
2000
California
Gas
Report

**PREPARED BY THE
CALIFORNIA GAS UTILITIES**

2000 CALIFORNIA GAS REPORT

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FOREWORD

FOREWORD

The 2000 California Gas Report presents a comprehensive outlook for natural gas requirements and supplies for California through the year 2020. This report is prepared in even-numbered years, followed by a supplemental report in odd-numbered years, in compliance with California Public Utilities Commission Decision D.95-01-039. The projections in the California Gas Report are for long-term planning and do not necessarily reflect the day-to-day operational plans of the utilities.

The report is organized into three sections: Executive Summary, Northern California, and Southern California. The Executive Summary provides statewide highlights and consolidated tables on supply and demand. The Northern California section provides detail on requirements and supplies of natural gas for Pacific Gas and Electric Company (PG&E) the Sacramento Municipal Utility District (SMUD) and Wild Goose Storage Inc. The Southern California section shows similar detail for Southern California Gas Company (SoCalGas), the City of Long Beach Gas and Electric Department, San Diego Gas & Electric Company, and the City of Los Angeles Department of Water and Power.

Each participating utility has provided a narrative explaining its assumptions and outlook for natural gas requirements and supplies, including tables showing data on natural gas availability by source, with corresponding tables for gas requirements (demand) by customer class. Separate sets of these tables are presented for average, cold, and hot temperature year conditions. Any forecast, however, is subject to considerable uncertainty. Changes in the economy, energy and environmental policies, natural resource availability, and the continually evolving restructuring of the gas and electric industries can significantly affect the reliability of these forecasts. The further into the future a forecast extends, the more susceptible it is to inaccuracy. This report should not be used by readers as a substitute for full, detailed analysis of their own specific energy requirements.

A Working Committee, comprised of representatives from each utility, was responsible for compiling the report. A General Committee composed of officers from the participating utilities was available to provide policy guidance. The membership of the committees is listed in the Respondents section at the end of this report.

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

DEMAND OUTLOOK

California natural gas demand, including volumes bypassing utility systems, is expected to grow at an annual average rate of 0.5% from 2000 to 2020. This forecast is consistent with projections of population and employment growth rates.

Load growth of approximately 1% is expected for the Residential and Commercial and sectors, and more modest growth of 0.6% is estimated for the industrial sector.

Electric Generation (EG) demand is expected to decline due to more electric power generation outside of the state and efficiencies in the operation of gas fired generators. The NGV market continues to have the highest growth potential due to an optimistic assessment of the changing regulatory environment associated with anticipated clean air policies over the next two decades.

GAS STRATEGY

In January 1998, the Commission opened an Order Instituting Rulemaking (R.98-01-011) to assess the natural gas regulatory and market framework and to adopt market-oriented reforms. In July 1999, the Commission issued a decision identifying various promising options for changing the natural gas regulatory structure and opened a companion Order Instituting Investigation (I.99-07-003) to consider the costs and benefits of these promising options.

In Northern California, many of the promising options were already incorporated in PG&E's Gas Accord Settlement, implemented in March 1998. The remaining promising options were addressed in two settlements, which were filed with the Commission in October 1999 and January 2000, and approved by the Commission in decisions issued in January 2000 and May 2000.

In Southern California, various settlements were filed with the Commission between December 1999 and April 2000. These settlements were the subject of evidentiary hearings which concluded in June 2000. A Commission decision is expected by early 2001.

FOCUS ON EFFICIENCY AND ENVIRONMENTAL QUALITY

California utilities continue to focus on Customer Energy Efficiency (CEE) and other Demand-Side Management (DSM) programs in their utility electric and gas resource plans.

In addition, California utilities actively support Clean Air Act amendments that seek to improve air quality by reducing fuel oil use in electric generation power plants and by marketing natural gas vehicles.

The increasing awareness of natural gas as a clean, economical fuel continues to help position utilities to meet environmentally acceptable energy requirements of the future.

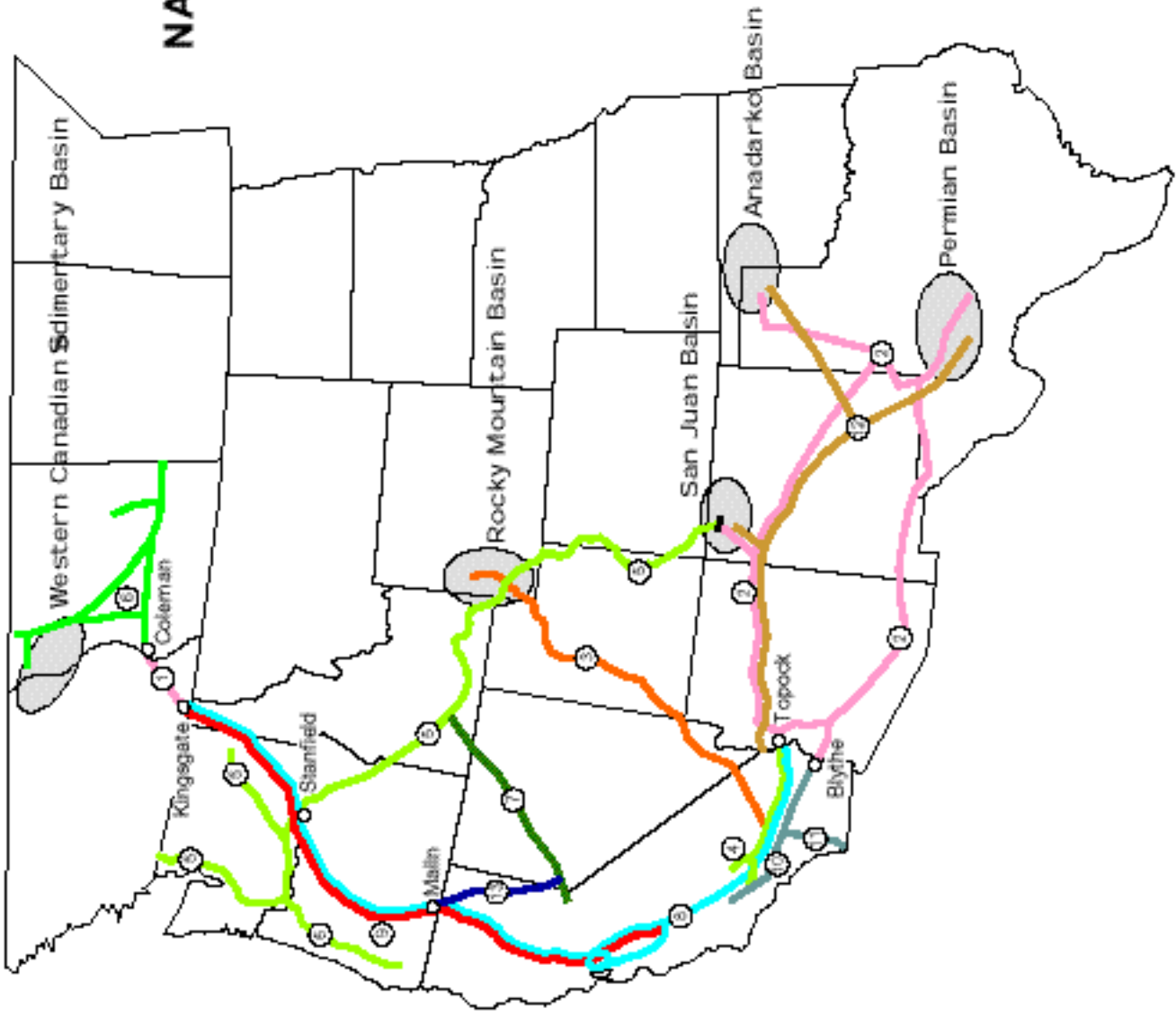
SUPPLY OUTLOOK/PIPELINE CAPACITY

California's existing gas supply portfolio is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources (the Permian, Anadarko, and San Juan Basins), the Rocky Mountains, and Canada. The map on the following page shows the locations of these supply sources and of the natural gas pipelines serving California.

Additional pipeline capacity and open access have contributed to long term supply availability and gas-on-gas competition. Interstate pipelines currently serving California include El Paso Natural Gas Company (El Paso), Kern River Transmission Company (Kern River), Mojave Pipeline Company (Mojave), PG&E Gas Transmission-Northwest (PG&E GT-NW), Transwestern Pipeline Company (Transwestern), and Tuscarora Pipeline.

WESTERN NORTH AMERICAN NATURAL GAS PIPELINES
(NottoScale)

- ① TCPL BC System (ANG)
- ② El Paso
- ③ Kern River
- ④ Mojave
- ⑤ Northwest
- ⑥ TCPL Alberta System (NOVA)
- ⑦ Paiute
- ⑧ PG&E
- ⑨ PG&E GT-NW
- ⑩ SoCalGas
- ⑪ SDG&E
- ⑫ Transwestern
- ⑬ Tuscarora



STATEWIDE CONSOLIDATED SUMMARY TABLES

The consolidated summary tables and charts on the following pages show the statewide aggregations of gas supplies and gas requirements (demand). Supplies are shown by source in tabular form. The gas requirements by customer classification are in tabular form as well as graphical form.

Gas sales and transportation volumes are consolidated under the general category of system gas requirements. Details of gas transportation for individual utilities are given in the tabular data for northern California and southern California. The wholesale category includes the City of Long Beach Gas and Electric Department, San Diego Gas & Electric Company, Southwest Gas Corporation, Los Angeles Department of Water and Power, and the Cities of Coalinga and Palo Alto. Wholesale gas service to the City of Vernon is scheduled to commence during the forecast period.

Some columns may not sum precisely because of modeling accuracy and rounding differences, and do not imply curtailments.

STATEWIDE TOTAL SUPPLY SOURCES AND REQUIREMENTS MMCF/DAY

Total California Supply Sources	2000	2001	2005	2010	2015	2020
California Sources	410	410	410	410	410	410
Out-of-State	4,484	4,457	4,151	4,322	4,638	4,956
Net Withdrawal/(Injection)	0	0	0	0	0	0
Utility Total	4,894	4,867	4,561	4,732	5,048	5,366
Pipeline Bypass (1)	789	797	897	959	949	924
Total	5,683	5,664	5,458	5,691	5,997	6,290

Total California Requirements	2000	2001	2005	2010	2015	2020
Residential	1,295	1,309	1,367	1,449	1,532	1,631
Commercial	484	491	509	524	531	537
Natural Gas Vehicles	9	15	33	117	261	370
Industrial	960	982	1,020	1,040	1,048	1,075
Electric Generation (2)	1,594	1,497	1,160	1,118	1,164	1,211
Enhanced Oil Recovery	24	24	24	20	20	20
Wholesale/Resale	424	448	351	363	386	406
Company Use and Unaccounted For	102	102	96	100	107	115
Utility Total	4,892	4,868	4,560	4,731	5,049	5,365
Pipeline Bypass (1)	789	797	897	959	949	924
Total	5,681	5,665	5,457	5,690	5,998	6,289

NOTES:

(1) Bypass is defined in the Glossary.

(2) Includes utility and non-utility generation.

Executive Summary

STATEWIDE ANNUAL GAS SUPPLY SOURCES - TAKEN MMCF/DAY

Northern California	2000	2001	2005	2010	2015	2020
California Sources (1)	140	140	140	140	140	140
Out-of State	1,929	1,970	2,056	2,190	2,402	2,603
Net Withdrawal/(Injection)	0	0	0	0	0	0
Utility Total	2,069	2,110	2,196	2,330	2,542	2,743
Pipeline Bypass (2)	366	366	366	366	366	366
Northern California Total	2,435	2,476	2,562	2,696	2,908	3,109

Southern California	2000	2001	2005	2010	2015	2020
California Sources (1)	270	270	270	270	270	270
Out-of-State	2,555	2,487	2,095	2,132	2,236	2,353
Net Withdrawal/(Injection)	0	0	0	0	0	0
Utility Total	2,825	2,757	2,365	2,402	2,506	2,623
Pipeline Bypass (2)	423	431	531	593	583	558
Southern California Total	3,248	3,188	2,896	2,995	3,089	3,181

NOTES:

(1) Includes utility purchases and exchange/transport gas.

(2) Bypass is defined in the Glossary.

STATEWIDE ANNUAL GAS REQUIREMENTS ⁽¹⁾ MMCF/DAY

Northern California	2000	2001	2005	2010	2015	2020
Residential	603	611	642	684	726	781
Commercial-Core	219	222	227	228	222	221
Natural Gas Vehicles-Core	1	2	7	39	96	137
Natural Gas Vehicles-Noncore	1	2	9	53	132	192
Industrial-Noncore	510	524	563	592	621	653
Wholesale/Resale	11	12	12	12	13	13
SMUD Electric Generation	59	64	78	78	78	78
Electric Generation (2)	607	617	598	581	588	594
Enhanced Oil Recovery	0	0	0	0	0	0
Southwest Gas Exchange	9	9	9	9	9	9
Company Use and Unaccounted For	47	48	50	53	58	64
Utility Total	2,067	2,111	2,195	2,329	2,543	2,742
Pipeline Bypass (3)	366	366	366	366	366	366
Northern California Total	2,433	2,477	2,561	2,695	2,909	3,108
Southern California						
	2000	2001	2005	2010	2015	2020
Residential	692	698	725	765	806	850
Commercial-Core	194	197	209	222	234	242
Commercial-Noncore	71	72	73	74	75	74
Natural Gas Vehicles-Core	7	11	17	25	33	41
Industrial-Core	50	49	49	48	48	48
Industrial-Noncore	400	409	408	400	379	374
Wholesale/Resale	404	427	330	342	364	384
Electric Generation	928	816	484	459	498	539
Enhanced Oil Recovery - Steaming	24	24	24	20	20	20
Company Use and Unaccounted For	55	54	46	47	49	51
Utility Total	2,825	2,757	2,365	2,402	2,506	2,623
Pipeline Bypass (3)	423	431	531	593	583	558
Southern California Total	3,248	3,188	2,896	2,995	3,089	3,181

NOTES:

(1) Includes transportation gas.

(2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.

(3) Bypass is defined in the Glossary.

STATEWIDE SOURCES AND DISPOSITION

The Statewide Sources and Disposition Summary is intended to complement the existing five-year recorded data tables included in the tabular data sections for each utility.

The information shown on the following tables shows by customer class the composition of supplies from both out-of-state and California sources and is based on the utilities' accounting records and on available gas nomination and preliminary gas transaction information obtained daily from customers or their appointed agents and representatives. It should be noted that data on daily gas nominations are frequently subject to reconciling adjustments. In addition, some of the data are based on allocations and assignments which, by necessity, rely on estimated information. These tables have been updated to reflect the most current information.

Some columns may not sum exactly because of factored allocation and rounding differences, and do not imply curtailments.

2000 California Gas Report
Recorded 1995 Statewide Sources and Disposition Summary
MMcf/day

	California Sources	El Paso	Trans-western	PG&E GT-NW/PG&E	Kern River	Mojave	Other ⁽¹⁾	Total
<u>Southern California Gas Company</u>								
Core (2)	145	478	233	16	1	0	13	887
Noncore Commercial/Industrial	30	177	35	82	48	6	(29)	350
EG (3)	74	437	89	199	119	17	0	935
EOR	3	21	4	9	6	1	(1)	43
Wholesale/Resale (4)	28	169	35	75	46	6	(16)	343
Total	280	1,282	397	382	220	31	(34)	2,557
<u>Pacific Gas and Electric Company</u>								
Core	82	150	4	535	0	0	1	772
Noncore Commercial/Industrial (5)	90	50	14	502	76	0	20	752
UEG	4	99	65	182	3	0	0	353
EOR (6)	*	*	*	*	*	*	*	*
Wholesale/Resale	0	0	1	9	0	0	1	11
Total	175	299	84	1,228	78	0	22	1,886
<u>Other Northern California</u>								
Core (7)	0	0	0	0	0	0	10	10
<u>Non-Utility Gas Deliveries</u>								
Direct Sales/Bypass	312	1	9	0	363	298	0	983
TOTAL SUPPLIER	767	1,582	490	1,610	661	329	(2)	5,437
NOTES:								
(1) Includes storage withdrawals.								
(2) Includes NGV volumes.								
(3) EG includes UEG, COGEN, and EOR Cogen.								
(4) Includes SDG&E data as shown.								
<u>San Diego Gas & Electric Company</u>								
Core	11	57	17	34	1	0	1	121
Noncore Commercial/Industrial	3	44	13	8	0	0	0	68
UEG	10	49	14	32	1	0	1	107
Total	24	150	44	73	2	0	3	295

(5) Includes non-utility electric generation.

(6) Volumes are included in Noncore Commercial/Industrial.

(7) Includes customers served by Southwest Gas Corp. and Avista.

2000 California Gas Report
Recorded 1997 Statewide Sources and Disposition Summary
MMcf/day

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Executive Summary

2000 California Gas Report Recorded 1998 Statewide Sources and Disposition Summary MMcf/day

	California Sources	El Paso	Trans-western	PG&E GT-NW/PG&E	Kern River	Mojave	Other ⁽¹⁾	Total
<u>Southern California Gas Company</u>								
Core (2)	81	589	246	52	23	34	(32)	993
Noncore Commercial/Industrial EG (3)	60	177	107	69	50	7	(30)	440
EOR	4	11	7	4	3	0	0	29
Wholesale/Resale (4)	56	166	100	64	47	7	(17)	423
Total	298	1,224	631	299	204	60	(79)	2,636
<u>Pacific Gas and Electric Company</u>								
Core	13	103	102	595	44	0	0	858
Noncore Commercial/Industrial (6)	128	182	33	577	34	0	20	974
UEG	3	46	40	230	15	0	8	343
EOR (7)	*	*	*	*	*	*	*	*
Wholesale/Resale	3	4	4	8	3	0	0	22
Total	147	334	181	1,410	97	0	28	2,197
<u>Other Northern California</u>								
Core (8)	0	0	0	0	0	0	11	11
<u>Non-Utility Gas Deliveries</u>								
Direct Sales/Bypass	407	0	0	0	337	264	8	1,016
TOTAL SUPPLIER	852	1,558	812	1,709	638	324	(32)	5,860
NOTES:								
(1) Includes storage withdrawals.								
(2) Includes NGV volumes.								
(3) EG includes UEG, COGEN, and EOR Cogen.								
(4) Includes SDG&E data as shown.								
<u>San Diego Gas & Electric Company</u>								
Core	14	62	28	22	0	0	9	135
Noncore Commercial/Industrial	8	68	31	14	0	0	5	126
UEG	17	70	33	25	0	0	12	157
Total	39	200	92	61	0	0	26	418

(5) Includes non-utility electric generation.

