

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
GAS (Corp ID 39)
Status of Advice Letter 4297G
As of September 16, 2020

Subject: Compliance Report on the Adequacy of Backbone Transmission Capacity Holdings and Capacity

Division Assigned: Energy

Date Filed: 08-21-2020

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Authorizing Documents: D0609039

Disposition:	Accepted
Effective Date:	09-20-2020

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

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PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
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To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
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- Date Filed
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- Effective Date of Filing
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Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

August 21, 2020

Advice 4297-G

(Pacific Gas and Electric Company ID U 39 G)

Public Utilities Commission of the State of California

Subject: Compliance Report on the Adequacy of Backbone Transmission Capacity Holdings and Capacity Utilization

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 slack capacity 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 Ordering Paragraph 3 in D.06-09-039 and to provide the California Public Utilities Commission ("Commission") with an update on PG&E's backbone transmission capacity utilization outlook. Ordering Paragraph 3 states:

3. The Pacific Gas and Electric Company and the Southern California Gas Company shall demonstrate in biennial advice letter filings to the Commission's Energy Division starting in 2008 that they hold adequate backbone transmission capacity and have slack capacity consistent with their proposals presented herein. The first filing is due July 1, 2008.

Background

In 2004, the Commission issued Rulemaking ("R.") 04-01-025 to investigate the adequacy of natural gas supplies and infrastructure to meet the long-term needs of the gas consumers in California. In D.06-09-039, the Commission determined that it was "comfortable with the total amount of firm backbone transmission capacity on both the PG&E and SoCal Gas systems."¹ To ensure that the utilities monitor the adequacy of their backbone capacity, the Commission required that the utility make biennial advice letter submittals, starting in 2008, to demonstrate that they have adequate backbone

¹ D.06-09-039, Finding of Fact 12.

capacity consistent with the showings made in Rulemaking 04-01-025. This advice letter is the seventh biennial submittal.

This submittal is submitted on August 21st instead of July 1st as permitted by letter of grant dated July 29, 2020 authorizing Pacific Gas and Electric Company's Request for Additional Extension of Time to Comply with Decision 06-09-039 Ordering Paragraph 3.

Summary of Report

Based on the information contained in the attached report, PG&E has adequate backbone transmission capacity to ensure that both current and forecast demand can be met based on the criteria adopted in D.06-09-039 through 2030.²

The adequacy of PG&E's backbone transmission capacity holdings to serve core and electric customers has historically been addressed in PG&E's Gas Transmission and Storage Rate Case Applications and Bundled 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.

The submittal would not increase any current rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

Protests

*****Due to the COVID-19 pandemic and the shelter at home orders, PG&E is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter to EDTariffUnit@cpuc.ca.gov and PGETariffs@pge.com*****

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than September 10, 2020, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

² In order to address the adequacy of PG&E's infrastructure to meet current and future demand, PG&E uses the demand forecasts based on the 2020 California Gas Report.

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

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

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this Tier 2 advice letter become effective on regular notice, September 20, 2020, which is 30 calendar days after the date of submittal.

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 the parties on the service list for R.04-01-025. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.



ADVICE LETTER SUMMARY

ENERGY UTILITY



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

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39G)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Kimberly Loo

Phone #: (415)973-4587

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: KELM@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 4297-G

Tier Designation: 2

Subject of AL: Compliance Report on the Adequacy of Backbone Transmission Capacity Holdings and Capacity Utilization

Keywords (choose from CPUC listing): Compliance

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted 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:

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date: 9/20/20

No. of tariff sheets: 0

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 proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

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

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Erik Jacobson, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

PACIFIC GAS AND ELECTRIC COMPANY

ATTACHMENT 1

**COMPLIANCE REPORT ON THE ADEQUACY OF
BACKBONE TRANSMISSION CAPACITY HOLDINGS AND
CAPACITY UTILIZATION**

SUBMITTED AUGUST 21, 2020



PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT 1
COMPLIANCE REPORT ON THE ADEQUACY OF
BACKBONE TRANSMISSION CAPACITY HOLDINGS AND
CAPACITY UTILIZATION

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1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **ATTACHMENT 1**
3 **COMPLIANCE REPORT ON THE ADEQUACY OF**
4 **BACKBONE TRANSMISSION CAPACITY HOLDINGS AND**
5 **CAPACITY UTILIZATION**

