,063	2,123	2,183
4	Total APD Resources (to meet demands)	3,167	3,227	3,287

Notes:

- (1) Includes PG&E's Gas Procurement Department's and other Core Aggregator's core customer demands. APD planning criterion: system temperature on APD is 27 degrees F. PG&E now uses a system composite temperature based on six weather sites and this results in a 27 degree APD temperature that is roughly equivalent to the 29 degree APD temperature used in previous reports.
- (2) Includes supplies flowing under firm and as-available capacity, and capacity made available pursuant to supply diversion arrangements.
- (3) Core Firm Storage Withdrawal capacity includes 49 MMcfd contracted with an on-system independent storage provider.

1 G. Conclusion

2 In accordance with the requirements set forth by Decision 06-09-039, PG&E
3 has adequate backbone capacity to accommodate current and forecast demand
4 on the PG&E system. While PG&E has adequate backbone capacity in
5 aggregate, there may be instances in which an expansion of one of PG&E's
6 transportation paths will be beneficial to some or all of PG&E's customers, even
7 when total backbone system flows are within the guidelines established by the
8 Commission. Lastly, as more storage capacity is developed in northern
9 California, there may be a need to modify the capacity utilization guideline to
10 account for seasonal, rather than annual, gas demands.

**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

Aglet	Department of the Army	Northern California Power Association
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Anderson & Poole	Douglass & Liddell	PPL EnergyPlus, LLC
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Cardinal Cogen	Innercite	St. Paul Assoc.
Casner, Steve	International Power Technology	Sunshine Design
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General Order 96-B, Section IV**

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