(6) Volumes are included in Noncore Commercial/Industrial.

(7) Includes customers served by Southwest Gas Corp. and Avista.

(8) Includes customers served by Southwest Gas Corp., Avista and Tuscarora.

2000 California Gas Report
Recorded 1999 Statewide Sources and Disposition Summary
MMcf/day

	California Sources	El Paso	Trans-western	PG&E GT-NW/PG&E	Kern River	Mojave	Other ⁽¹⁾	Total
<u>Southern California Gas Company</u>								
Core (2)	97	557	276	44	19	47	(23)	1,018
Noncore Commercial/Industrial	59	175	87	48	49	12	18	448
EG (3)	117	349	173	95	98	25	0	856
EOR	3	10	5	3	3	1	0	25
Wholesale/Resale (4)	55	164	81	45	46	12	11	413
Total	330	1,255	622	235	215	97	6	2,761
<u>Pacific Gas and Electric Company</u>								
Core	8	134	76	595	62	0	0	875
Noncore Commercial/Industrial(6)	134	196	52	824	28	0	31	1,265
UEG	6	19	12	46	16	0	3	103
EOR (7)	*	*	*	*	*	*	*	*
Wholesale/Resale	3	4	3	5	4	0	0	19
Total	151	353	143	1,470	110	0	34	2,262
<u>Other Northern California</u>								
Core (8)	0	0	0	0	0	0	10	11
<u>Non-Utility Gas Deliveries</u>								
Direct Sales/Bypass	508	0	0	0	296	294	0	1,098
TOTAL SUPPLIER	989	1,608	765	1,705	621	391	51	6,132
<u>San Diego Gas & Electric Company</u>								
Core	12	70	33	29	0	0	5	148
Noncore	7	119	58	15	0	0	3	201
Total	19	188	91	43	0	0	8	349

NOTES:

- (1) Includes storage withdrawals.
- (2) Includes NGV volumes.
- (3) EG includes UEG, COGEN, and EOR Cogen.
- (4) Includes DGN volumes and SDG&E data as shown.

- (5) Under PG&E's Gas Accord structure implemented in 1998, it became possible to make purchases at a Citygate point. Since the source of Citygate purchases cannot be readily determined, any Core, UEG or Wholesale Citygate purchases have been distributed between the other sources.
- (6) Includes non-utility electric generation.
- (7) Volumes are included in Noncore Commercial/Industrial.
- (8) Includes customers served by Southwest Gas Corp., Avista and Tuscarora.

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NORTHERN CALIFORNIA

INTRODUCTION

Pacific Gas and Electric Company (PG&E) provides natural gas service to 3.4 million residential customers and 200,000 businesses in northern and central California. In addition to serving residential, commercial, industrial, and enhanced oil recovery (EOR) markets, PG&E provides gas transportation service to a variety of gas-fired electric generation plants in its service area. Other wholesale distribution systems, which receive gas transportation service from PG&E, serve a small portion of the gas customers in the region. PG&E's customers are located in 37 counties from south of Bakersfield to north of Redding, with high concentrations in the San Francisco Bay Area and the Sacramento and San Joaquin valleys.

The forecast for this report covers 2000 through 2020. However, as a matter of convenience, the tabular data at the end of the section show only the years 2000 through 2005 and the years 2010, 2015 and 2020.

The northern California section of the report begins with the demand forecast, including discussion of economic conditions, customer energy efficiency, forecast methodology, and other facts affecting demand in various markets. Following the gas demand forecast are discussions of gas supply and pipeline capacity. Abnormal peak day demands and supply resources, as well as gas balances, are discussed at the end of this section.

GAS DEMAND REQUIREMENTS

OVERVIEW

PG&E's 2000 California Gas Report (00 CGR) average year demand forecast projects total on-system demand growing at an annual average rate of 1.4 percent between 2000 and 2020. This overall growth rate is a combination of 1.6 percent annual growth in the core market and 1.3 percent annual growth in the noncore market. By comparison, the 1998 California Gas Report (98 CGR) estimated annual average growth rates of 0.4 percent per year for the core market and 2.0 percent per year for the noncore market. ⁽¹⁾

Increases in the estimated rate of growth in the core market are due to incorporation of more recent historic usage, economic, and demographic data; more recent forecasts of economic and demographic drivers; and re-specification of the econometric models used to forecast core demand. Declines in the projected rate of growth in the noncore market are largely due to changes in the electric generation gas consumption portion of that market.

In the 00 CGR, the electric generation market is estimated to be virtually flat with an annualized growth rate of 0.4 percent. By contrast, the 98 CGR projected electric generation consumption to increase at an annual rate of 2.4 percent. The almost flat generation demand is due to more efficient gas-fired electric generation replacing older generating plants. There is little change in the forecast growth rates in the industrial sector portion of the noncore market. In the 00 CGR, the industrial sector is estimated to grow at an annual rate of 1.3 percent; in the 98 CGR, this sector was projected to grow at an annual rate of 1.2 percent. ⁽²⁾

FORECAST METHOD

PG&E's gas demand forecasts for the residential and commercial sectors are developed from econometric models. Gas demand for industrial customers is indexed to the growth in industrial production and manufacturing employment. Forecasts for other sectors (electric generation, EOR, NGV, wholesale) are developed from current and past market information. While variation in short-term gas use depends mainly on prevailing weather conditions, longer-term trends in gas demand are driven primarily by underlying economic, demographic, and

¹ The period used for calculating the 98 CGR growth rates is 1998-2015. 98 CGR did not include the 2016-2020 period in the forecast horizon.

² As note 1 above, the 98 CGR growth rates are calculated over the period 1998-2015.

technological changes such as growth in population, income, employment, and industrial output; and changes in the efficiency profiles of residential and commercial buildings and the appliances within them. Impacts from natural gas customer energy efficiency (CEE) programs are included in the gas demand forecast.

MARKET SENSITIVITY

The average-year gas demand forecast presented here is a reasonable projection for an uncertain future. However, point forecasts cannot capture the uncertainty in the major determinants of gas demand (e.g., weather, economic activity, appliance saturation, and efficiencies). In order to give some flavor of the possible variation in gas demand, PG&E has developed forecasts of gas demand under assumed hot-year and cold-year conditions. The assumptions for these scenarios are described below.

Temperature

Because space heating accounts for a high percentage of use, gas requirements for PG&E's residential and commercial customers are sensitive to prevailing temperature conditions. PG&E's average-year forecast assumes that temperatures in the forecast period will be equivalent to the average of observed temperatures during the past ten years.

Of course, actual temperatures in the forecast period will be higher or lower than those assumed in the average-year scenario and gas use will vary accordingly. PG&E's hot-year forecast assumes that temperatures in the forecast horizon will be equivalent to temperatures observed during the warmest year during the historic period 1960 through 1999 (1289 annual heating degree days in 1986). The cold-year forecast assumes that temperatures in the forecast horizon will be equivalent to those observed in the coldest year during that same historic period (2190 annual heating degree days in 1971).

Gas requirements for thermal electric generation within PG&E's service territory are also sensitive to temperature assumptions. The electric generation average-year forecast assumes normal temperature conditions for the period throughout the forecast horizon. In the cold-year and warm-year scenarios, monthly factors based on methodology suggested by TURN and adopted by the CPUC in Decision 95-12-053 are applied to the average temperature year forecast. The cold-year scenario assumes a cold winter and cool summer resulting in lower demand than that in the average-year forecast. Conversely, the warm-year scenario assumes a mild winter and hot summer resulting in higher demand than that in the average-year forecast.

Hydro Conditions

Normal hydro conditions are assumed for the average year case. For the cold-year and warm-year scenarios, the hydro conditions were not changed from the average year. The only change was made in the temperature variation as described above.

MARKET SECTORS

Residential

Residential customer growth in the PG&E service area is forecast to be about one percent per year from 2000 to 2020. At the same time, in keeping with recent trends, gas use per customer is expected to continue to increase, due to both income and wealth effects. As a result, PG&E forecasts residential demand to grow about 1.3 percent per year from 2000 to 2020.

Commercial

The number of commercial customers in the PG&E service area is forecast to grow at an average rate of about 0.3 percent per year from 2000 to 2020. However, growth in the number of commercial customers is largely offset by declining gas use per square foot as new and more energy-efficient gas equipment and building-shell technologies gain market share. The combination of these effects produces a relatively flat commercial gas demand growth rate of approximately 0.1 percent per year from 2000 through 2020.

Natural Gas Vehicles

Growing concern over air quality in California is focusing public attention on vehicles that emit less harmful exhaust. PG&E has a program to educate customers of the merits of including natural gas vehicles (NGVs) in their fleets. Both the National Energy Policy Act and the California Air Resources Board's low emission vehicle regulations should continue to increase this market. NGVs are expected to account for approximately 6 MMcf/day of demand by year 2002 increasing to 333 MMcf/day by the year 2020.

Industrial

Gas requirements for PG&E's industrial sector are affected by the level and type of industrial activity in the service area and changes in industrial processes. Gas use for industrial processes is expected to grow 1.3 percent per year from 2000 to 2020. This growth is driven by an expected increase in the production of food products; petroleum and chemical products; paper and pulp products; and stone, clay, and glass products to serve growing markets both here and abroad. These industries represent approximately 80 percent of PG&E's industrial gas market segment

Electric Generation

PG&E's electric generation gas requirements forecast is consistent with the company's latest regulatory forecasts as filed in the 2000 Biennial Cost Allocation Proceeding. Beginning in 1998 and ending in 1999, PG&E divested five of its seven electric generating power plants as part of the Electric Industry Restructuring in California. The ownership status of the remaining two gas-fired power plants is to be determined at a future date. Electric generation gas requirements are expected to be virtually flat during the forecast period due to efficiencies in the operation of gas fired generators. The effect of Electric Industry Restructuring on the electric generation market's gas requirement in the forecast horizon remains highly uncertain.

The Sacramento Municipal Utility District (SMUD) is the fifth largest municipal electric utility in the United States and provides electric service to over 500,000 customers within the greater Sacramento area. SMUD currently has 475 MW of gas fired electric generation capacity. SMUD owns approximately 3.6 percent of the PG&E's Backbone Line 300 and 5 percent of Line 401. In addition to its joint ownership in the California pipeline system, SMUD also has 10,000 Dth/d long-term capacity on Transwestern and 12,000 Dth/d on PG&E GT-NW and on TCPL's BC and Alberta systems (ANG and NOVA). Gas supplies are procured from Canada, the Southwest, and California production. The load is not particularly sensitive to weather.

CUSTOMER ENERGY EFFICIENCY

PG&E has been actively implementing Customer Energy Efficiency (CEE) and other demand-side management programs. These programs help PG&E minimize the use of existing fossil-fuel generation and reduce the need for additional transmission and distribution facilities, ultimately resulting in reduced operating costs.

The forecast assumes that these programs will be funded at approximately the same level they are today. Impacts from currently funded and anticipated natural gas programs are included in the gas demand forecast.

GAS SUPPLY SOURCES

California-Source Gas

Northern California-source gas supplies come primarily from gas fields in the Sacramento Valley. In 1999, PG&E's customers transported on average 151 MMcf/day of California source-gas. California-source gas in 1999 averaged about 3 MMcf/day.

Implementation of the new market structure under Gas Accord has changed the way California-source gas is marketed in PG&E's service area. California gas producers now have the option to market their supplies to any customer in northern, central, and southern California. In addition, Wild Goose Storage Inc. provides storage services as an alternative to PG&E.

U. S. Southwest Gas

PG&E's customers have access to three major U.S. Southwest gas producing basins--Permian, San Juan, and Anadarko--via the El Paso and Transwestern pipeline systems.

PG&E's customers can purchase U.S. Southwest gas supplies in the basin and transport it to California via interstate pipelines. Customers can also purchase these supplies at the California-Arizona border (Topock) or at the newly-established California Citygate from marketers who hold inter- or intra-state pipeline capacity.

Canadian Gas

PG&E's customers can purchase Canadian gas from various suppliers in Canada and transport it to California primarily through PG&E GT-NW. Customers can also purchase supplies at the California-Oregon border (Malin) and deliver the gas via PG&E's Redwood Path. Customers also may purchase supplies at the Citygate.

Rocky Mountain Gas

PG&E's customers have access to gas supplies from the Rocky Mountain area via the Kern River Pipeline and via the PG&E Gas Transmission - Northwest/Northwest Pipeline interconnect at Stanfield, Oregon. The Rocky Mountain area is a large region with many oil and gas producing basins. The greatest potential supplies available to California from this area are in the Thrust Belt, the Vintah Basin, and the Arlen River Basin in southwestern and central Wyoming, adjacent to northern Colorado, and in northeastern Utah. Rocky Mountain supplies enhance service reliability and increase diversity of gas supplies in northern and central California.

Supplemental Gas Supplies

Supplemental gas supplies are included in PG&E's forecast to meet customer's gas requirements and avoid curtailments.

PG&E anticipates that sufficient supplemental supplies will be available from a variety of sources at market-competitive prices to meet existing and projected market demands in its service area. The supplemental supplies shown in this report could be delivered through a variety of sources, including new interstate pipeline facilities and expansion of PG&E's existing transmission and storage facilities.

GAS SUPPLY/PIPELINE CAPACITY

OVERVIEW

Competition for gas supply, market share, and transportation access has increased significantly over the past few years. Implementation of PG&E's Gas Accord in March 1998 and the addition of interstate pipeline capacity have provided all customers with direct access to gas supplies, intra- and inter-state transportation, and related services.

Almost all of PG&E's noncore customers buy all or most of their gas supply needs directly from the market. They use PG&E's transportation and storage services to meet their gas supply needs.

INTERSTATE GAS PIPELINE CAPACITY

In recent years, the natural gas pipeline industry has taken significant steps to expand the nation's already extensive pipeline network. These efforts have allowed California utilities and end-users improved access to supply basins and enhanced gas-on-gas and pipeline-to-pipeline competition. Interstate pipelines serving northern California include the El Paso, Transwestern, PG&E Gas Transmission - Northwest, and Kern River pipelines. These pipelines provide northern California with access to gas producing regions in the U. S. Southwest and Rocky Mountain areas, and in Western Canada.

U.S. Southwest

Total PG&E intrastate capacity connected to U.S. Southwest pipeline systems (Transwestern, El Paso, and Kern River) is limited to 1,140 MMcf/day, which is the maximum capacity of PG&E's Line 300 (Baja Path). In developing the forecast of gas supply takes, PG&E has assumed continued annual supply availability of 1,140 MMcf/day from the U. S. Southwest for the entire forecast period.

Canada

PG&E's Lines 400/401 (Redwood Path) are connected to PG&E Gas Transmission - Northwest at Malin, Oregon. The Redwood Path has an average capacity of approximately 1,850 MMcf/day to serve both northern and southern California markets.

PG&E has assumed seasonal supply availability of 1,750 MMcf/day in the winter and 1,800 MMcf/day in the summer for the forecast period of 2000 - 2020.

The actual capacity or supplies taken could differ from those shown above. Operational conditions could limit the capacity during certain times of the year. In addition, market conditions could reduce supplies taken by PG&E's customers.

ABNORMAL PEAK DAY SUPPLY AND DEMAND

APD DEMAND FORECAST

The Abnormal Peak Day (APD) forecast is a forecast of the core demand forecast which CPUC regulations require PG&E to serve if weather conditions were to match those on the coldest day ever observed in the PG&E service area.

The forecast is developed by using statistical tools to estimate the relationship of daily core gas usage to daily weather conditions during several recent winters. This relationship is then used to forecast what the core load would be under the adverse weather conditions which occurred on December 11, 1932, the coldest day on record in PG&E's service area.

FORECAST OF APD SUPPLY AVAILABILITY

For APD planning purposes, supplies will flow under core's firm capacity, any as-available capacity, and capacity made available pursuant to supply diversion arrangements. These flowing supplies may be from Canada, U.S. Southwest, Rocky Mountain Region, SoCalGas, and California-source gas. Supplies could also be purchased from noncore customers once gas enters the PG&E system. PG&E Gas Procurement Department will be responsible for managing the flowing supplies to PG&E's core customers in the event of an APD occurrence. Core aggregators serving core transport customers on PG&E's system have the obligation to make and pay for all necessary arrangements to deliver gas to PG&E to match the use of their customers.

A significant part of the APD demand will be met by storage withdrawals from PG&E's underground storage facilities located at McDonald Island, Los Medanos, and Pleasant Creek and also storage withdrawals from the Wild Goose natural gas storage facility.

PACIFIC GAS AND ELECTRIC COMPANY

Forecast of Gas Demand and Supply on an Abnormal Peak Day (APD)
MMcf/Day

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
APD Core Demand⁽¹⁾	3,215	3,250	3,286	3,328	3,373
Firm Storage Withdrawal	1,006	1,006	1,006	1,006	1,006
Required Flowing Supplies⁽²⁾	2,209	2,244	2,280	2,322	2,367
Total APD Resources (to meet demands)	3,215	3,250	3,286	3,328	3,373

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 29 degrees F.
- (2) Includes supplies flowing under firm and as-available capacity, and capacity made available pursuant to supply diversion arrangements.

GAS BALANCES

OVERVIEW

Although available gas supplies exceed requirements on an average basis, on particularly cold winter days heightened demand could require the use of gas from underground storage. The balances listed in this report represent one possible combination of demand and supply necessary to deliver incremental supplies. They are not intended to reflect actual choices by customers, or an outcome sought or preferred by PG&E.