6 **A. Introduction**

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

15 D.06-09-039 required that:

16 The Pacific Gas and Electric Company and the Southern California Gas
17 Company shall demonstrate in biennial advice letter filings to the
18 Commission's Energy Division starting 2008 that they hold adequate
19 backbone transmission capacity and have slack capacity consistent with
20 their proposals presented herein.¹

21 In compliance with the Commission's direction, this filing updates the
22 analysis PG&E performed in Phase II of Gas Capacity Order Instituting
23 Rulemaking (R.04-01-025) and in PG&E's previous compliance filings.² This
24 updated assessment addresses PG&E's holding of backbone and storage
25 capacity to service bundled core customers and PG&E's electric generation
26 (EG) requirements (Section B), adequacy of the backbone transmission system
27 (Section E), and adequacy of the local transmission capacity (Section F).

28 **B. Adequacy of PG&E's Backbone Transmission Capacity Holdings**

29 Since 1998, PG&E's intrastate backbone transmission capacity holdings to
30 serve core customers have been determined through PG&E's Gas Transmission

1 See D.06-09-039, Ordering Paragraph 3, at p. 184.

2 PG&E previously submitted compliance filings in 2008, 2010, 2012, 2014, 2016 and 2018.

1 and Storage (GT&S) Rate Case Applications, also referred to as PG&E's Gas
2 Accords. The Gas Accord structure has provided stability in GT&S services,
3 while also providing, among other things, the opportunity for all participating
4 parties to evaluate PG&E's core backbone transmission and storage holdings.
5 In PG&E's 2019 GT&S Rate Case, the Commission approved the proposed core
6 backbone transmission holdings and a firm core storage holding for 2019-2022
7 in conjunction with the approval of the Natural Gas Storage Strategy. The
8 Commission authorized acquisition of storage capacity from the Independent
9 Storage Providers (ISP), firm intrastate and interstate pipeline capacity, and/or
10 firm peaking supply arrangements to meet the core planning standard.³ PG&E
11 expects to successfully acquire ISP storage capacity to meet the standard for
12 the 2020-2021 through the 2022-2023 winter periods. For bundled electric
13 customers, PG&E arranges intrastate backbone transmission capacity according
14 to its Natural Gas Procurement Limits, filed as part of Appendix C: Procurement
15 Limits and Ratable Rates of PG&E's Bundled Procurement Plan (BPP). PG&E's
16 2014 BPP was approved in D.15-10-031 on October 22, 2015. PG&E's BPP
17 was filed as a distinct phase of the biennial Long-Term Procurement Plan
18 (LTPP) proceedings, and each BPP superseded those in previous LTPPs.

19 PG&E believes that the combined General Rate Case (GRC) proceedings
20 and the BPP are the appropriate forums in which to address the adequacy of
21 PG&E's intrastate contractual holdings for the core and bundled-electric
22 portfolios, respectively.

23 **C. Backbone Capacity Utilization**

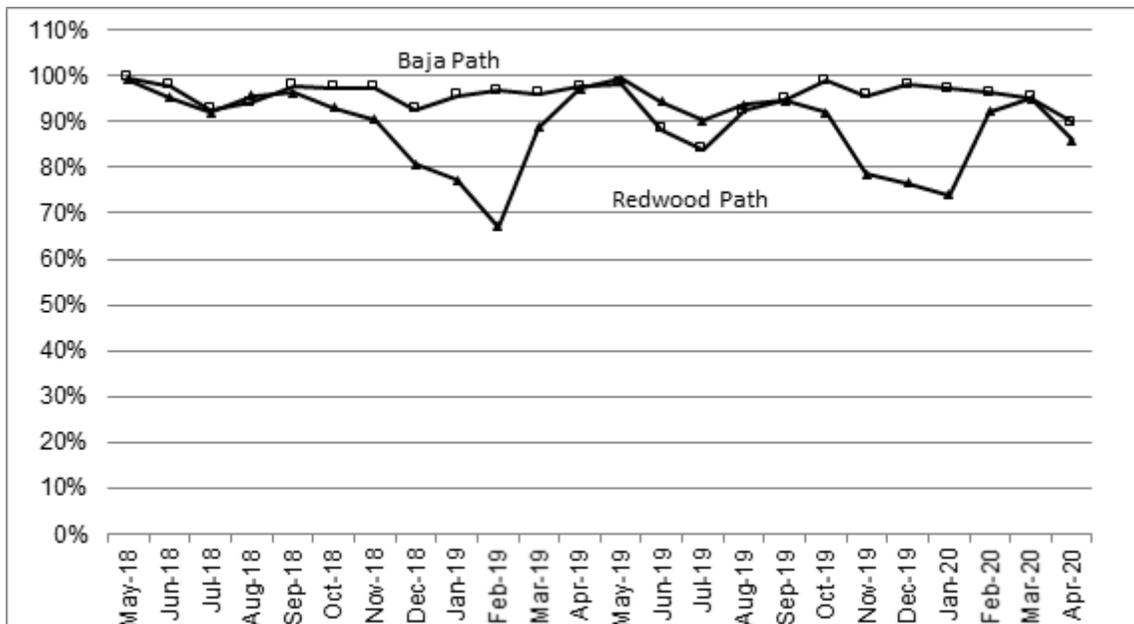
24 Additional pipeline capacity over and above average demand levels
25 provides significant value to customers even in years without pipeline
26 maintenance outages, supply disruptions, or increased demand. Additional
27 pipeline capacity allows the market flexibility to move purchases between receipt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