SEQUENCING

Sequencing describes the order in which gas supplies are purchased in accordance with PG&E's gas purchase policy and operational considerations. The gas balances presented in this report are based on sequencing assumptions consistent with these guidelines.

BALANCE RESULTS

The gas balances show full service to all customers under an average year for the forecast period. Beginning in 2010, supplemental supplies of 100 MMc/day and increasing to 150 MMc/day by 2015 and 400 MMc/day by 2020 are assumed to be available to the PG&E system for all three temperature-year cases. No curtailments occur in any of the temperature cases.

2000
California
Gas
Report

***PACIFIC GAS AND ELECTRIC COMPANY
TABULAR DATA***

Pacific Gas and Electric Company

ANNUAL GAS SUPPLY AND REQUIREMENTS RECORDED YEARS 1995-1999 MMCF/DAY

LINE		1995	1996	1997	1998	1999	LINE
GAS SUPPLY TAKEN							
	CALIFORNIA SOURCE GAS						
1	Regular Purchases	85	77	29	16	14	1
2	Exchange	11	11	12	14	0	2
3	Transport	80	81	107	117	137	3
4	Total California Source Gas	176	169	147	147	151	4
	OUT-OF-STATE GAS						
5	Rocky Mountain Gas - Core and UEG	0	0	0	59	78	5
6	U.S. Southwest Purchases - Core	155	146	144	205	210	6
7	Canadian Purchases - Core	535	531	565	595	595	7
8	UEG Gas Transport from U.S. Southwest	167	157	215	86	31	8
9	UEG Gas Transport from Canada	182	162	203	230	46	9
10	Noncore Customer Gas Transport	671	724	768	874	1153 ⁽¹⁾	10
11	Total Out-of-State Gas	1,710	1,721	1,894	2,048	2113	11
12	STORAGE WITHDRAWAL	54	78	113	107	60	12
13	Total Gas Supply Taken	1,940	1,968	2,155	2,302	2324	13
GAS SENDOUT							
SALES - CORE							
15	Residential	525	521	524	613	640	15
16	Commercial	176	171	167	181	192	16
17	NGV	0	0	1	1	1	17
18	Total Sales-Core	702	692	691	795	832	18
SALES - NONCORE							
19	Industrial	36	30	26	11	14	19
20	Electric Generation (2)	3	3	2	2	1	20
21	EOR	0	0	0	0	0	21
22	NGV	0	0	0	0	0	22
23	Wholesale/Resale	0	0	0	0	0	23
24	Total Sales-Noncore	38	33	28	13	15	24
25	Subtotal Sales	740	725	719	807	847	25
TRANSPORT ONLY CORE							
26	All Classes	46	38	45	48	44	26
TRANSPORT ONLY NONCORE							
27	Industrial	444	530	562	624	825	27
28	Electric Generation (2)	503	460	564	565	336	28
29	EOR	18	6	4	1	0	29
30	NGV	1	1	1	1	1	30
31	Wholesale/Resale	10	10	10	12	12	31
32	Subtotal Transport Only	1,021	1,044	1,186	1,250	1218	32
33	CALIFORNIA EXCHANGE GAS	11	11	12	14	0	33
34	STORAGE GAS	82	61	74	146	63	34
35	SHRINKAGE Company Use / Unaccounted for	86	128	165	85	196	35
36	Total Gas Send Out (3)	1,940	1,968	2,155	2,302	2324	36
CURTAILMENT / ALTERNATIVE FUEL BURNS							
37	Residential, Commercial, Industrial and EOR	0	0	0	1	0	37
38	Utility Electric Generation	0	0	0	0	0	38
39	TOTAL CURTAILMENT	0	0	0	1	0	39

NOTES:

- (1) Also includes Wholesale/Resale and non-utility generation.
- (2) Electric generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.
- (3) Total gas send-out excludes off-system transportation.
- (4) UEG curtailments include voluntary oil burns due to economic, operational, and inventory reduction reasons as well as involuntary curtailments due to supply shortages and capacity constrains.

Pacific Gas and Electric Company

**ANNUAL GAS SUPPLY
FORECAST YEARS 2000-2004
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE	2000	2001	2002	2003	2004	LINE
GAS SUPPLY AVAILABLE						
CALIFORNIA SOURCE GAS	140	140	140	140	140	1
OUT-OF-STATE GAS						
2 U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	1,140	2
3 Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	1,575	3
4 Supplemental ⁽³⁾	0	0	0	0	0	4
5 Total Out-of-State Gas	2,715	2,715	2,715	2,715	2,715	5
6 TOTAL Supplies Available ⁽⁴⁾	2,855	2,855	2,855	2,855	2,855	6
7 Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	7
8 TOTAL INCLUDING BYPASS	3,221	3,221	3,221	3,221	3,221	8
GAS SUPPLY TAKEN						
CALIFORNIA SOURCE GAS						
9 PG&E Purchases ⁽⁶⁾	0	0	0	0	0	9
10 Customer Transport	140	140	140	140	140	10
11 Total California	140	140	140	140	140	11
OUT-OF-STATE GAS (via Existing Facilities)						
U.S. Southwest Gas						
12 PG&E Purchases ⁽⁶⁾	217	224	228	231	233	12
13 Customer Transport	148	178	207	220	234	13
14 Total Southwest U.S.	365	402	435	451	467	14
Canadian Gas						
15 PG&E Purchases ⁽⁶⁾	600	600	600	600	600	15
16 Customer Transport	964	968	971	970	971	16
17 Total Canadian	1,564	1,568	1,571	1,570	1,571	17
Supplemental						
18 PG&E Purchases ⁽⁶⁾	0	0	0	0	0	18
19 Customer Transport	0	0	0	0	0	19
20 Total Supplemental	0	0	0	0	0	20
21 Total Out-of State Gas	1,929	1,970	2,006	2,021	2,038	21
22 SUBTOTAL	2,069	2,110	2,146	2,161	2,178	22
23 Storage Injection (Includes Wild Goose)	138	141	143	140	140	23
24 Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	24
25 TOTAL THROUGHPUT	2,573	2,617	2,655	2,667	2,684	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2000-2004 MMCF/DAY AVERAGE TEMPERATURE YEAR

LINE		2000	2001	2002	2003	2004	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾							
1	CORE Residential	603	611	618	625	634	1
2	Commercial	219	222	223	224	226	2
3	NGV	1	2	3	4	5	3
4	SUBTOTAL Core	824	835	844	853	865	4
5	NONCORE Industrial	510	524	534	545	555	5
6	SMUD Electric Generation	59	64	69	74	74	6
7	PG&E Electric Generation ⁽²⁾	607	617	626	614	608	7
8	EOR	0	0	0	0	0	8
9	NGV	1	2	3	4	6	9
10	Resale	11	12	12	12	12	10
11	Southwest Exchange Gas	9	9	9	9	9	11
12	SUBTOTAL-Noncore	1,197	1,228	1,253	1,258	1,264	12
13	SHRINKAGE Company Use and Unaccounted For	47	48	48	49	49	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,068	2,111	2,145	2,160	2,178	14
15	Storage Injection (Includes Wild Goose)	138	141	143	140	140	15
16	SUBTOTAL-Including Injection	2,206	2,252	2,288	2,300	2,318	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	366	17
18	TOTAL REQUIREMENTS	2,572	2,618	2,654	2,666	2,684	18
19	SYSTEM CURTAILMENT	0	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾							
20	CORE All Classes	46	53	59	71	85	20
21	Non Core	510	524	534	545	555	21
22	SMUD Electric Generation	59	64	69	74	74	22
23	PG&E Electric Generation	607	617	626	614	608	23
24	EOR	0	0	0	0	0	24
25	NGV	1	2	3	4	6	25
26	Resale	11	12	12	12	12	26
27	Southwest Exchange Gas	9	9	9	9	9	27
28	TOTAL TRANSPORT ONLY	1,243	1,281	1,312	1,329	1,349	28

NOTES:

- (1) Requirements forecast by end use includes on-system sales and transportation volumes only.
- (2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.
- (3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.
- (4) Transport is included in requirements forecast above.

Pacific Gas and Electric Company

**ANNUAL GAS SUPPLY
FORECAST YEARS 2005-2020
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE		2005	2010	2015	2020	LINE
GAS SUPPLY AVAILABLE						
1	CALIFORNIA SOURCE GAS	140	140	140	140	1
OUT-OF-STATE GAS						
2	U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	2
3	Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	3
4	Supplemental ⁽³⁾	0	0	0	29	4
5	Total Out-of-State Gas	2,715	2,715	2,715	2,744	5
6	TOTAL Supplies Available ⁽⁴⁾	2,855	2,855	2,855	2,884	6
7	Pipeline Bypass ⁽⁵⁾	366	366	366	366	7
8	TOTAL INCLUDING BYPASS	3,221	3,221	3,221	3,250	8
GAS SUPPLY TAKEN						
CALIFORNIA SOURCE GAS						
9	PG&E Purchases ⁽⁶⁾	0	0	0	0	9
10	Customer Transport	140	140	140	140	10
11	Total California	140	140	140	140	11
OUT-OF-STATE GAS (via Existing Facilities)						
U.S. Southwest Gas						
12	PG&E Purchases ⁽⁶⁾	235	242	246	256	12
13	Customer Transport	250	374	581	743	13
14	Total Southwest U.S.	485	616	827	999	14
Canadian Gas						
15	PG&E Purchases ⁽⁶⁾	600	600	600	600	15
16	Customer Transport	971	974	975	975	16
17	Total Canadian	1,571	1,574	1,575	1,575	17
Supplemental						
18	PG&E Purchases ⁽⁶⁾	0	0	0	0	18
19	Customer Transport	0	0	0	29	19
20	Total Supplemental	0	0	0	29	20
21	Total Out-of State Gas	2,056	2,190	2,402	2,603	21
22	SUBTOTAL (all pipeline)	2,196	2,330	2,542	2,743	22
23	Storage Injection (Includes Wild Goose)	139	140	136	144	23
24	Pipeline Bypass ⁽⁵⁾	366	366	366	366	24
25	TOTAL THROUGHPUT	2,701	2,836	3,044	3,253	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2005-2020 MMCF/DAY AVERAGE TEMPERATURE YEAR

LINE		2005	2010	2015	2020	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾						
1	CORE Residential	642	684	726	781	1
2	Commercial	227	228	222	221	2
3	NGV	7	39	96	137	3
4	SUBTOTAL	877	952	1,044	1,140	4
5	NONCORE Industrial	563	592	621	653	5
6	SMUD Electric Generation	78	78	78	78	6
7	PG&E Electric Generation ⁽²⁾	598	581	588	594	7
8	EOR	0	0	0	0	8
9	NGV	9	53	132	192	9
10	Resale	12	12	13	13	10
11	Southwest Exchange Gas	9	9	9	9	11
12	SUBTOTAL Noncore	1,269	1,325	1,441	1,539	12
13	SHRINKAGE Company Use and Unaccounted For	50	53	58	64	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,196	2,330	2,543	2,743	14
15	Storage Injection (Includes Wild Goose)	139	140	136	144	15
16	SUBTOTAL-Including Injection	2,335	2,470	2,679	2,887	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	17
18	TOTAL REQUIREMENTS	2,701	2,836	3,045	3,253	18
19	SYSTEM CURTAILMENT	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾						
20	CORE All Classes	98	156	204	266	20
21	NON-CORE Industrial	563	592	621	653	21
22	SMUD Electric Generation	78	78	78	78	22
23	PG&E Electric Generation	598	581	588	594	23
24	EOR	0	0	0	0	24
25	NGV	9	53	132	192	25
26	Resale	12	12	13	13	26
27	Southwest Exchange Gas	9	9	9	9	27
28	TOTAL TRANSPORT ONLY	1,367	1,481	1,645	1,805	28

NOTES:

- (1) Requirements forecast by end use includes on-system sales and transportation volumes only.
- (2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.
- (3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.
- (4) Transport is included in requirements forecast above.

Pacific Gas and Electric Company

ANNUAL GAS SUPPLY FORECAST YEARS 2000-2004 MMCF/DAY COLD TEMPERATURE YEAR

LINE		2000	2001	2002	2003	2004	LINE
GAS SUPPLY AVAILABLE							
1	CALIFORNIA SOURCE GAS	140	140	140	140	140	1
OUT-OF-STATE GAS							
-2	U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	1,140	2
3	Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	1,575	3
4	Supplemental ⁽³⁾	0	0	0	0	0	4
5	Total Out-of-State Gas	2,715	2,715	2,715	2,715	2,715	5
6	TOTAL Supplies Available ⁽⁴⁾	2,855	2,855	2,855	2,855	2,855	6
7	Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	7
8	TOTAL INCLUDING BYPASS	3,221	3,221	3,221	3,221	3,221	8
GAS SUPPLY TAKEN							
CALIFORNIA SOURCE GAS							
9	PG&E Purchases ⁽⁶⁾	0	0	0	0	0	9
10	Customer Transport	140	140	140	140	140	10
11	Total California	140	140	140	140	140	11
OUT-OF-STATE GAS (via Existing Facilities)							
U.S. Southwest Gas							
12	PG&E Purchases ⁽⁶⁾	287	295	300	302	304	12
13	Customer Transport	149	180	210	225	240	13
14	Total Southwest U.S.	436	475	510	527	544	14
Canadian Gas							
15	PG&E Purchases ⁽⁶⁾	600	600	600	600	600	15
16	Customer Transport	967	970	971	971	971	16
17	Total Canadian	1,567	1,570	1,571	1,571	1,571	17
Supplemental							
18	PG&E Purchases ⁽⁶⁾	0	0	0	0	0	18
19	Customer Transport	0	0	0	0	0	19
20	Total Supplemental	0	0	0	0	0	20
21	Total Out-of State Gas	2,003	2,045	2,081	2,098	2,115	21
22	SUBTOTAL (all pipeline)	2,143	2,185	2,221	2,238	2,255	22
23	Storage Injection (Includes Wild Goose)	141	140	140	140	141	23
24	Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	24
25	TOTAL THROUGHPUT	2,650	2,691	2,727	2,744	2,762	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2000-2004 MMCF/DAY COLD TEMPERATURE YEAR

LINE		2000	2001	2002	2003	2004	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾							
CORE							
1	Residential	659	667	675	683	692	1
2	Commercial	234	237	238	240	241	2
3	NGV	1	2	3	4	5	3
4	Total Core	895	907	916	927	937	4
NONCORE							
5	Industrial	511	525	535	546	556	5
6	SMUD Electric Generation	59	64	69	74	74	6
7	PG&E Electric Generation ⁽²⁾	606	616	626	613	608	7
8	EOR	0	0	0	0	0	8
9	NGV	1	2	3	4	6	9
10	Resale	12	12	12	13	13	10
11	Southwest Exchange Gas	10	10	10	10	10	11
12	SUBTOTAL-Noncore	1,199	1,229	1,255	1,260	1,267	12
13	SHRINKAGE Company Use and Unaccounted For	48	49	50	51	51	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,142	2,185	2,221	2,238	2,255	14
15	Storage Injection (Includes Wild Goose)	141	140	140	140	141	15
16	SUBTOTAL-Including Injection	2,283	2,325	2,361	2,378	2,396	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	366	17
18	TOTAL REQUIREMENTS	2,649	2,691	2,727	2,744	2,762	18
19	SYSTEM CURTAILMENT	0	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾							
20	CORE All Classes	50	56	63	77	91	20
21	NONCORE Industrial	511	525	535	546	556	21
22	SMUD Electric Generation	59	64	69	74	74	22
23	PG&E Electric Generation	606	616	626	613	608	23
24	EOR	0	0	0	0	0	24
25	NGV	1	2	3	4	6	25
26	Resale	12	12	12	13	13	26
27	Southwest Exchange Gas	10	10	10	10	10	27
28	TOTAL TRANSPORT ONLY	1,249	1,285	1,318	1,337	1,358	28

NOTES:

(1) Requirements forecast by end use includes on-system sales and transportation volumes only.

(2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.

(3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.

(4) Transport is included in requirements forecast above.