3 See D.06-07-010, Ordering Paragraph 1, at p. 36.

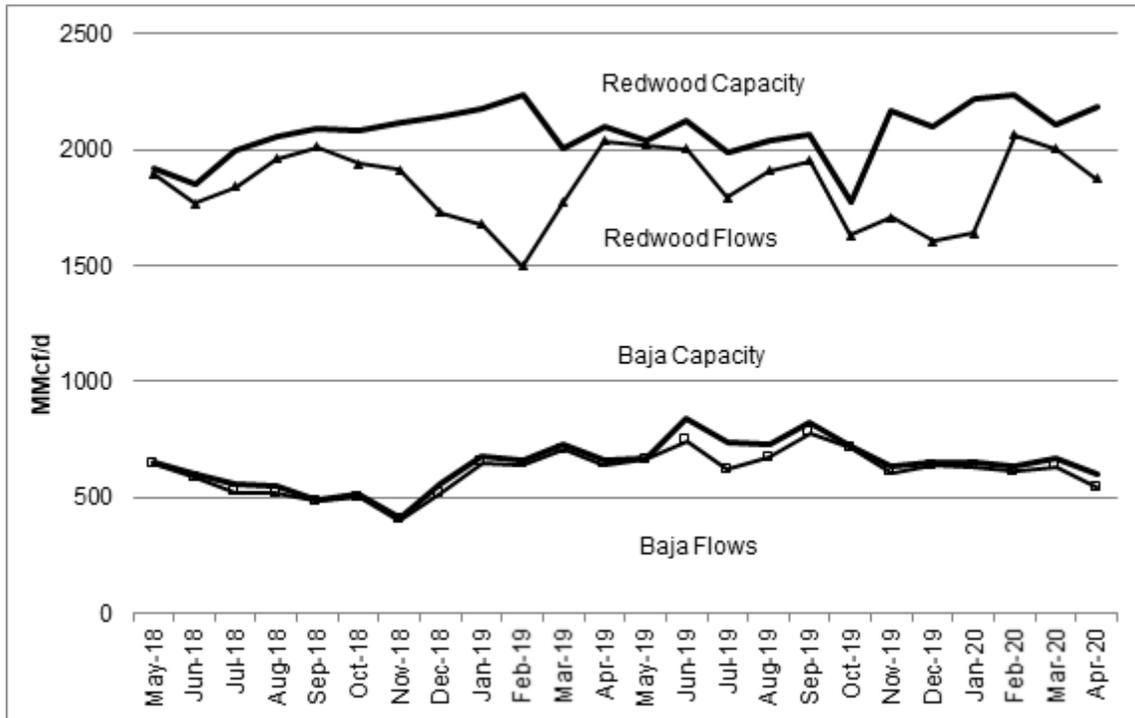
1 Figures 1, 2, and 3 below show backbone capacity utilization during the
 2 24-month period ending April 30, 2020. The Redwood Path continued to be the
 3 preferred supply path as shippers used it to transport gas from the Rocky
 4 Mountains on the Ruby Pipeline and from Canada on Gas Transmission
 5 Northwest to PG&E’s system. The Redwood Path had high utilization, at times
 6 between 90 and 99 percent during the traditional storage injection season (April
 7 through October).