Pacific Gas and Electric Company

ANNUAL GAS SUPPLY FORECAST YEARS 2005-2020 MMCF/DAY COLD TEMPERATURE YEAR

LINE		2005	2010	2015	2020	LINE
GAS SUPPLY AVAILABLE						
1	CALIFORNIA SOURCE GAS	140	140	140	140	1
OUT-OF STATE GAS						
2	U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	2
3	Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	3
4	Supplemental ⁽³⁾	0	0	6	75	4
5	Total Out-of State Gas	2,715	2,715	2,721	2,790	5
6	TOTAL Supplies Available ⁽⁴⁾	2,855	2,855	2,861	2,930	6
7	Pipeline Bypass ⁽⁵⁾	366	366	366	366	7
8	TOTAL INCLUDING BYPASS	3,221	3,221	3,227	3,296	8
GAS SUPPLY TAKEN						
CALIFORNIA SOURCE GAS						
9	PG&E Purchases ⁽⁶⁾	0	0	0	0	9
10	Customer Transport	140	140	140	140	10
11	Total California	140	140	140	140	11
OUT OF STATE GAS (via Existing Facilities)						
U.S. Southwest Gas						
12	PG&E Purchases ⁽⁶⁾	306	314	319	330	12
13	Customer Transport	257	384	589	715	13
14	Total Southwest U.S.	563	698	908	1,045	14
Canadian Gas						
15	PG&E Purchases ⁽⁶⁾	600	600	600	586	15
16	Customer Transport	971	974	975	975	16
17	Total Canadian	1,571	1,574	1,575	1,575	17
Supplemental						
18	PG&E Purchases ⁽⁶⁾	0	0	0	0	18
19	Customer Transport	0	0	6	75	19
20	Total Supplemental	0	0	6	75	20
21	Total Out-of State Gas	2,134	2,272	2,489	2,695	21
22	SUBTOTAL	2,274	2,412	2,629	2,835	22
23	Storage Withdrawal (Includes Wild Goose)	141	138	141	146	23
24	Pipeline Bypass ⁽⁵⁾	366	366	366	366	24
25	TOTAL THROUGHPUT	2,781	2,916	3,136	3,347	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2005-2020 MMCF/DAY COLD TEMPERATURE YEAR

LINE		2005	2010	2015	2020	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾						
1	CORE Residential	701	747	793	853	1
2	Commercial	243	244	237	237	2
3	NGV	7	39	96	137	3
4	SubTotal Core	952	1,031	1,126	1,227	4
5	NONCORE Industrial	564	593	622	655	5
6	SMUD Electric Generation	78	78	78	78	6
7	PG&E Electric Generation ⁽²⁾	596	580	588	593	7
8	EOR	0	0	0	0	8
9	NGV	9	53	132	192	9
10	Resale	13	13	13	14	10
11	Southwest Exchange Gas	10	10	10	10	11
12	SUBTOTAL-Noncore	1,270	1,327	1,443	1,542	12
13	SHRINKAGE Company Use and Unaccounted For	51	55	60	667	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,273	2,413	2,629	2,835	14
15	Storage Injection	141	138	141	146	15
16	SUBTOTAL-Including Injection	2,414	2,551	2,770	2,981	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	17
18	TOTAL REQUIREMENTS	3,780	2,917	3,136	3,347	18
19	SYSTEM CURTAILMENT	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾						
20	CORE All Classes	106	170	220	287	20
21	NON CORE Industrial	564	593	622	655	21
22	SMUD Electric Generation	78	78	78	78	22
23	PG&E Electric Generation	596	580	588	593	23
24	EOR	0	0	0	0	24
25	NGV	9	53	132	192	25
26	Resale	13	13	13	14	26
27	Southwest Exchange Gas	10	10	10	10	27
28	TOTAL TRANSPORT ONLY	1,376	1,497	1,663	1,829	28

NOTES:

(1) Requirements forecast by end use includes on-system sales and transportation volumes only.

(2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.

(3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.

(4) Transport is included in requirements forecast above.

Pacific Gas and Electric Company

ANNUAL GAS SUPPLY FORECAST YEARS 2000-2004 MMCF/DAY HOT TEMPERATURE YEAR

LINE		2000	2001	2002	2003	2004	LINE
GAS SUPPLY AVAILABLE							
1	CALIFORNIA SOURCE GAS	140	140	140	140	140	1
OUT-OF STATE GAS							
-2	U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	1,140	2
3	Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	1,575	3
4	Supplemental ⁽³⁾	0	0	0	0	0	4
5	Total Out-of-State Gas	2,715	2,715	2,715	2,715	2,715	5
6	TOTAL Supplies Available ⁽⁴⁾	2,885	2,885	2,855	2,855	2,855	6
7	Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	7
8	TOTAL INCLUDING BYPASS	3,221	3,221	3,221	3,221	3,221	8
GAS SUPPLY TAKEN							
CALIFORNIA SOURCE GAS							
9	PG&E Purchases ⁽⁶⁾	0	0	0	0	0	9
10	Customer Transport	140	140	140	140	140	10
11	Total California	140	140	140	140	140	11
OUT OF STATE GAS (via Existing Facilities)							
U.S. Southwest Gas							
12	PG&E Purchases ⁽⁶⁾	182	190	194	195	197	12
13	Customer Transport	151	180	208	224	238	13
14	Total Southwest U.S.	333	370	402	419	435	14
Canadian Gas							
15	PG&E Purchases ⁽⁶⁾	600	600	600	600	600	15
16	Customer Transport	963	967	969	968	968	16
17	Total Canadian	1,563	1,567	1,569	1,568	1,568	17
Supplemental							
18	PG&E Purchases ⁽⁶⁾	0	0	0	0	0	18
19	Customer Transport	0	0	0	0	0	19
20	Total Supplemental	0	0	0	0	0	20
21	Total Out-of State Gas	1,896	1,937	1,971	1,987	2,003	21
22	Subtotal (all pipeline)	2,036	2,077	2,111	2,127	2,143	22
23	Storage Withdrawal	137	142	142	140	142	23
24	Pipeline Bypass ⁽⁵⁾	366	366	366	366	366	24
25	TOTAL THROUGHPUT	2,539	2,585	2,619	2,633	2,651	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2000-2004 MMCF/DAY HOT TEMPERATURE YEAR

LINE		2000	2001	2002	2003	2004	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾							
1	CORE Residential	575	582	589	596	604	1
2	Commercial	213	215	216	218	219	2
3	NGV	1	2	3	4	5	3
4	SUBTOTAL-Core	789	800	808	818	818	4
5	NONCORE Industrial	510	523	534	545	554	5
6	SMUD Electric Generation	59	64	69	74	74	6
7	PG&E Electric Generation ⁽²⁾	611	621	630	618	611	7
8	EOR	0	0	0	0	0	8
9	NGV	1	2	3	4	6	9
10	Resale	11	11	11	11	11	10
11	Southwest Exchange Gas	9	9	9	9	9	11
12	SUBTOTAL-Noncore	1,201	1,230	1,256	1,261	1,265	12
13	SHRINKAGE Company Use and Unaccounted For	46	47	48	48	48	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,036	2,077	2,112	2,127	2,131	14
15	Storage Injection (Includes Wild Goose)	137	142	142	140	142	15
16	SUBTOTAL-Including Injection	2,173	2,219	2,254	2,267	2,273	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	366	17
18	TOTAL REQUIREMENTS	2,539	2,585	2,620	2,633	2,639	18
19	SYSTEM CURTAILMENT	0	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾							
20	CORE All Classes	45	50	58	69	82	20
21	NONCORE Industrial	510	523	534	545	554	21
22	SMUD Electric Generation	59	64	69	74	74	22
23	PG&E Electric Generation	611	621	630	618	611	23
24	EOR	0	0	0	0	0	24
25	NGV	1	2	3	4	6	25
26	Resale	11	11	11	11	11	26
27	Southwest Exchange Gas	9	9	9	9	9	27
28	TOTAL TRANSPORT ONLY	1,246	1,280	1,314	1,330	1,347	28

NOTES:

(1) Requirements forecast by end use includes on-system sales and transportation volumes only.

(2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.

(3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.

(4) Transport is included in requirements forecast above.

Pacific Gas and Electric Company

ANNUAL GAS SUPPLY FORECAST YEARS 2005-2020 MMCF/DAY HOT TEMPERATURE YEAR

LINE		2005	2010	2015	2020	LINE
GAS SUPPLY AVAILABLE						
1	CALIFORNIA SOURCE GAS	140	140	140	140	1
OUT-OF STATE GAS						
2	U.S. Southwest Gas ⁽¹⁾	1,140	1,140	1,140	1,140	2
3	Canadian Gas ⁽²⁾	1,575	1,575	1,575	1,575	3
4	Supplemental ⁽³⁾	0	0	0	4	4
5	Total Out-of-State Gas	2,715	2,715	2,715	2,719	5
6	TOTAL Supplies Available ⁽⁴⁾	2,855	2,855	2,855	2,859	6
7	Pipeline Bypass ⁽⁵⁾	366	366	366	366	7
8	TOTAL INCLUDING BYPASS	3,221	3,221	3,221	3,225	8
GAS SUPPLY TAKEN						
CALIFORNIA SOURCE GAS						
9	PG&E Purchases ⁽⁶⁾	0	0	0	0	9
10	Customer Transport	140	140	140	140	10
11	Total California	140	140	140	140	11
OUT OF STATE GAS (via Existing Facilities)						
U.S. Southwest Gas						
12	PG&E Purchases ⁽⁶⁾	200	206	212	223	12
13	Customer Transport	251	373	573	742	13
14	Total Southwest U.S.	451	579	785	965	14
Canadian Gas						
15	PG&E Purchases ⁽⁶⁾	600	600	600	600	15
16	Customer Transport	969	973	974	975	16
17	Total Canadian	1,569	1,573	1,574	1,575	17
Supplemental						
18	PG&E Purchases ⁽⁶⁾	0	0	0	0	18
19	Customer Transport	0	0	0	4	19
20	Total Supplemental	0	0	0	4	20
21	Total Out-of State Gas	2,020	2,152	2,359	2,544	21
22	SUBTOTAL	2,160	2,292	2,499	2,684	22
23	Storage Withdrawal	140	141	140	141	23
24	Pipeline Bypass ⁽⁵⁾	366	366	366	366	24
25	TOTAL THROUGHPUT	2,666	2,799	3,005	3,191	25

NOTES:

- (1) This is based on the intrastate capacity of 1,140 MMcf/day and includes transport of customer-owned gas and purchases by PG&E. The total capacity from the U. S. Southwest and the Rocky Mountain producing regions is higher than the intrastate capacity of 1,140 MMcf/day on PG&E's Baja Path.
- (2) 175 MMcf/day assumed to southern California.
- (3) May include interruptible supplies transported over existing facilities, displacement agreements, or modifications that expand existing facilities.
- (4) Supplies available through utility system.
- (5) Bypass is defined in the Glossary.
- (6) Core portfolio only.

Pacific Gas and Electric Company

ANNUAL GAS REQUIREMENTS FORECAST YEARS 2005-2020 MMCF/DAY HOT TEMPERATURE YEAR

LINE		2005	2010	2015	2020	LINE
REQUIREMENTS FORECAST BY END USE ⁽¹⁾						
1	CORE Residential	612	652	689	731	1
2	Commercial	221	222	215	214	2
3	NGV	7	39	96	137	3
4	SUBTOTAL-Core	840	913	1000	1,082	4
5	NONCORE Industrial	563	592	621	653	5
6	SMUD Electric Generation	78	78	78	78	6
7	PG&E Electric Generation ⁽²⁾	601	585	591	597	7
8	EOR	0	0	0	0	8
9	NGV	9	53	132	192	9
10	Resale	11	12	12	12	10
11	Southwest Exchange Gas	9	9	9	9	11
12	SUBTOTAL-Noncore	1,271	1,329	1,443	1,541	12
13	SHRINKAGE Company Use and Unaccounted For	49	52	56	61	13
14	TOTAL END USE SERVED BY UTILITY ⁽³⁾	2,160	2,294	2,499	2,684	14
15	Storage Injection (Includes Wild Goose)	140	141	140	141	15
16	SUBTOTAL-Including Injection	2,300	2,435	2,639	2,825	16
17	Pipeline Bypass ⁽⁴⁾	366	366	366	366	17
18	TOTAL REQUIREMENTS	2,666	2,801	3,005	3,191	18
19	SYSTEM CURTAILMENT	0	0	0	0	19
TRANSPORT ONLY ⁽⁴⁾						
20	CORE All Classes	95	150	192	238	20
21	NON CORE Industrial	563	592	621	653	21
22	SMUD Electric Generation	78	78	78	78	22
23	PG&E Electric Generation	601	585	591	597	23
24	EOR	0	0	0	0	24
25	NGV	9	53	132	192	25
26	Resale	11	12	12	12	26
27	Southwest Exchange Gas	9	9	9	9	27
28	TOTAL TRANSPORT ONLY	1,366	1,479	1,635	1,779	28

NOTES:

- (1) Requirements forecast by end use includes on-system sales and transportation volumes only.
- (2) Electric Generation includes Non-EOR cogeneration, PG&E Utility Electric Generation, and other non-utility generation.
- (3) Figures are net of pipeline bypass load losses to non-jurisdictional gas suppliers.
- (4) Transport is included in requirements forecast above.

2000
California
Gas
Report

SOUTHERN CALIFORNIA

INTRODUCTION

Southern California Gas Company (SoCalGas) is the principal distributor of natural gas in southern California, providing retail and wholesale customers with procurement, transportation, exchange and storage services. SoCalGas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery and electric generation in southern California. San Diego Gas & Electric Company (SDG&E), Southwest Gas Corporation, and the City of Long Beach Gas and Electric Department are SoCalGas' three wholesale utility customers. Gas service at wholesale is expected to begin to the City of Vernon during the forecast period.

This report covers a 20-year forecast period, from 2000 through 2020; only the consecutive years 2000 through 2006 and the point years 2010, 2015 and 2020, however, are shown in the tabular data in the next sections. The forecast is subject to uncertainty, but represents SoCalGas' best estimates for the future, based upon the most current information available.

The Southern California section of the 2000 California Gas Report begins with a discussion of the economic conditions and regulatory issues facing the utilities, followed by a discussion of the factors affecting gas demand in various market sectors. The outlook on gas supply availability, which continues to be favorable, is presented next. SoCalGas' weighted average cost of gas (WACOG) price forecast is discussed followed by a review of the peak day demand forecast. Summary tables and figures underlying the forecast are provided.

THE SOUTHERN CALIFORNIA ENVIRONMENT

ECONOMICS AND DEMOGRAPHICS

The gas demand projections are partly determined by the long-term economic outlook for the SoCalGas service territory. After suffering from a prolonged recession in the early-to-mid-1990's, southern California's economy is currently enjoying a multi-year recovery. Area employment has grown every year since 1994. In 1998, the area's non-farm jobs passed the 7-million mark, at last surpassing their 1990 pre-recession peak of 6.96 million. In 1999, total non-farm employment grew 2.7% - better than the 2.2% US growth rate. Non-farm employment in 2000 should pass 7.5 million. In 1999, local service-sector jobs saw 3.2% growth - healthy, but slightly slower than the 3.9% national rate. Local manufacturing employment increased a solid 1.7% in 1998 and dropped 1.6% in 1999 - better performance than overall US manufacturing. However, southern California's manufacturing jobs still remain nearly 19% below its 1988 peak of 1.26 million.

From 1999 to 2005, service-area non-farm jobs are expected to experience 1.7% average annual growth. Beyond 2005, the service area population's average age is expected to gradually increase, paralleling a national demographic trend of aging "baby boomers." As the population ages and as more people retire, employment is expected to grow at slower rates. From 2005 through 2020, forecasted local non-farm job growth will average only about 1.0% per year - with annual growth gradually slowing from 1.5% in 2005 to 0.8% by 2020. Area manufacturing job growth should average about 0.3% annual declines from 1999 through 2020. Manufacturing's share of non-farm employment will drop from 14% in 1999 to 10% by 2020. Service-sector jobs should average nearly 2.0% annual growth from 1999 through 2020 - increasing their share from 31% in 1999 to 37% by 2020.

With the expected growth in jobs and population, the number of SoCalGas' active meters is expected to increase an average of 1.24% per year from 1999 to 2020 - slightly slower than the recent 1.4% average annual growth from 1997 through 1999.

REGULATORY ENVIRONMENT

The past year witnessed California Public Utilities Commission (Commission) and Federal Energy Regulatory Commission (FERC) regulatory developments designed to make the gas industry more responsive to the changing needs of the natural gas marketplace.

State Regulatory Matters

In July 1999, the Commission issued decision D.99-07-015, assessing the current market and regulatory framework for California's natural gas industry. The goal of that decision was to identify the appropriate reforms necessary to facilitate healthy competition in California. After completing a series of hearings on existing market conditions in California, the Commission issued its decision that identified the "most promising options" for natural gas industry restructuring.

The gas regulatory model the Commission identified in the "most promising options" decision is one that preserves the utilities' traditional role of providing fully-integrated default service to core customers, while clearing obstacles to the competitive offering of gas commodity, transmission, storage, balancing and other related energy services for all customers in the service territories of regulated gas distribution companies in the state. The decision finds significant benefits for customers in retaining this overall utility structure, while at the same time, proposing changes toward mitigating any potential anti-competitive behavior as a result of the utilities' continuing ability to offer both traditional monopoly and competitive natural gas services.

The Commission also identified a need to institute more vigorous consumer protection rules for the benefit of small customers and to remove limits that currently constrain participation in core aggregation gas transportation programs. Local distribution companies would be required to continue to provide safe, reliable service for both sides of the customer meter, while creating options for consolidated billing for customers who choose to take service from competitive providers.

The Commission has also expressed a preference in the decision to build upon the model created on the PG&E system and to enact similar reforms on the SoCalGas system. These improvements include the creation of tradable access rights for transmission and storage assets and the development of a secondary market for those rights. The Commission would also like to enable customers to have more options for balancing services by directing the utilities to unbundle balancing-service rates and to allow customers to elect and to pay for greater or lesser imbalance services. The Commission ordered interested parties to engage in a negotiated solution to achieve these "most promising options." In April 2000, settlements were filed with the Commission proposing a comprehensive solution that addresses the Commission's "most promising options". These settlements are currently being reviewed by the Commission, and a decision on natural gas industry restructuring in southern California is due out by the end of 2000.

Federal Regulatory Matters

Most of the natural gas delivered by SoCalGas is produced outside of California. These supplies are delivered to SoCalGas' intrastate transmission system by interstate pipeline companies (primarily El Paso Natural Gas Company and Transwestern Pipeline Company) that are regulated by the FERC.

On February 9, 2000, the FERC issued Order 637, its Final Rule addressing "Regulation of Short-Term Natural Gas Transportation Services" (RM98-10). The Rule revises the Commission's regulations to "improve the efficiency of the market and to provide captive customers with the opportunity to reduce their cost of holding long-term pipeline capacity while continuing to protect against the exercise of market power." The Final Rule:

- Removes price ceilings for short-term secondary market capacity release to enhance the efficiency of the market until September 30, 2002, subject to Commission review and possible extension of the program at that time;
- Permits pipelines to propose peak and off-peak rates to better accommodate rate regulation of seasonal demands of the market and to better allocate revenue responsibility between short-term and long-term markets.
- Permits term differentiated rate structures to better allocate the underlying risk of contracting to both shippers and pipelines;
- Revises requirements relating to scheduling procedures, capacity segmentation, and pipeline penalties to improve the competitiveness and efficiency of the interstate pipeline grid;
- Narrows the right of first refusal to remove economic biases in the current rule and, at the same time, protects captive customers' ability to resubscribe to long-term capacity;
- Improves reporting requirements to provide more transparent pricing information and to provide more effective monitoring of market power and undue discrimination.