8 The Baja Path, which shippers used to transport gas from Texas and the
 9 U.S. Southwest on the El Paso Natural Gas and Transwestern pipelines, had
 10 slightly higher utilization rates than the Redwood Path during the past
 11 24 months. Baja utilization has been substantially higher—up to 99 percent—
 12 compared to historical usage. The higher utilization is due to a combination of
 13 higher demands and an increase in temporary reductions in Baja operating
 14 capacity for planned maintenance outages.

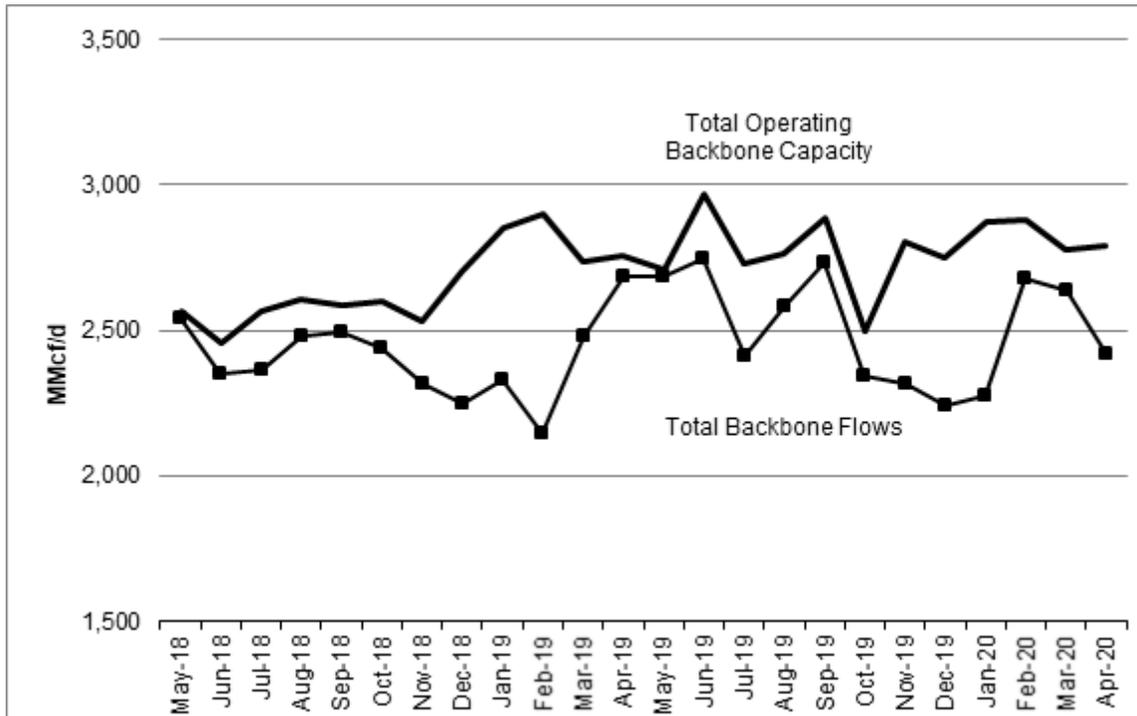
FIGURE 1
PERCENT BACKBONE CAPACITY UTILIZATION BY PATH
MAY 2018 – APRIL 2020



**FIGURE 2
BACKBONE CAPACITY AND FLOW BY PATH (MMCF/D)
MAY 2018 – APRIL 2020**



**FIGURE 3
TOTAL BACKBONE CAPACITY AND FLOWS (MMCF/D)
MAY 2018 – APRIL 2020**



1 A sufficient backbone capacity margin ensures that the marginal supply
2 source at the California border is available to compete against any other supply
3 source that might otherwise drive a higher price. A margin of capacity also
4 facilitates the injection of gas into storage. This storage injection occurs in
5 addition to end-use demand for gas on the backbone system, resulting in high
6 pipeline utilization at certain times of the year.

7 The market takes advantage of the extra backbone capacity to time the
8 injection and withdrawal of gas to and from the storage fields. Gas is typically
9 bought for injection at times when its current price is lower than its anticipated
10 future value, when it will be withdrawn. Without the extra backbone capacity on
11 PG&E’s system, customers would be significantly constrained in their ability to
12 time the injection of gas into storage fields. The price of natural gas can vary
13 substantially from month to month and the lowest prices are usually seen in
14 the spring and fall months. It is important to maintain sufficient backbone
15 capacity for the market to make large injections in months when natural gas
16 prices are lower.