On April 12, 2000, the FERC issued a notice that extended the May 1, 2000, date for all pipelines to make pro forma compliance filings. The FERC divided the pipelines into three groups and staggered the schedule for pro forma compliance filings to provide shippers an opportunity to fully respond to each pipeline filing.

On May 19, 2000, the FERC issued Order 637-A to respond to issues raised in the requests for rehearing of Order 637. Order 637-A granted rehearing, in part, to make clarifying adjustments to the regulations regarding penalties, reporting requirements, and the right of first refusal.

GAS DEMAND (REQUIREMENTS)

OVERVIEW

SoCalGas expects continued growth in the residential market, along with associated service-oriented businesses in the commercial market. These markets, along with small industrial customers, comprise the core market. The remaining large customers make up the noncore market.

The following table compares the composition of SoCalGas' throughput for recorded year 1999 and forecast year 2020.

Composition of SoCalGas Throughput - Bcf (Average Temperature Year)			
	1999	2020	Change
Residential	278	311	12%
Core Non-residential	94	121	29%
Noncore C&I	164	164	0%
EOR-Steaming	9	7	-20%
Electric Generation	316	197	-38%
Wholesale	147	141	-4%
Other	19	19	0%
Total	1,025	960	-6%

NOTES:

"Core Non-residential" includes NGV throughput.

"Other" includes international (Mexicali) throughput and L&UAF+Company-Use gas.

Residential, core non-residential, and wholesale requirements are expected to increase as southern California's economy continues through a gradual economic expansion. Requirements for Enhanced Oil Recovery (EOR)-steaming operations, which have declined since the Kern/Mojave pipeline began offering direct service to California customers in 1992, are expected to continue to decline. The electric generation (EG) market is expected to decline dramatically as more electric power generation takes place outside SoCalGas' service territory. The decline in the wholesale demand is also explained by the electric power generation market impacts in SDG&E's service territory, more than offsetting and expected growth in other core and noncore wholesale markets.

MARKET SENSITIVITY

Temperature

Demand forecasts are prepared for three design temperature conditions - average, cold, and hot - to quantify changes in space heating demand due to weather. Temperature variations can cause significant changes in winter gas demand due to space heating in the residential and core commercial and industrial markets. The largest demand variations due to temperature occur in the month of January. Degree-day differences between the three conditions are developed from a six-zone temperature monitoring procedure within SoCalGas' service territory. The cold and hot design temperature conditions are based on a statistical recurrence factor of 1-in-35 years.

Pipeline Bypass

The Kern/Mojave Pipeline began operating in California in 1992, leading to bypass of the local gas distribution systems. In 1999, 144 Bcf of gas load bypassed SoCalGas' distribution system. Bypass to the Kern/Mojave mainline is expected to grow gradually to 177 Bcf per year in 2008. The expiration of several major long-term EOR customer transportation contracts by 2009 is expected to lead to an increase of bypass to 197 Bcf per year by 2011. Beyond 2011, bypass is anticipated to decline slowly as total gas usage in the EOR market declines.

Several new pipeline projects have been proposed to directly serve customers in southern California. The first project, Questar Southern Trails (Questar), has already received from the FERC a Preliminary Determination approving the project. This report assumes the Questar pipeline, with a capacity up to 44 Bcf/year, will begin service in the early part of the forecast period. The other proposed projects are seeking to obtain commitments from existing and new customers, but have not begun the regulatory approval process.

MARKET SECTORS

Residential

Residential demand adjusted for temperature increased slightly to 253.4 Bcf in 1999 from 253.1 Bcf in 1998. Unadjusted residential demand was 277.6 Bcf in 1999, 10% more than temperature adjusted demand primarily because of colder than normal weather conditions in southern California.

Active residential meters averaged 4.73 million in 1999, an increase of 67,000 (or 1.4%) from the 1998 average. In 2000, SoCalGas expects an increase of more than 61,000 active meters. From 2000 through 2020, active residential meters are expected to grow at an average annual rate of 1.3%, reaching 6.18 million by 2020.

Residential demand is projected to grow from 253.1 Bcf in 2000 to 311.0 Bcf in 2020, an increase of 2.9 Bcf per year. SoCalGas' DSM programs are projected to save about 1 Bcf per year in the residential sector.

Commercial

On a temperature-adjusted basis, core commercial market demand in 1999 totaled 68.6 Bcf, up 2.4 Bcf from 1998. This increase is largely the result of continuing positive economic conditions in southern California. On average, core commercial market demand is forecast to increase about 1.1% per year, over the next 20 years, reaching 88.6 Bcf in 2020.

Noncore commercial demand in 1999 totaled 25.9 Bcf, a slight increase of 0.5 Bcf over 1998 usage. Noncore commercial demand is expected to grow at 0.4% per year, reaching 27.2 Bcf in 2020. This growth is primarily due to an expected increase in commercial employment.

Industrial

In 1999, temperature-adjusted core industrial demand was 19.1 Bcf, an increase of 0.8 Bcf over 1998 deliveries. However, retail core industrial market deliveries are projected to decline by approximately 0.2% per year over the forecast period, dropping to 17.8 Bcf in 2020. This decline results from a combination of a slightly lower industrial employment forecast, higher marginal gas rates and increases in gas equipment energy-efficiencies.

Retail industrial noncore deliveries are forecast to increase from 133.5 Bcf in 1999 to 138.0 Bcf in 2000, a net increase of 4.5 Bcf. Deliveries are forecast to further increase to 142.4 Bcf in 2002. The reason for this increase is the addition of new load in late 1999. After 2002, industrial noncore demand is forecast to decline gradually to 136.4 Bcf in 2020. This small decline is due to a combination of a declining industrial base and some customers switching to wholesale status.

Electric Generation

This sector includes the following markets that were traditionally reported separately: commercial/industrial cogeneration less than 20 megawatts (MW), commercial/industrial cogeneration greater than 20 MW, EOR-related cogeneration, and non-cogeneration EG. It should be noted that the forecasts of EG-related load are subject a high degree of uncertainty associated with continued operation of existing electric powerplants, construction of new facilities and availability of alternative service providers.

Commercial/IndustrialCogeneration <20 MW

The commercial/industrial cogeneration segment is generally made up of customers generating less than 20 MW of power. All the cogeneration units in this segment are installed primarily to generate electricity for internal consumption rather than for the sale of power to electric utilities. In 1999, recorded gas deliveries to this market were 26.1 Bcf, a decrease of 0.9 Bcf from 1998. Commercial/industrial cogeneration demand is projected to be stable at 26 Bcf for the next 20 years.

Commercial/Industrial Cogeneration >20 MW

Commercial/industrial cogeneration greater than 20 MW is forecast to decline 21.7% per year, from 63 Bcf in 2000 to 14 Bcf in 2005. The primary factors contributing to this decline are the buyout of the energy and capacity payments in existing cogeneration power contracts, the transition to energy payments based on the wholesale power market, and bypass assumed in 2003. The forecast for this segment is based on a power market simulation for the period to 2005. Given uncertainty regarding future power market conditions, gas use was increased by 2.0% per year, consistent with the general increase in electric sales during the period 2006 through 2020.

EOR-Related Cogeneration

In 1999, recorded gas deliveries to the EOR-related cogeneration market were 31.6 Bcf, a decrease of 8.4 Bcf from 1998. This decrease is mainly due to the shutdown of two cogeneration plants and the decrease in operating time of another plant as a result of electric industry restructuring. In addition, there was increased bypass to the Kern/Mojave Pipeline following sale and exchange of several oil properties between oil producers. EOR-related cogeneration demand is expected to be 25.5 Bcf in 2000 and to stay at that level until 2008 when usage on SoCalGas' system will start to drop due to the expiration of several EOR long-term gas transportation contracts. Demand is forecast to level off in 2010 at 3.8 Bcf and remain at that level for the remainder of the forecast period.

Non-Cogeneration Electric Generation

SoCalGas forecasts a decline in retail non-cogeneration EG gas requirements of 11.2% per year, from 225 Bcf in 2000 to 111 Bcf in 2005. The forecast for the Los Angeles Department of Water and Power (LADWP) is based on the forecast LADWP submitted for this report. The forecast for SoCalGas' remaining EG customers through 2005 is based on a simulation of EG economic and reliability-related generation in the region known as the Western Systems Coordinating Council. The forecast decline in gas use is primarily the result of new off-system generation development, and reduced on-system generator operation. SoCalGas' forecast includes approximately 25,000 MW of the over 40,000 MW of generation announced for development in the WSCC to region to-date. Key assumptions are based on data provided in state and federal regulatory filings. Due to uncertainty regarding future generation development, EG gas use was increased by 2.0% per year consistent with the general increase in electric sales during the period 2006 through 2020.

Enhanced Oil Recovery — Steam

Recorded deliveries to the EOR steaming market in 1999 were 9.2 Bcf, a decrease of 1.7 Bcf from 1998. This decrease is due to continued low oil prices in early 1999 and to increased usage of gas transportation from the Kern/Mojave Pipeline after the sale and exchange of oil properties between oil producers. EOR steaming demand is expected to decline slightly in 2000 to 8.8 Bcf and remain at that level until SoCalGas' EOR long-term gas transportation contracts terminate in late 2008. From 2009 through the end of the forecast period, usage is expected to be approximately 7.3 Bcf. These figures include gas delivered to PG&E's EOR customers through interutility exchange. In 1999, 0.1 Bcf of gas was delivered to PG&E through such arrangements. No change in demand is expected in this exchange. The EOR-related cogeneration demand is discussed in the Electric Generation section.

Fuel oil prices are not expected to reach a level that would initiate any major expansion in EOR operations during the forecast period. As a result, EOR production is expected to gradually decline by approximately 2% per year with a corresponding decline in gas usage. In addition, oil producers will rely increasingly on the interstate pipelines in California to supplant traditional supply sources, such as own source gas and gas transported through SoCalGas' transmission system.

Mexicali

SoCalGas expects to transport 5 Bcf to Mexicali, Baja California, Mexico, in 2000. Mexicali load, primarily industrial, is expected to grow at an average rate of 5.8% per year, to 6.7 Bcf in 2004. Mexicali load is served by SoCalGas under long term contract and is expected to remain steady at 7 Bcf from 2005 to 2011.

Wholesale

The forecast of wholesale gas demand includes sales to SDG&E, the City of Long Beach Gas and Electric Department (Long Beach), Southwest Gas Corporation (Southwest Gas), and the City of Vernon (Vernon).

The non-EG gas demand forecast for SDG&E is based on the long-term demand forecast prepared by SDG&E for this report. Under average temperature conditions, total non-EG requirements for SDG&E are expected to increase from 56 Bcf in 2000 at an average growth rate of 1.4% per year to 75 Bcf in 2020.

The forecast of EG-related load is subject a high degree of uncertainty associated with continued operation of existing electric powerplants, construction of new facilities and availability of alternative service providers. Forecasted growth of SDG&E's cogeneration and non-cogeneration EG gas use is 3% per year, from 73 Bcf in 2000 to 39 Bcf in 2020. SDG&E's EG requirements are expected to change by -12% per year from 73 Bcf in 2000 to 33 Bcf in 2005 based on a simulation of EG economic and reliability-related generation in the region known as the Western Systems Coordinating Council. The forecast decline in gas use is primarily as a result of new off-system generation development and reduced on-system generator operation. Key assumptions are based on data provided in state and federal regulatory filings. Due to the uncertainty regarding future generation development, SDG&E's EG gas load, excluding cogeneration, was increased by 2% per year consistent with the general increase in electric sales during the period 2006 through 2020.

For Long Beach, SoCalGas used the forecast prepared by Long Beach for this report. Long Beach use is expected to increase gradually from 11.9 Bcf per year to 12 Bcf in 2020. Long Beach's local own-source deliveries are expected to decrease from 3.7 Bcf to 2.8 Bcf in 2020. SoCalGas deliveries to Long Beach are expected to increase from 8.2 Bcf, per year, to 9.1 Bcf in 2020.

The demand forecast for Southwest Gas is based on a long-term demand forecast prepared by Southwest Gas. In 2000, SoCalGas will serve approximately 5.8 Bcf directly, with another 3.5 Bcf being served by PG&E under exchange arrangements with SoCalGas. The direct service load is expected to grow steadily by 2% per year throughout the forecast period to approximately 8.6 Bcf in 2020.

The wholesale forecast includes gas service to Vernon, which is expected to implement retail distribution service during the forecast period.

Natural Gas Vehicles

In November 1995, the Commission issued a decision regarding low emission vehicle (LEV) programs which approved, among other things, continued ratepayer support for customer information, education and training. Although the decision eliminated ratepayer support for construction of new public access refueling stations on customer property and monetary incentives to purchase NGVs, the availability of public funds has allowed the NGV market to continue to grow. SoCalGas' customer information, education and training program facilitates this growth by providing valuable guidance to potential new NGV customers as well as those customers who plan to expand their NGV fleet.

At the end of 1999, 104 fueling stations served approximately 8,000 vehicles that consumed 2.3 Bcf of compressed natural gas (CNG) for the year. SoCalGas remains optimistic about the NGV market growth, forecasting an increase in demand to 9.3 Bcf in 2010 and 15.0 Bcf in 2020. Although SoCalGas is in the final stages of divesting its fueling stations located on customer property, we expect the forecasted growth will be adequately served by a growing CNG refueling station industry. The growth is being propelled by the private and public sectors, with customer support from the LEV authorized program.

While most NGVs in 1992 were after-market conversions, today's light-duty NGV market is dominated by Original Equipment Manufacturer (OEM) vehicles. Today, light-duty NGV products are offered by Ford, GM, Honda, DaimlerChrysler and Toyota. In the medium- and heavy-duty vehicle arena there are more than 35 available engine/vehicle products for transit districts, school districts, refuse vehicles and street sweepers. Although repowering of medium and heavy-duty vehicles still exist, the market is dominated with new OEM vehicles. However, repowering of medium- and heavy-duty vehicles is still a very popular option.

Reduced vehicle emissions continue to be a major benefit of NGVs. With emissions that are a fraction of California's Ultra Low Emission Vehicle (ULEV) emissions standard, new Ford and Honda products are the cleanest vehicles of their type ever seen in the market. In the heavy-duty market, NGV low emissions have the potential to generate greater air quality improvements. In this arena, Cummins and other manufacturers are certifying its new heavy-duty natural gas engines to a California Air Resources Board (CARB) optional 2.5 gram Nox plus NMHC standard that is approximately one-half the level currently required. With purchase incentives that could include emission reduction credits, tax credits, and direct grants, SoCalGas expects that NGVs will continue to provide an attractive option for customers.

Beginning July 1, 2000, Caltrans, California State Department of Motor Vehicles and the California Highway Patrol will give the environmentally minded commuters another opportunity to drive more natural gas vehicles. On that day California drivers of dedicated natural gas vehicles will be legally able to use the carpool lanes regardless of number of passengers in their vehicle. This will help to advance the use of natural gas vehicles and to increase the use of CNG as a vehicle fuel.

Recent high gasoline prices have also spurred more curiosity about NGVs. This year, gasoline prices at the pump have increased to almost \$2.00 per gallon, while NGV fuel hovered at about \$1.15 per gasoline gallon equivalent on the average. This type of margin coupled with other tax incentives is expected to encourage the use of more NGVs.

¹ From the following sources: the South Coast Air Quality Management District (SCAQMD), the Mobile Source Review Committee (MSRC), the California Energy Commission (CEC), the Department of Energy's (DOE) Clean Cities Program, and other air pollution control districts

² Existing engines are replaced with new natural gas engines in vehicles that have a long useful life.

DEMAND-SIDE MANAGEMENT

The cumulative net DSM load impact forecast for selected years is provided in Table 1. The net load impact includes all DSM programs that SoCalGas forecasted to implement in the years 2000 and 2001. Savings and goals for these programs are based on SoCalGas' 1999 DSM application to the Commission.

Conservation and energy efficiency activities encourage customers to install energy efficient equipment and weatherization measures and adopt energy saving practices that result in reduced gas usage for a comparable level of service. Conservation and energy efficiency load impacts are shown as positive numbers. The "total net load impact" is the natural gas throughput reduction resulting from SoCalGas' conservation programs.

Savings reported are for measures installed under SoCalGas' DSM programs. Credit is only taken for measures that are installed as a result of SoCalGas' DSM programs, and only for the lifetimes of the measures installed. Measures with lifetimes less than the forecast planning period fall out of the forecast when their expected lifetime is reached. This means, for example, that a measure installed in 2000 with a lifetime of 10 years is only included in the forecast through 2009. Naturally occurring conservation that is not attributable to SoCalGas' DSM activities is not included in the DSM forecast.

Table 1 DSM Load Impact Forecast for Selected Years (MMcf)

Conservation "Hard"	2000	2001	2002	2004	2009	2014
Core Residential	395	789	789	789	772	563
Core Commercial	139	277	277	259	259	69
Core Industrial	62	124	124	124	124	124
SUBTOTAL	595	1,190	1,190	1,173	1,156	757
Conservation "Soft"						
Core Residential	71	143	143	26	26	0
Core Commercial	75	150	150	3	3	0
Core Industrial	66	133	133	0	0	0
SUBTOTAL	213	426	426	30	30	0
Net Load Impact						
Core Residential	466	932	932	815	799	563
Core Commercial	213	427	427	263	263	69
Core Industrial	129	257	257	124	124	124
TOTAL NET LOAD IMPACT	808	1,616	1,616	1,202	1,186	757

Notes:

1. DSM load impacts include 2000 and 2001 program savings, but do not include pre-2000 program savings
2. "Hard" impacts include measures requiring a physical equipment modification or replacement
3. "Soft" impacts include energy management services type measures.
4. DSM impacts assume a heating value of 1015.35 Btu/cubic foot of natural gas.