1 **D. Demand Forecasts**

2 To assess the adequacy of PG&E’s infrastructure to meet current and future
3 demand, PG&E used the demand forecasts in the 2020 California Gas Report
4 (CGR). The CGR provides a comprehensive, long-term outlook for natural gas
5 requirements for both core and noncore markets. Evaluating PG&E’s
6 infrastructure using the CGR forecasts provides a valid assessment of the
7 adequacy of PG&E’s infrastructure to meet current and future demand through
8 2030.

9 The off-system demand forecast presented in this analysis is the same as
10 that presented in the 2020 CGR for the years 2020-2035. PG&E reduced the
11 off-system demand in 2023 and 2024 and eliminated it entirely in 2025-2035 so
12 as to include only PG&E’s actual currently booked off-system contracts for these
13 years. PG&E anticipates its future off-system contracts will be short-term and/or
14 discounted contracts. PG&E would expand backbone capacity to serve the
15 off-system market only if it had additional customers willing to pay full tariff rates
16 under long term-contracts.

17 PG&E developed the 1-in-10-year Cold and Dry Forecast using the same
18 “Weather Vintage” methodology described in PG&E’s analysis of backbone
19 capacity adequacy in Phase II of R.04-01-025. This same methodology was
20 also used in the CGR for the high-demand forecasts.

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

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

33 Table 1 below shows the transmission capacities of the PG&E backbone
34 system. Table 2 compares the amount of backbone capacity to forecasted

1 demand on the PG&E system from 2021 to 2030. Based on this demand
 2 forecast, PG&E expects average annual backbone capacity utilization to be
 3 65 percent or less from 2021 through 2024, and 55 percent or less from 2025
 4 through 2030, indicating compliance with the 80-90 percent annual utilization
 5 standard established in D.06-09-039. Note that the higher annual utilization
 6 rates in the early years of the forecast period stem from the currently booked
 7 contracts for off-system service discussed above. While there is uncertainty in
 8 this forecast, the ten-year window provides sufficient lead-time for system
 9 enhancements to meet longer-term growth should the forecast of system use
 10 change over time.

11 Other than the increase in demand arising from currently booked off-system
 12 contracts, PG&E estimates that utilization of its backbone system through 2030
 13 will be gradually decreasing.

**TABLE 1
 PG&E BACKBONE TRANSMISSION CAPACITY (MMCF/D)**

Line No.	Transmission Path	Firm Receipt Capacity ^(a)
1	Silverado Path	35
2	Baja Path	960
3	Redwood Path	2,060
4	Total	3,055

(a) Firm Receipt Capacities are those currently approved for use within PG&E

**TABLE 2
PG&E BACKBONE CAPACITY UTILIZATION (MMCF/D)**

Line No.	Year	Average Demand ^(a)	1-in-10 Cold and Dry Year Demand ^(a)	Backbone Receipt Capacity ^(b)	Capacity Utilization Cold and Dry Year Demand
1	2021	1,924	2,001	3,055	65%
2	2022	1,909	1,973	3,055	65%
3	2023	1,882	1,942	3,055	64%
4	2024	1,733	1,793	3,055	59%
5	2025	1,612	1,673	3,055	55%
6	2026	1,593	1,653	3,055	54%
7	2027	1,573	1,632	3,055	53%
8	2028	1,573	1,633	3,055	53%
9	2029	1,561	1,620	3,055	53%
10	2030	1,546	1,604	3,055	53%

(a) Average Demands and 1-in-10 Cold and Dry Year Demands are based on the 2020 California Gas Report, except off-system contracts are reduced in 2023 and 2024 and are excluded entirely in 2025-2030 so as to include only PG&E's actual currently booked off-system contracts for those years.

(b) Backbone Receipt Capacity is taken from what is currently approved for use within PG&E and is detailed in Table 1 above.

1 Table 3 below updates the analysis PG&E presented in the 2019 GT&S
2 Rate Case for determining the capacity required to effectively and safely operate
3 its system during a cold peak day event. The core demand is the forecast
4 demand anticipated during a 1 day in 10 year peak day event. The noncore
5 non-EG demand is the average forecast demand for the 3-winter months from
6 the 2020 CGR. PG&E forecast the peak day demand for EG in Table 3 by
7 taking the 95th percentile of historical winter EG demands from 2016 through
8 2020.

9 There is a very high level of uncertainty in forecasting peak day EG demand.
10 Daily EG demand in PG&E's service area is not only dependent on conditions in
11 Northern California, but also Southern California and throughout the West
12 including availability of generation plants, local demand for gas in other sectors
13 and natural gas prices. Taking the 95th percentile represents a reasonable
14 balance between over planning capacity, i.e. planning capacity based on the
15 highest peak day demand, and not having adequate capacity to supply EG
16 facilities that would be needed to ensure the reliability of the electric system.

17 PG&E is forecasting to have adequate resources available to meet forecast
18 peak day demands through January 2023, the remaining term of the 2019 GT&S

1 Rate Case. PG&E will continue to use the available withdrawal capacity from
 2 Los Medanos (even as it is classified as a gas production only facility) until a
 3 final determination is made by the Commission that PG&E has adequate
 4 capacity at McDonald Island to meet expected demands and PG&E sells or
 5 decommissions the facility.

**TABLE 3
 FORECAST OF DEMANDS FOR CAPACITY AND THE AVAILABLE CAPACITY
 AS ADOPTED IN D.19-09-025 NATURAL GAS STORAGE STRATEGY**

Line No.	Forecast	2020-2021	2021-2022	2022-2023
1	Core Peak Day Demand ^(a)	2,561	2,571	2,580
2	Noncore Non- EG Demand ^(b)	550	565	552
3	EG, Including SMUD ^(c)	894	894	894
4	Off System and Shrinkage ^(d)	128	128	128
5	Inventory Management	300	300	300
6	Reserve Capacity	250	250	250
7	Total Demands	4,683	4,708	4,704
8	Northern Supply Capacity	2,700	2,700	2,700
9	Southern Supply Capacity	1,160	1,160	1,160
10	PG&E McDonald Island and Los Medanos Storage ^(e)	960	860	810
11	California Production	35	35	35
12	Total Supply	4,855	4,755	4,705
13	Short Fall () or surplus	172	47	1

- (a) Core Demand calculated for 34.2 degrees F system composite temperature taken from the 2020 California Gas Report.
- (b) Noncore Non-EG demand is the average daily winter (December) demand under 1-in-10 cold-and-dry conditions from the 2020 California Gas Report
- (c) EG, including SMUD represents the 95th percentile of daily demand Nov 1 - Mar 31 for winters 2016-2017 through 2019-2020 from PG&E's Pipe Ranger website
- (d) G-XF Contracts (77,704 million cubic feet per day) and Shrinkage
- (e) Forecast capacity of McDonald Island and the capacity available from Los Medanos while maintaining at least 50 percent of the inventory in Los Medanos

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

7 All of PG&E's local gas transmission systems are designed to provide
 8 adequate capacity under all weather conditions including extreme cold weather.
 9 There are two cold weather design criteria: Cold Winter Day (CWD) and
 10 Abnormal Peak Day (APD). The CWD design criterion ensures adequate
 11 capacity to meet all estimated demands, including noncore demands. The APD
 12 design criterion ensures adequate capacity to meet estimated peak core

1 customer demands alone. (APD assumes that all noncore customers are
2 curtailed in order to support service to core customers.) PG&E is not proposing
3 any changes to these standards.

4 The CWD design criterion is based on a cold event that has a recurrence
5 interval of one day in two years. Each local planning area has its own specific
6 CWD temperature. Across the PG&E gas system, the average daily system
7 weighted mean CWD temperature is approximately 36.9 degrees Fahrenheit (F).
8 When analyzing each local transmission system for adequate capacity, all core
9 customers are assumed to be at their CWD load, while noncore customers are
10 assumed to be at a reasonable, sustainable maximum load.

11 The APD design criterion is based on an extremely cold weather event
12 having a recurrence interval of one day in 90 years. This corresponds to a
13 composite temperature of about 28.3 degrees F across the PG&E gas system.
14 Each local planning area has its own specific APD temperature.

15 If core supplies are insufficient to meet core demand, PG&E can divert gas
16 from noncore customers, including EG customers, to serve core demand.
17 PG&E's tariffs contain diversion and Emergency Flow Order non-compliance
18 charges that are designed to induce the noncore market to curtail its use of gas,
19 if required. During the cold weather event in December 2013, which was close
20 to a 1-day-in-10-year event, total noncore demand reached 2.5 Bcf/day.
21 However, some noncore customers were curtailed due to local capacity
22 constraints. PG&E would attempt to serve noncore demand during an APD, but
23 only to the extent such service was compatible with maintaining uninterrupted
24 service to the core load.