CAPACITY, SOURCES, AND STORAGE

INTERSTATE PIPELINE CAPACITY

Southern California continues to operate in an environment of excess interstate pipeline capacity. Interstate pipeline delivery capability into southern California is over 4,000 MMcf/day, with approximately 3,230 MMcf/day available directly to SoCalGas customers (the remaining interstate capacity serves local distribution company bypass customers). These pipeline systems provide access to several large supply basins, located in: New Mexico (San Juan Basin), West Texas (Permian Basin), Rocky Mountains and Western Canada. The interstate pipeline systems, along with local California gas supplies, deliver gas to most southern California customers through SoCalGas.

The following interstate pipeline volumes and local production can be delivered to SoCalGas customers on a firm basis using intrastate transmission capacity:

Interstate and Local Volumes MMcf/day

Current Firm Capacity ⁽³⁾	
El Paso at Blythe	1,210
El Paso at Topock	540
Transwestern at Needles	750
Mojave at Hector Road ⁽⁴⁾	50
PG&E, Kern/Mojave & OXY at Wheeler Ridge	680
Existing Firm Intrastate Capacity	3,230
California Production ⁽⁵⁾	270
Total Firm Supply Access	3,500

Gas industry restructuring (GIR) proposals pending before the Commission for SoCalGas customers may unbundle local distribution company intrastate transmission capacity by creating tradable firm intrastate capacity rights.

³ Firm Capacity with matching intrastate capacity only. Does not include interruptible or excess upstream capacity. An additional 700 MMcf/day is available directly to southern California customers from the Kern River and Mojave pipelines.

⁴ Hector Road will become a formal receipt point as part of GIR.

⁵ California production available to SoCalGas customers via Line 85 and the North Coastal system.

GAS SUPPLY SOURCES

Southern California receives gas supplies from several sedimentary basins in the western United States and Canada.

California Gas

Gas supply available to SoCalGas from California sources (state onshore plus state/federal offshore supplies) was about 300 MMcf/day in 1999. By late 2000, supplies from California sources are expected to increase due to additional deliveries from Elk Hills.

Southwestern U.S. Gas

Traditional Southwestern U.S. sources of natural gas, especially from the San Juan basin, will continue to supply most of southern California's natural gas demand. This gas is delivered via the El Paso Natural Gas Company and Transwestern Pipeline Company pipelines. The majority of San Juan basin gas is coalbed methane production, which has recently reached a plateau. Although the Unconventional Fuels Tax Credit (which expires in 2003) provides producers an incentive to produce as much gas as possible from wells drilled before 1993, coalbed methane drilling is still profitable in the San Juan Basin and parts of Utah and Wyoming. The San Juan Basin's conventionally produced gas supplies have increased since 1991 and are expected to help meet southern California's gas demand. Permian Basin gas will continue as the primary swing supply into California.

Rocky Mountain Gas

Rocky Mountain supply presents a viable alternative to traditional Southwestern U.S. gas sources for southern California. This gas is delivered to southern California primarily on the Kern River Gas Transmission Company's pipeline, although there is also access through the San Juan Basin. While the majority of Rocky Mountain gas is conventional gas supplies, substantial gas supplies also qualify for the Unconventional Fuels Tax Credit through year 2003 - mainly as tight formation gas and some as coal seam gas. In recent years, Rocky Mountain gas has increasingly flowed to Midwestern and Pacific Northwest markets.

Canadian Gas

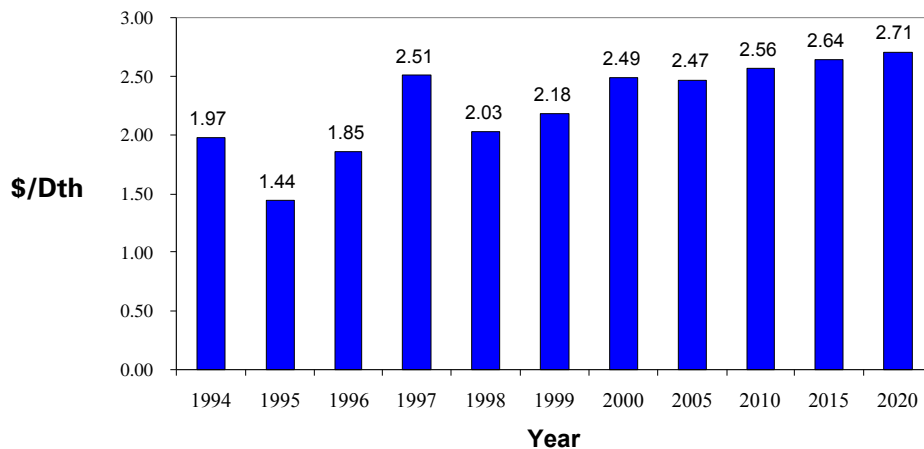
Reduced volumes of Canadian gas will supplement southern California's demand during the forecast period. New pipeline capacity out of western Canada to the Midwest and eastern U.S. are likely to move Canadian gas away from California. Increased gas deliveries from the Permian Basin to California are expected to replace these supplies.

GAS PRICE FORECAST

Forecast

SoCalGas' core weighted average cost of gas (WACOG) forecast at the California/Arizona border, indicates a more than 14 percent increase in the real price for 2000 over 1999 annual averages. The upward pressure on natural gas prices has been significant since the beginning of the new millennium mainly due to a combination of surging oil prices, strong growth in natural gas consumption, limited production capacity, and a return to normal weather after a period of abnormally mild weather. This price level is expected to remain fairly constant through 2005, followed by real price growth of about 0.7 percent per year, thereafter, over the remainder of the forecasting period through year 2020. The core WACOG is expected to exhibit a long-term real average annual price increase of 1.4 percent per year for the period 1999 through 2020. This level of real price growth is consistent with expected sustained long-term growth in natural gas demand and the pace of supply build-up.

**CORE WACOG SOUTHERN CALIFORNIA
(1998 \$/Dth)**



Development of the Forecast

SoCalGas developed its gas price forecast in February 2000 using statistical trending relationships combined with judgmental factors for the impacts associated with penetration of gas, supply technology, productivity enhancements, coupled with competitive pressures of expected electricity market de-regulation initiatives of state and federal regulatory agencies. SoCalGas' analysts form their judgment of gas demand, supply and price trends based on participation in workshops and through periodic meetings/discussions with key staff members of California, federal, and Canadian regulatory agencies' gas market analytical staffs. Periodic reviews of studies and forecasts by gas industry and governmental agencies are also used.

Forecast Uncertainty

It is important to recognize that the future is unknown and no price forecast can be expected to account for all uncertainties. SoCalGas, in its price forecast, attempts to identify a long-term trend that is consistent with key assumptions about gas market structure, regulation, economic alternative fuel options that consumers may have, and the underlying gas supply economics associated with North American natural gas reserves and resources.

RETAIL CORE PEAK DAY DEMAND

SoCalGas plans and designs its system to provide uninterrupted continuous service to its core customers under an extreme peak day event. The extreme peak day design criteria is defined as a 1-in-35 year event; this correlates to a system average temperature of 38°F. Demand on an extreme peak day is met through a combination of withdrawals from underground storage facilities and flowing pipeline supplies. The following table summarizes the forecasted retail core demand and the supplies required to provide firm core service on a peak day.

**Retail Core Peak Day Demand And
Supply Requirements
(MMcf/Day)**

	2000	2005	2010	2015
Retail Core Demand	3,186	3,348	3,533	3,721
Firm Storage Withdrawal	1,935	2,033	2,146	2,260
Required Flowing Supplies	1,732	1,820	1,921	2,023

Notes:

Firm withdrawal and flowing supply requirements are shown to increase proportionally with demand growth. Firm withdrawal plus firm pipeline supplies must be sufficient to meet peak day and peak hour operating requirements. GIR may provide core customers with additional options to meet their peak requirements in the future.

2000
California
Gas
Report

***SOUTHERN CALIFORNIA GAS COMPANY
TABULAR DATA***

Southern California Gas Company

ANNUAL GAS SUPPLY AND SENDOUT - MMCF/DAY RECORDED YEARS 1995 TO 1999

LINE	SUPPLIES AVAILABLE	1995	1996	1997	1998	1999	LINE
1	California Source Gas						1
	Firm Out-of-State Capacity						
2	California Offshore -POPCO / PIOC						2
3	El Paso Natural Gas Co.						3
4	Transwestern Pipeline Co.						4
5	Kern / Mojave						5
6	PGT / PG&E						6
7	Other						7
8	Total Out-of-State Gas						8
9	TOTAL CAPACITY AVAILABLE						9
	GAS SUPPLY TAKEN						
10	California Source Gas	228	219	236	250	271	10
	Out-of-State Gas						
11	Pacific Interstate Companies	270	269	263	277	111	11
12	Other Out-of-State	2,105	1,840	2,085	2,242	2,412	12
13	Total Out-of-State Gas	2,375	2,110	2,348	2,519	2,523	13
14	TOTAL SUPPLY TAKEN	2,603	2,329	2,584	2,769	2,794	14
15	Net Underground Storage Withdrawal	(34)	115	(8)	(79)	6	15
16	TOTAL THROUGHPUT (1) (2)	2,569	2,443	2,576	2,689	2,800	16
	ACTUAL DELIVERIES BY END-USE (3)						
17	Core Residential	656	645	657	744	761	17
18	Commercial	180	166	178	195	203	18
19	Industrial	51	49	51	54	54	19
20	SUBTOTAL	887	860	886	993	1,018	20
21	Noncore Commercial	57	66	70	70	71	21
22	Industrial	293	349	365	370	377	22
23	EOR Steaming	43	35	41	29	25	23
24	Electric Generation	935	750	808	750	856	24
25	SUBTOTAL	1,328	1,200	1,284	1,219	1,329	25
26	Wholesale Residential	109	110	111	125	134	26
27	Com & Ind. Others	79	83	85	86	87	27
28	Electric Utilities	155	162	182	206	181	28
29	SUBTOTAL	343	355	378	417	402	29
30	International DGN	0	0	1	6	11	30
31	Co. Use & LUAF	11	28	27	55	40	31
32	SYSTEM TOTAL-THROUGHPUT (1)	2,569	2,443	2,576	2,689	2,800	32
	TRANSPORTATION AND EXCHANGE						
33	Core All End Uses	42	40	40	38	42	33
34	Noncore Commercial/Industrial	283	376	410	428	439	34
35	EOR Steaming	43	35	41	29	25	35
36	Electric Generation	933	747	806	749	855	36
37	Subtotal - Retail	1,301	1,198	1,297	1,244	1,361	37
38	Wholesale All End Uses	343	355	378	417	402	38
39	International DGN	0	0	1	6	11	39
40	TOTAL TRANSPORTATION & EXCHANGE	1,644	1,553	1,676	1,667	1,774	40
	CURTAILMENT (RETAIL & WHOLESALE)						
41	Core	0	0	0	0	0	41
42	Noncore	0	0	0	0	0	42
43	TOTAL - Curtailment	0	0	0	0	0	43
44	REFUSAL	0	0	0	0	0	44

NOTES:

- (1) Figures exclude pipeline bypass load losses due to non-jurisdictional gas suppliers. 420 409 411 392 395
- (2) Excludes own-source gas supply of procurement by Edison and the City of Long Beach. 31 19 19 19 10
- (3) Actual deliveries by end-use includes sales, transportation, and exchange volumes.

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY FORCAST YEARS 2000 THRU 2004 AVERAGE TEMPERATURE YEAR

FIRM CAPACITY AVAILABLE		2000	2001	2002	2003	2004	LINE
1	California Source Gas	270	270	270	270	270	1
	<u>Out-of-State Gas</u>						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Tranwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Majove, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	
8	TOTAL CAPACITY AVAILABLE ⁽¹⁾	3,500	3,500	3,500	3,500	3,500	8
GAS SUPPLY TAKEN							
9	California Source Gas	270	270	270	270	270	9
10	Out-of-state	2,555	2,487	2,337	2,102	2,095	10
11	TOTAL SUPPLY TAKEN	2,825	2,757	2,607	2,372	2,365	11
12	Net Underground Storage Withdrawl	0	0	0	0	0	12
13	TOTAL THROUGHPUT ^{1/, 2/}	2,825	2,757	2,607	2,372	2,365	13
REQUIREMENTS FORECAST BY END-USE ^{3/}							
14	CORE Residential	692	698	704	710	716	14
15	Commercial	194	197	200	203	206	15
16	Industrial	50	49	49	49	49	16
17	NGV	7	11	12	14	15	17
18	Subtotal-CORE	943	955	965	976	986	18
19	NONCORE Commercial	71	72	72	72	73	19
20	Industrial	386	394	392	391	389	20
21	EOR Steaming	24	24	24	24	24	21
22	Electric Generation (EG)	928	816	612	478	502	22
23	Subtotal- NONCORE	1,409	1,306	1,100	965	988	23
24	WHOLESALE Core	162	168	170	173	177	24
25	Noncore Excl. UEG	43	52	56	55	56	25
26	Electric Generation (EG)	199	207	249	138	94	26
27	Subtotal-WHOLESALE	404	427	475	366	327	27
28	INTERNATIONAL DGN (Mexicali)	14	15	16	18	18	28
29	Co. Use & LUAF	55	54	51	47	46	29
30	SYSTEM TOTAL THROUGHPUT ^{/1}	2,825	2,757	2,607	2,372	2,365	30
TRANSPORTATION AND EXCHANGE							
31	CORE All End Uses	46	50	51	53	54	31
32	NONCORE Commercial/Industrial	453	462	462	462	461	32
33	EOR Steaming	24	24	24	24	24	33
34	Electric Generation	927	815	611	477	501	34
35	Subtotal-RETAIL	1,450	1,352	1,148	1,016	1,040	35
36	WHOLESALE All End Uses	404	427	475	366	327	36
37	INTERNATIONAL All End Uses	14	15	16	18	18	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,868	1,794	1,639	1,400	1,385	38
CURTAILMENT (RETAIL & WHOLESALE)							
39	Core	0	0	0	0	0	39
40	Noncore	0	0	0	0	0	40
41	TOTAL - Curtailment	0	0	0	0	0	41

NOTES:

- ^{1/} Figures exclude pipeline bypass load losses to non-jurisdictional gas suppliers.
- ^{2/} Excludes own-source gas supply of gas procurement by the City of Long Beach.
- ^{3/} Requirement forecast by end-use includes sales, transportation, and exchange volumes.

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2005 THRU 2020 AVERAGE TEMPERATURE YEAR

FIRM CAPACITY AVAILABLE		2000	2001	2002	2003	2004	LINE
1	California Source Gas	270	270	270	270	270	1
	Out-of-State Gas						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Transwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Mojave, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	7
8	TOTAL CAPACITY AVAILABLE /1	3,500	3,500	3,500	3,500	3,500	8
GAS SUPPLY TAKEN							
9	California Source Gas	270	270	270	270	270	9
10	Out-of-State	2,095	2,119	2,132	2,236	2,353	10
11	TOTAL SUPPLY TAKEN	2,365	2,389	2,402	2,506	2,623	11
12	Net Underground Storage Withdrawal	0	0	0	0	0	12
13	TOTAL THROUGHPUT 1/, 2/	2,365	2,389	2,402	2,506	2,623	13
REQUIREMENTS FORECAST BY END-USE 3/							
14	CORE Residential	725	733	765	806	850	14
15	Commercial	209	212	222	234	242	15
16	Industrial	49	49	48	48	48	16
17	NGV	17	19	25	33	41	17
18	Subtotal-CORE	1,000	1,013	1,060	1,121	1,181	18
19	NONCORE Commercial	73	73	74	75	74	19
20	Industrial	389	384	381	379	374	20
21	EOR Steaming	24	24	20	20	20	21
22	Electric Generation (EG)	484	491	459	498	539	22
23	Subtotal-NONCORE	970	972	934	972	1,007	23
24	WHOLESALE Core	181	183	184	199	214	24
25	Noncore Excl. EG	57	62	62	63	63	25
26	Electric Generation (EG)	92	93	96	102	107	26
27	Subtotal-WHOLESALE	330	338	342	364	384	27
28	INTERNATIONAL DGN (Mexicali)	19	19	19	0	0	28
29	Co. Use & LUAF	46	47	47	49	51	29
30	SYSTEM TOTAL THROUGHPUT /1	2,365	2,389	2,402	2,506	2,623	30
TRANSPORTATION AND EXCHANGE							
31	CORE All End Uses	56	58	65	73	81	31
32	NONCORE Commercial/Industrial	461	457	455	452	447	32
33	EOR Steaming	24	24	20	20	20	33
34	Electric Generation (EG)	484	490	459	497	538	34
35	Subtotal-RETAIL	1,025	1,029	999	1,042	1,086	35
36	WHOLESALE All End Uses	330	338	342	364	384	36
37	INTERNATIONAL All End Uses	19	19	19	0	0	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,374	1,386	1,360	1,406	1,470	38
CURTAILMENT (RETAIL & WHOLESALE)							
39	Core	0	0	0	0	39	
40	Noncore	0	0	0	0	40	
41	TOTAL - Curtailment	0	0	0	0	41	

NOTES:

- | | | | | | |
|---|-----|-----|-----|-----|-----|
| 1/ Figures exclude pipeline bypass load losses of
to non-jurisdictional gas suppliers. | 531 | 540 | 593 | 583 | 558 |
| 2/ Excludes own-source gas supply of
gas procurement by the City of Long Beach | 9 | 9 | 9 | 8 | 8 |
| 3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes. | | | | | |

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY FORECAST YEARS 2000 THRU 2004 COLD TEMPERATURE YEAR

FIRM CAPACITY AVAILABLE		2000	2001	2002	2003	2004	LINE
1	California Source Gas	270	270	270	270	270	1
	Out-of-State Gas						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Transwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Mojave, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	7
8	TOTAL CAPACITY AVAILABLE /1	3,500	3,500	3,500	3,500	3,500	8
	GAS SUPPLY TAKEN						
9	California Source Gas	270	270	270	270	270	9
10	Out-of-State	2,681	2,616	2,465	2,230	2,226	10
11	TOTAL SUPPLY TAKEN	2,951	2,886	2,735	2,500	2,496	11
12	Net Underground Storage Withdrawal	0	0	0	0	0	12
13	TOTAL THROUGHPUT 1/, 2/	2,951	2,886	2,735	2,500	2,496	13
	REQUIREMENTS FORECAST BY END-USE 3/						
14	CORE Residential	784	792	798	805	812	14
15	Commercial	206	210	212	215	219	15
16	Industrial	52	50	50	50	50	16
17	NGV	7	11	12	14	15	17
18	Subtotal-CORE	1,049	1,063	1,072	1,084	1,096	18
19	NONCORE Commercial	71	72	72	72	73	19
20	Industrial	386	394	392	391	389	20
21	EOR Steaming	24	24	24	24	24	21
22	Electric Generation (EG)	928	816	612	478	502	22
23	Subtotal-NONCORE	1,409	1,306	1,100	965	988	23
24	WHOLESALE Core	179	186	188	191	195	24
25	Noncore Excl. EG	43	52	56	55	56	25
26	Electric Generation (EG)	199	207	249	138	94	26
27	Subtotal-WHOLESALE	421	445	493	384	345	27
28	INTERNATIONAL DGN (Mexicali)	14	15	16	18	18	28
29	Co. Use & LUAF	58	57	54	49	49	29
30	SYSTEM TOTAL THROUGHPUT /1	2,951	2,886	2,735	2,500	2,496	30
	TRANSPORTATION AND EXCHANGE						
31	CORE All End Uses	49	53	54	56	58	31
32	NONCORE Commercial/Industrial	453	463	462	462	461	32
33	EOR Steaming	24	24	24	24	24	33
34	Electric Generation (EG)	927	815	611	477	501	34
35	Subtotal-RETAIL	1,453	1,355	1,151	1,019	1,044	35
36	WHOLESALE All End Uses	421	445	493	384	345	36
37	INTERNATIONAL All End Uses	14	15	16	18	18	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,888	1,815	1,660	1,421	1,407	38
	CURTAILMENT (RETAIL & WHOLESALE)						
39	Core	0	0	0	0	0	39
40	Noncore	0	0	0	0	0	40
41	TOTAL - Curtailment	0	0	0	0	0	41

NOTES:

- 1/ Figures exclude pipeline bypass load losses of 423 431 442 514 524 to non-jurisdictional gas suppliers.
- 2/ Excludes own-source gas supply of 10 10 10 10 10 gas procurement by the City of Long Beach
- 3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2005 THRU 2020 COLD TEMPERATURE YEAR

LINE	SUPPLIES AVAILABLE	2005	2006	2010	2015	2020	LINE
1	California Source Gas	270	270	270	270	270	1
	Out-of-State Gas						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Transwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Mojave, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	7
8	TOTAL CAPACITY AVAILABLE /1	3,500	3,500	3,500	3,500	3,500	8
	GAS SUPPLY TAKEN						
9	California Source Gas	270	270	270	270	270	9
10	Out-of-State	2,228	2,252	2,271	2,384	2,510	10
11	TOTAL SUPPLY TAKEN	2,498	2,522	2,541	2,654	2,780	11
12	Net Underground Storage Withdrawal	0	0	0	0	0	12
13	TOTAL THROUGHPUT 1/, 2/	2,498	2,522	2,541	2,654	2,780	13
	REQUIREMENTS FORECAST BY END-USE 3/						
14	CORE Residential	822	831	868	916	966	14
15	Commercial	222	225	235	247	256	15
16	Industrial	50	50	50	50	50	16
17	NGV	17	19	25	33	41	17
18	Subtotal-CORE	1,111	1,125	1,178	1,246	1,313	18
19	NONCORE Commercial	73	73	74	75	74	19
20	Industrial	389	384	381	379	374	20
21	EOR Steaming	24	24	20	20	20	21
22	Electric Generation (EG)	484	491	459	498	539	22
23	Subtotal-NONCORE	970	972	934	972	1,007	23
24	WHOLESALE Core	199	202	202	219	235	24
25	Noncore Excl. EG	58	62	62	63	63	25
26	Electric Generation (EG)	92	93	96	102	107	26
27	Subtotal-WHOLESALE	349	357	360	384	405	27
28	INTERNATIONAL DGN (Mexicali)	19	19	19	0	0	28
29	Co. Use & LUAF	49	49	50	52	55	29
30	SYSTEM TOTAL THROUGHPUT /1	2,498	2,522	2,541	2,654	2,780	30
	TRANSPORTATION AND EXCHANGE						
31	CORE All End Uses	59	61	68	77	84	31
32	NONCORE Commercial/Industrial	461	457	455	452	447	32
33	EOR Steaming	24	24	20	20	20	33
34	Electric Generation (EG)	484	490	459	497	538	34
35	Subtotal-RETAIL	1,028	1,032	1,002	1,046	1,089	35
36	WHOLESALE All End Uses	349	357	360	384	405	36
37	INTERNATIONAL All End Uses	19	19	19	0	0	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,396	1,408	1,381	1,430	1,494	38
	CURTAILMENT (RETAIL & WHOLESALE)						
39	Core	0	0	0	0	0	39
40	Noncore	0	0	0	0	0	40
41	TOTAL - Curtailment	0	0	0	0	0	41

NOTES:

- 1/ Figures exclude pipeline bypass load losses of 531 540 593 583 558
to non-jurisdictional gas suppliers.
- 2/ Excludes own-source gas supply of 9 9 9 8 8
procurement by the City of Long Beach
- 3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2000 THRU 2004 HOT TEMPERATURE YEAR

LINE	SUPPLIES AVAILABLE	2000	2001	2002	2003	2004	LINE
1	California Source Gas	270	270	270	270	270	1
	Out-of-State Gas						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Transwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Mojave, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	7
8	TOTAL CAPACITY AVAILABLE /1	3,500	3,500	3,500	3,500	3,500	8
	GAS SUPPLY TAKEN						
9	California Source Gas	270	270	270	270	270	9
10	Out-of-State	2,431	2,364	2,212	1,974	1,967	10
11	TOTAL SUPPLY TAKEN	2,701	2,634	2,482	2,244	2,237	11
12	Net Underground Storage Withdrawal	0	0	0	0	0	12
13	TOTAL THROUGHPUT 1/, 2/	2,701	2,634	2,482	2,244	2,237	13
	REQUIREMENTS FORECAST BY END-USE 3/						
14	CORE Residential	599	605	610	615	620	14
15	Commercial	181	185	187	190	193	15
16	Industrial	48	47	47	47	47	16
17	NGV	7	11	12	14	15	17
18	Subtotal-CORE	835	848	856	866	875	18
19	NONCORE Commercial	71	72	72	72	73	19
20	Industrial	386	394	392	391	389	20
21	EOR Steaming	24	24	24	24	24	21
22	Electric Generation (EG)	928	816	612	478	502	22
23	Subtotal-NONCORE	1,409	1,306	1,100	965	988	23
24	WHOLESALE Core	148	154	156	158	162	24
25	Noncore Excl. EG	43	52	56	55	56	25
26	Electric Generation (EG)	199	207	249	138	94	26
27	Subtotal-WHOLESALE	390	413	461	351	312	27
28	INTERNATIONAL DGN (Mexicali)	14	15	16	18	18	28
29	Co. Use & LUAF	53	52	49	44	44	29
30	SYSTEM TOTAL THROUGHPUT /1	2,701	2,634	2,482	2,244	2,237	30
	TRANSPORTATION AND EXCHANGE						
31	CORE All End Uses	43	47	48	50	51	31
32	NONCORE Commercial/Industrial	453	463	462	462	461	32
33	EOR Steaming	24	24	24	24	24	33
34	Electric Generation (EG)	927	815	611	477	501	34
35	Subtotal-RETAIL	1,447	1,349	1,145	1,013	1,037	35
36	WHOLESALE All End Uses	390	413	461	351	312	36
37	INTERNATIONAL All End Uses	14	15	16	18	18	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,851	1,777	1,622	1,382	1,367	38
	CURTAILMENT (RETAIL & WHOLESALE)						
39	Core	0	0	0	0	0	39
40	Noncore	0	0	0	0	0	40
41	TOTAL - Curtailment	0	0	0	0	0	41

NOTES:

1/ Figures exclude pipeline bypass load losses of to non-jurisdictional gas suppliers.

2/ Excludes own-source gas supply of gas procurement by the City of Long Beach

3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

Southern California Gas Company

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2005 THRU 2020 HOT TEMPERATURE YEAR

LINE	SUPPLIES AVAILABLE	2005	2006	2010	2015	2020	LINE
1	California Source Gas	270	270	270	270	270	1
	Out-of-State Gas						
2	Mojave (Hector Road)	50	50	50	50	50	2
3	El Paso Natural Gas Co. (Blythe)	1,210	1,210	1,210	1,210	1,210	3
4	El Paso Natural Gas Co. (Topock)	540	540	540	540	540	4
5	Transwestern Pipeline Co. (No. Needles)	750	750	750	750	750	5
6	Kern-Mojave, PG&E, Oxy (Wheeler Ridge)	680	680	680	680	680	6
7	Total Out-of-State Gas	3,230	3,230	3,230	3,230	3,230	7
8	TOTAL CAPACITY AVAILABLE /1	3,500	3,500	3,500	3,500	3,500	8
	GAS SUPPLY TAKEN						
9	California Source Gas	270	270	270	270	270	9
10	Out-of-State	1,965	1,986	1,995	2,092	2,201	10
11	TOTAL SUPPLY TAKEN	2,235	2,256	2,265	2,362	2,471	11
12	Net Underground Storage Withdrawal	0	0	0	0	0	12
13	TOTAL THROUGHPUT 1/, 2/	2,235	2,256	2,265	2,362	2,471	13
	REQUIREMENTS FORECAST BY END-USE 3/						
14	CORE Residential	627	634	661	697	734	14
15	Commercial	197	199	209	220	228	15
16	Industrial	47	47	47	47	47	16
17	NGV	17	19	25	33	41	17
18	Subtotal-CORE	888	899	942	997	1,050	18
19	NONCORE Commercial	73	73	74	75	74	19
20	Industrial	389	384	381	379	374	20
21	EOR Steaming	24	24	20	20	20	21
22	Electric Generation (EG)	484	491	459	498	539	22
23	Subtotal-NONCORE	970	972	934	972	1,007	23
24	WHOLESALE Core	165	167	168	182	196	24
25	Noncore Excl. EG	57	62	62	63	63	25
26	Electric Generation (EG)	92	93	96	102	107	26
27	Subtotal-WHOLESALE	314	322	326	347	366	27
28	INTERNATIONAL DGN (Mexicali)	19	19	19	0	0	28
29	Co. Use & LUAF	44	44	44	46	48	29
30	SYSTEM TOTAL THROUGHPUT /1	2,235	2,256	2,265	2,362	2,471	30
	TRANSPORTATION AND EXCHANGE						
31	CORE All End Uses	53	55	62	70	78	31
32	NONCORE Commercial/Industrial	461	457	455	452	447	32
33	EOR Steaming	24	24	20	20	20	33
34	Electric Generation (EG)	484	490	459	497	538	34
35	Subtotal-RETAIL	1,022	1,026	996	1,039	1,083	35
36	WHOLESALE All End Uses	314	322	326	347	366	36
37	INTERNATIONAL All End Uses	19	19	19	0	0	37
38	TOTAL TRANSPORTATION & EXCHANGE	1,355	1,367	1,341	1,386	1,449	38
	CURTAILMENT (RETAIL & WHOLESALE)						
39	Core	0	0	0	0	0	39
40	Noncore	0	0	0	0	0	40
41	TOTAL - Curtailment	0	0	0	0	0	41

NOTES:

- 1/ Figures exclude pipeline bypass load losses of 531 540 593 583 558 to non-jurisdictional gas suppliers.
- 2/ Excludes own-source gas supply of 9 9 9 8 8 gas procurement by the City of Long Beach
- 3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

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***CITY OF LONG BEACH
GAS AND ELECTRIC DEPARTMENT***

CITY OF LONG BEACH MUNICIPAL GAS & ELECTRIC DEPARTMENT

The annual gas supply and requirements for the City of Long Beach Gas & Electric Department (Long Beach) are shown on the following tables for the years 1995 through 1999 and the estimated years 2000 through 2020. Long Beach prepared all forecasted requirements.

Serving approximately 149,000 customers, Long Beach is the largest California municipal gas utility and the fifth largest municipal gas utility in the United States. Long Beach's service territory includes the cities of Long Beach and Signal Hill, and sections of surrounding communities including Lakewood, Bellflower, Compton, Seal Beach, Paramount, and Los Alamitos. Long Beach's customer load profile is 50 percent residential and 50 percent commercial/industrial.

As a municipal utility, Long Beach's rates and policies are established by the City Council, which acts as the regulatory authority. The City Charter requires the gas utility to establish its rates comparable to the rates charged by surrounding gas utilities for similar types of service.

Long Beach receives approximately one third of its gas supply directly into its pipeline system from local production fields that are located within Long Beach's service territory, as well as offshore. Local gas production was previously forecast to increase slightly; however, analyses of updated data results in a forecast of slowly declining production volume. The other two thirds of Long Beach's gas supply is purchased at the California border, primarily from the Southwestern United States. Long Beach, as a wholesale customer, receives intrastate transmission service for this gas from SoCalGas.

Anticipating stringent new air-quality emission standards by the South Coast Air Quality Management District, Long Beach has continued its very aggressive natural gas vehicle (NGV) program and is recognized as a leader in NGVs. Long Beach currently has five CNG fueling stations. The public fueling stations provide for 24-hour access and are used by both private and public fleets.

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***CITY OF LONG BEACH GAS AND ELECTRIC
DEPARTMENT - TABULAR DATA***

City of Long Beach Gas and Electric Department

ANNUAL GAS SUPPLY AND SENDOUT - MMCF/DAY RECORDED YEARS 1995 THRU 1999

LINE	GAS SUPPLY AVAILABLE	1995	1996	1997	1998	1999	LINE
	California Source Gas						
1	Regular Purchases						1
2	Received for Exchange/Transport						2
3	Total California Source Gas						3
4	Purchases from Other Utilities						4
	Out-of-State Gas						
5	Pacific Interstate Companies						5
6	Additional Core Supplies						6
7	Incremental Supplies						7
8	Out-of-State Transport						8
9	Total Out-of-State Gas						9
10	Subtotal						10
11	Underground Storage Withdrawal						11
12	GAS SUPPLY AVAILABLE						12
	<u>GAS SUPPLY TAKEN</u>						
	California Source Gas						
13	Regular Purchases	12	11	11	11	10	13
14	Received for Exchange/Transport	0	0	0	0	0	14
15	Total California Source Gas	12	11	11	11	10	15
16	Purchases from Other Utilities	0	0	0	0	0	16
	Out-of-State Gas						
17	Pacific Interstate Companies	0	0	0	0	0	17
18	Additional Core Supplies	0	0	0	0	0	18
19	Incremental Supplies	21	21	21	25	27	19
20	Out-of-State Transport	0	0	0	0	0	20
21	Total Out-of-State Gas	21	21	21	25	27	21
22	Subtotal	33	32	32	36	37	22
23	Underground Storage Withdrawal	0	0	0	0	0	23
24	TOTAL Gas Supply Taken & Transported	33	32	32	36	37	24

City of Long Beach Gas and Electric Department

ANNUAL GAS SUPPLY AND SENDOUT - MMCF/DAY RECORDED YEARS 1995 THRU 1999

LINE	ACTUAL DELIVERIES BY END-USE		1995	1996	1997	1998	1999	LINE
1	CORE	Residential	15	16	16	18	18	1
2	CORE/NONCORE	Commercial	8	8	7	7	7	2
3	CORE/NONCORE	Industrial	9	9	9	10	10	3
4		Subtotal	32	33	31	35	36	4
5	NON CORE	Non-EOR Cogeneration	0	0	0	0	0	5
6		EOR Cogen. & Steaming	0	0	0	0	0	6
7		Electric Utilities	0	0	0	0	0	7
8		Subtotal	0	0	0	0	0	8
9	WHOLESALE	Residential	0	0	0	0	0	9
10		Com. & Ind., others	0	0	0	0	0	10
11		Electric Utilities	0	0	0	0	0	11
12		Subtotal-WHOLESALE	0	0	0	0	0	12
13		Co. Use & LUAF	1	0	0	1	0	13
14		Subtotal-END USE	33	33	31	36	36	14
15		Storage Injection	0	0	0	0	0	15
16		SYSTEM TOTAL-THROUGHPUT	33	33	31	36	36	16
<u>ACTUAL TRANSPORTATION AND EXCHANGE</u>								
17		Residential	N/A	N/A	N/A	N/A	N/A	17
18		Commercial/Industrial	N/A	N/A	N/A	N/A	N/A	18
19		Non-EOR Cogeneration	N/A	N/A	N/A	N/A	N/A	19
20		EOR Cogen. & Steaming	N/A	N/A	N/A	N/A	N/A	20
21		Electric Utilites	N/A	N/A	N/A	N/A	N/A	21
22		Subtotal-RETAIL	21	21	21	25	27	22
23	WHOLESALE	All End Uses	0	0	0	0	0	23
24		TOTAL TRANSPORTATION & EXCHANGE	21	21	21	25	27	24
<u>ACTUAL CURTAILMENT</u>								
25		Residential	0	0	0	0	0	25
26		Commercial/Industrial	0	0	0	0	0	26
27		Non-EOR Cogeneration	0	0	0	0	0	27
28		EOR Cogen. & Steaming	0	0	0	0	0	28
29		Electric Utilites	0	0	0	0	0	29
30		Wholesale	0	0	0	0	0	30
31		TOTAL- Curtailment	0	0	0	0	0	31
32	REFUSAL		0	0	0	0	0	32

NOTE: Actual deliveries by end-use includes sales, transportation, and exchange volumes, but excludes actual curtailments.