25 All of PG&E's local transmission systems fully meet the APD and CWD
26 design criterion. Most local transmission systems are constrained by the APD
27 design criterion because they are sized to serve only core demand on an APD.
28 On systems where noncore customers are predominant, CWD is the
29 constraining design criterion rather than APD.

30 The APD core forecast is developed using the observed relationship
31 between historical daily weather and core usage data. This relationship is then
32 used to forecast the core load under APD conditions. A 3-year forecast of APD
33 demands is shown in Table 4. This table demonstrates the adequacy of existing
34 supplies to meet core APD demands.

**TABLE 4
FORECAST OF CORE GAS DEMAND AND SUPPLY
ON AN ABNORMAL PEAK DAY**

Line No.	APD Forecast	2021-2022	2022-2023	2023-2024
1	APD Core Demand ^(a)	3,031	3,043	3,055
2	Independent Storage Provider Withdrawal ^(b)	2,190	2,190	2,190
3	Maximum Firm Flowing Supply ^(c)	3,055	3,055	3,055
4	Total Resources to Meet Demands ^(d)	4,067	4,067	4,067

- (a) Includes PG&E's Core Gas Supply Department and other Core Aggregator's core customer demands. APD core demand forecast is calculated for 28.3 degrees F system composite temperature, corresponding to 1-in-90-year cold temperature event. PG&E uses a system composite based on six weather sites.
- (b) The Independent Storage Provider Withdrawal is based on information provided by the Independent Storage Providers to PG&E.
- (c) The Maximum Firm Flowing Supply includes firm Redwood and Baja capacities and nominal amounts of California gas production. These values are those currently approved for use within PG&E.
- (d) The Total Resources to Meet Demand (Line No. 4) are less than the sum of Independent Storage Provider Withdrawal (Line No. 2) and Maximum Firm Flowing Supply (Line No. 3) because PG&E's system cannot simultaneously accommodate all flowing supplies and all storage withdrawals.

1 **G. Conclusion**

2 In accordance with the requirements set forth by D.06-09-039, PG&E has
3 adequate backbone capacity to accommodate current and forecast demand on
4 the PG&E system through 2030.

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

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Redwood Coast Energy Authority
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	Regulatory & Cogeneration Service, Inc.
Alta Power Group, LLC	Energy Management Service	SCD Energy Solutions
Anderson & Poole	Engineers and Scientists of California	
Atlas ReFuel	GenOn Energy, Inc.	SCE
BART	Goodin, MacBride, Squeri, Schlotz & Ritchie	SDG&E and SoCalGas
Barkovich & Yap, Inc.	Green Power Institute	SPURR
California Cotton Ginners & Growers Assn	Hanna & Morton	San Francisco Water Power and Sewer
California Energy Commission	ICF	Seattle City Light
California Public Utilities Commission	IGS Energy	Sempra Utilities
California State Association of Counties	International Power Technology	Southern California Edison Company
Calpine	Intestate Gas Services, Inc.	Southern California Gas Company
Cameron-Daniel, P.C.	Kelly Group	Spark Energy
Casner, Steve	Ken Bohn Consulting	Sun Light & Power
Cenergy Power	Keyes & Fox LLP	Sunshine Design
Center for Biological Diversity	Leviton Manufacturing Co., Inc.	Tecogen, Inc.
Chevron Pipeline and Power	Los Angeles County Integrated	TerraVerde Renewable Partners
City of Palo Alto	Waste Management Task Force	Tiger Natural Gas, Inc.
City of San Jose	MRW & Associates	TransCanada
Clean Power Research	Manatt Phelps Phillips	Troutman Sanders LLP
Coast Economic Consulting	Marin Energy Authority	Utility Cost Management
Commercial Energy	McKenzie & Associates	Utility Power Solutions
Crossborder Energy	Modesto Irrigation District	Water and Energy Consulting Wellhead
Crown Road Energy, LLC	NLine Energy, Inc.	Electric Company
Davis Wright Tremaine LLP	NRG Solar	Western Manufactured Housing
Day Carter Murphy	Office of Ratepayer Advocates	Communities Association (WMA)
Dept of General Services	OnGrid Solar	Yep Energy
Don Pickett & Associates, Inc.	Pacific Gas and Electric Company	
Douglass & Liddell	Peninsula Clean Energy	