City of Long Beach Gas and Electric Department

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2000 THRU 2004 AVERAGE TEMPERATURE YEAR

LINE	CAPACITY AVAILABLE	2000	2001	2002	2003	2004	LINE
1	California Source Gas						1
2	Out-of-State Gas						2
3	TOTAL CAPACITY AVAILABLE						3
<u>GAS SUPPLY TAKEN</u>							
4	California Source Gas	10	10	10	10	10	4
5	Out-of-State Gas	22	23	23	23	23	5
6	TOTAL SUPPLY TAKEN	33	33	33	33	33	6
7	Net Underground Storage Withdrawal	0	0	0	0	0	7
8	TOTAL THROUGHPUT (1)	33	33	33	33	33	8
<u>REQUIREMENTS FORECAST BY END-USE (1)</u>							
9	CORE Residential	16	16	15	15	16	9
10	Commercial	6	6	6	6	6	10
11	NGV	0	0	0	0	0	11
12	Subtotal-CORE	22	22	21	21	22	12
13	NONCORE Industrial	10	10	10	10	10	13
14	Non-EOR Cogeneration	1	1	1	1	1	14
15	EOR	0	0	0	0	0	15
16	Utility Electric Generation	0	0	0	0	0	16
17	NGV	0	0	0	0	0	17
18	Subtotal-NONCORE	11	11	11	11	11	18
19	Co. Use & LUAF	0	0	0	0	0	19
20	SYSTEM TOTAL THROUGHPUT (1)	33	33	32	32	33	20
21	SYSTEM CURTAILMENT	0	0	0	0	0	21
<u>TRANSPORTATION</u>							
22	CORE All End Uses	12	13	12	12	13	22
23	NONCORE Industrial	10	10	10	10	10	23
24	Non-EOR Cogeneration	1	1	1	1	1	24
25	EOR	0	0	0	0	0	25
26	Utility Electric Generation	0	0	0	0	0	26
27	Subtotal NONCORE	11	11	11	11	11	27
28	TOTAL TRANSPORTATION	23	24	23	24	24	28

(1) Requirement forecast by end-use includes sales and transportation volumes.

City of Long Beach Gas and Electric Department

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY ESTIMATED YEARS 2005 THRU 2015 AVERAGE TEMPERATURE YEAR

LINE	CAPACITY AVAILABLE	2005	2006	2010	2015	2020	LINE
1	California Source Gas						1
2	Out-of-State Gas						2
3	TOTAL CAPACITY AVAILABLE						3
<u>GAS SUPPLY TAKEN</u>							
4	California Source Gas	9	9	9	8	8	4
5	Out-of-State Gas	24	23	24	24	25	5
6	TOTAL SUPPLY TAKEN	33	32	33	32	33	6
7	Net Underground Storage Withdrawal	0	0	0	0	0	7
8	TOTAL THROUGHPUT (1)	33	32	33	32	33	8
<u>REQUIREMENTS FORECAST BY END-USE (1)</u>							
9	CORE Residential	16	16	16	15	16	9
10	Commercial	6	6	6	6	6	10
11	NGV	0	0	0	0	0	11
12	Subtotal-CORE	22	21	21	21	22	12
13	NONCORE Industrial	10	10	10	10	10	13
14	Non-EOR Cogeneration	1	1	1	1	1	14
15	EOR	0	0	0	0	0	15
16	Utility Electric Generation	0	0	0	0	0	16
17	NGV	0	0	0	0	0	17
18	Subtotal-NONCORE	11	11	11	11	11	18
19	Co. Use & LUAF	0	0	0	0	0	19
20	SYSTEM TOTAL THROUGHPUT (1)	33	32	32	32	33	20
21	SYSTEM CURTAILMENT	0	0	0	0	0	21
<u>TRANSPORTATION</u>							
22	CORE All End Uses	14	13	13	14	15	22
23	NONCORE Industrial	10	10	10	10	10	23
24	Non-EOR Cogeneration	1	1	1	1	1	24
25	EOR	0	0	0	0	0	25
26	Utility Electric Generation	0	0	0	0	0	26
27	Subtotal NONCORE	11	11	11	11	11	27
28	TOTAL TRANSPORTATION	25	24	24	25	26	28

(1) Requirement forecast by end-use includes sales and transportation volumes.

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***SAN DIEGO
GAS & ELECTRIC COMPANY***

SAN DIEGO GAS & ELECTRIC

San Diego Gas & Electric Company (SDG&E), a Sempra Energy company, is a combined gas and electric distribution utility serving more than three million people in San Diego County and southern Orange County. SDG&E's gas system distributes natural gas to 750,000 customers in San Diego County, including to electric generation power plants, which until their divestiture last year were owned by SDG&E. Total gas sales and transportation through SDG&E's system for 1999 was approximately 128 billion cubic feet (Bcf), which is an average of over 350 million cubic feet per day (MMcf/day).

GAS DEMAND

This projection of natural gas requirements reflects the rates and forecast planning assumptions from the Biennial Cost Allocation Proceeding approved recently by the California Public Utilities Commission. The outlook for gas sales and transportation demand, excluding electric generation (EG), is projected to be 11 percent higher by the end of this decade than the last long-term forecast contained in the *1998 California Gas Report*, increasing almost 10 Bcf through the year 2010. Annual EG demand using utility transportation, however, is expected to be reduced by 38 Bcf by then.

SDG&E develops forecasts of core and noncore sales and transportation customer gas consumption and peak demand for its service territory, with the exception of gas requirements for the fossil fuel power plants. Customer gas usage forecasts are derived from models that integrate demographic assumptions, economics, energy prices, conservation, marketing programs, building and appliance standards, weather, and other factors. These forecasting models use econometric techniques and end-use forecasting methodologies.

With the sale of SDG&E's power plants and combustion turbines in 1999, dispatch by the new owners is now independent of the distribution utility. As a result, the forecast of natural gas requirements for non cogeneration electric generation in San Diego and Baja California has been developed for this report by Southern California Gas Company (SoCalGas) to be consistent with other non-utility fossil generation assumptions. SDG&E's Natural Gas Vehicle (NGV) gas requirements projection assumes moderate growth due to federal, state and local incentives for the purchase of school and transit buses. The Metropolitan Transit Development Board is planning to add a significant number of new NGV buses, going from 130 to at least 275 vehicles over the next two years. Local public fueling infrastructure has leveled off at about 25 fueling stations, currently serving about 2,100 NGVs in San Diego County.

GAS SUPPLY

SDG&E procures natural gas supplies through short-term and spot-market purchases, primarily priced at the California border for delivery into the SoCalGas pipeline system. SDG&E has a long-term contract with El Paso Natural Gas Company for 10 MMcf/day of firm transportation capacity and for 52.5 MMcf/day on the PGT/PG&E pipeline system from Canada. Underground storage inventory rights for SDG&E's core gas customers totaling 6,000,000 decatherms are specified in the current one-year natural gas service contract with SoCalGas.

SDG&E procures gas under a gas procurement performance-based incentive mechanism that allows for the reasonableness of its gas purchases to be judged against a benchmark determined from spot market price indices. SDG&E develops a portfolio of supply and transportation contracts to provide low-cost natural gas consistent with its customer service obligation.

There is expected to be sufficient supply deliverability to SDG&E's gas system from the SoCalGas pipeline system and storage facilities. Gas delivery is made primarily through the Moreno-to-San Diego transmission pipeline.

PEAK DAY DEMAND AND DELIVERABILITY

SDG&E's design peak day gas demand consists of projected requirements for its core market of residential and small commercial customers, as well as a limited amount of retail noncore gas requirements. The peak day is expected to occur during the winter season due to demand for gas space heating. SDG&E plans to meet its design peak day gas demand from a combination of flowing gas supplies withdrawals from gas storage inventory.

SDG&E's gas transmission system is designed to provide a 100 percent level of service to all core customers under design peak day conditions. Because this design peak day is expected to occur only once every 35 years, the remaining capacity during non-peak conditions is available to serve noncore customers. During periods of cold weather or extremely high electric generation demand it may not always be possible to maintain a 100% level of service to all noncore customers under the current system design criteria.

The following table shows SDG&E's core gas demand forecast for the 1-in-35-year design peak day for the winter periods. This assumes that supplies from storage withdrawal are at SDG&E's maximum allowable rate under the terms of the current SoCalGas service contract and are used before out-of-state flowing gas supply purchases for the peak day core requirements. Any reduction in firm storage inventory withdrawal will result in an increased requirement for out-of-state flowing gas supplies.

Design Peak Day Forecast for Core Demand and Supplies (MMCF/DAY)			
	<u>2000-2001</u>	<u>2001-2002</u>	<u>2002-2003</u>
PEAK DAY DEMAND:	424	431	438
AVAILABLE SUPPLY			
Storage Withdrawal	225	225	225
Out-of-State Supply	<u>199</u>	<u>206</u>	<u>213</u>
TOTAL CORE SUPPLY:	424	431	438

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***SAN DIEGO GAS & ELECTRIC COMPANY
TABULAR DATA***

San Diego Gas & Electric

ANNUAL GAS SUPPLY AND REQUIREMENT RECORDED YEARS 1995-1999 MMCF/DAY

LINE		1995	1996	1997	1998	1999	LINE	
GAS SUPPLY AVAILABLE								
	California Source Gas							
1	Regular Purchases						1	
2	Received for Exchange/Transport						2	
3	Total California Source Gas						3	
4	Purchase from Other Utilities						4	
	Out of State Gas							
5	Pacific Interstate Companies						5	
6	Additional Core Supplies						6	
7	Supplemental Supplies						7	
8	Out-of-State Transport						8	
9	Total Out of State Gas						9	
10	GAS SUPPLY AVAILABLE						10	
11	Underground Storage Withdrawal						11	
<u>GAS SUPPLY TAKEN</u>								
	California Source Gas							
12	Regular Purchases		24	30	26	34	18	12
13	Received for Exchange/Transport		0	0	0	0	0	13
14	Total California Source Gas		24	30	26	34	18	14
15	Purchases from Other Utilities		0	0	0	0	0	15
	Out-of-State Gas							
16	Pacific Interstate Companies		0	0	0	0	0	16
17	Additional Core Supplies		0	0	0	0	0	17
18	Supplemental Supplies-Utility		225	232	253	279	200	18
19	Out-of-State Transport-Others		47	45	49	51	131	19
20	Total Out-of-State Gas		273	277	302	330	331	20
	TOTAL Gas Supply Taken & Transported		296	308	329	364	349	

**ANNUAL GAS SUPPLY AND SENDOUT
RECORDED YEARS 1995-1999
MMCF/DAY**

LINE			1995	1996	1997	1998	1999	LINE
ACTUAL DELIVERIES BY END-USE								
1	CORE	Residential	85	85	86	96	104	1
2		Commercial	34	34	35	37	41	2
3		Industrial	0	0	0	0	0	3
4		<i>Subtotal CORE</i>	119	119	120	134	144	4
5	NONCORE	Commercial	0	0	0	0	0	5
6		Industrial	23	27	29	26	22	6
7		Electric Utilities	152	158	178	203	178	7
8		<i>Subtotal -NONCORE</i>	175	185	207	229	201	8
9	WHOLESALE	All End Uses	0	0	0	0	0	9
10		<i>Co Use & LUAF</i>	3	4	1	1	4	10
11	TOTAL SYSTEM THROUGHPUT		296	308	329	364	349	11
ACTUAL TRANSPORT & EXCHANGE								
12	CORE	Residential	1	0	1	0	0	12
13		Commercial	5	4	3	4	5	13
14	NONCORE	Industrial	4	4	8	8	6	14
15		Electric Utilities	38	37	37	39	120	15
16		<i>Subtotal -RETAIL</i>	47	45	49	51	131	16
17	WHOLESALE	All End Uses	0	0	0	0	0	17
18	TOTAL TRANSPORT & EXCHANGE		47	45	49	51	131	18
STORAGE								
19		<i>Storage Injection</i>	14	19	19	18	15	19
20		<i>Storage Withdrawal</i>	20	19	23	9	27	20
ACTUAL CURTAILMENT								
21		Residential	0	0	0	0	0	21
22		Com/Indl & Cogen	0	0	0	0	0	22
23		Electric Utilities	0	0	0	0	0	23
	TOTAL CURTAILMENT		0	0	0	0	0	
24	REFUSAL		0	6	1	0	0	24

NOTE:

ACTUAL DELIVERIES BY END-USE includes sales and transportation volumes

MMbtu/Mcf: 1.019 1.014 1.009 1.010 1.009

San Diego Gas & Electric

**ANNUAL GAS SUPPLY AND REQUIREMENTS
FORECAST YEARS 2000-2004
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE		2000	2001	2002	2003	2004	LINE
GAS SUPPLY AVAILABLE							
	California Source Gas						
1	Regular Purchases	0	0	0	0	0	1
2	Received for Exchange/Transport	0	0	0	0	0	2
3	Total California Source Gas	0	0	0	0	0	3
4	Purchases from Other Utilities	0	0	0	0	0	4
	Out-of-State Gas						
5	Pacific Interstate Companies	0	0	0	0	0	5
6	Additional Core Supplies	0	0	0	0	0	6
7	Incremental Supplies (Utility)	154	157	159	161	164	7
8	Out-of-State Transport (for others)	202	210	251	141	97	8
9	Total Out-of-State Gas	356	367	410	302	261	9
10	GAS SUPPLY AVAILABLE	356	367	410	302	261	10
11	Underground Storage Withdrawal	16	16	16	16	16	11
GAS SUPPLY TAKEN							
	California Source Gas						
12	Regular Purchases	0	0	0	0	0	12
13	Received for Exchange/Transport	0	0	0	0	0	13
14	Total California Source Gas	0	0	0	0	0	14
15	Purchases from Other Utilities	0	0	0	0	0	15
	Out-of-State Gas						
16	Pacific Interstate Companies	0	0	0	0	0	16
17	Additional Core Supplies	0	0	0	0	0	17
18	Incremental Supplies (Utility)	157	157	159	161	164	18
19	Out-of-State Transport (for others)	202	202	251	141	141	19
20	Total Out-of-State Gas	359	359	410	302	305	20
21	TOTAL Gas Supply Taken & Transported	359	359	410	302	305	21
22	Underground Storage Withdrawal	16	16	16	16	16	22

**ANNUAL GAS SUPPLY AND REQUIREMENTS
FORECAST YEARS 2000-2004
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE			2000	2001	2002	2003	2004	LINE
REQUIREMENTS FORECAST BY END-USE								
1	CORE	Residential	92	94	95	97	99	1
2		Commercial	38	39	40	40	41	2
3		Industrial	0	0	0	0	0	3
4		NGV	1	1	1	1	1	4
5		Subtotal -CORE	131	134	136	138	141	5
6	NONCORE	Commercial	0	0	0	0	0	6
7		Industrial	23	23	23	24	24	7
8		Electric Generation	200	207	249	138	94	8
9		Subtotal -NONCORE	223	230	272	162	118	9
10	WHOLESALE	All End Uses	0	0	0	0	0	10
11		Co Use & LUAF	2	2	2	2	2	11
12	SYSTEM TOTAL - THROUGHPUT		356	366	411	302	261	12
13		Storage Injection	16	16	16	16	16	13
 <u>TRANSPORTATION & EXCHANGE</u>								
14	CORE	All End Uses	5	5	5	5	5	14
15	NONCORE	Commercial/Industrial	5	5	5	5	5	15
16		Electric Generation	192	199	241	130	86	16
17		Subtotal -RETAIL	202	209	251	141	97	17
18	WHOLESALE	All End Uses	0	0	0	0	0	18
19	TOTAL TRANSPORT & EXCHANGE		202	209	251	141	97	19
 <u>CURTAILMENT (RETAIL & WHOLESALE)</u>								
20		Core	0	0	0	0	0	20
21		Com/Ind. & Cogen.	0	0	0	0	0	21
22		Electric Generation	0	0	0	0	0	22
23		Total -CURTAILMENT	0	0	0	0	0	23
24	REFUSAL		0	0	0	0	0	24

NOTE: Requirement forecast by end-use includes sales, transportation and exchange volumes

San Diego Gas & Electric

**ANNUAL GAS SUPPLY AND REQUIREMENTS
FORECAST YEARS 2005-2020
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE		2005	2006	2010	2015	2020	LINE
GAS SUPPLY AVAILABLE							
	California Source Gas						
1	Regular Purchases	0	0	0	0	0	1
2	Received for Exchange/Transport	0	0	0	0	0	2
3	Total California Source Gas	0	0	0	0	0	3
4	Purchases from Other Utilities	0	0	0	0	0	4
	Out-of-State Gas						
5	Pacific Interstate Companies	0	0	0	0	0	5
6	Additional Core Supplies	0	0	0	0	0	6
7	Incremental Supplies (Utility)	167	169	179	192	205	7
8	Out-of-State Transport (for others)	95	96	100	106	112	8
9	Total Out-of-State Gas	262	265	279	298	317	9
10	GAS SUPPLY AVAILABLE	262	265	279	298	317	10
11	Underground Storage Withdrawal	16	16	16	16	16	11
GAS SUPPLY TAKEN							
	California Source Gas						
12	Regular Purchases	0	0	0	0	0	12
13	Received for Exchange/Transport	0	0	0	0	0	13
14	Total California Source Gas	0	0	0	0	0	14
15	Purchases from Other Utilities	0	0	0	0	0	15
	Out-of-State Gas						
16	Pacific Interstate Companies	0	0	0	0	0	16
17	Additional Core Supplies	0	0	0	0	0	17
18	Incremental Supplies (Utility)	167	169	179	192	205	18
19	Out-of-State Transport (for others)	95	96	100	106	112	19
20	Total Out-of-State Gas	262	265	279	298	317	20
21	TOTAL Gas Supply Taken & Transported	262	265	279	298	317	21
22	Underground Storage Withdrawal	16	16	16	16	16	22

**ANNUAL GAS SUPPLY AND REQUIREMENTS
FORECAST YEARS 2005-2020
MMCF/DAY
AVERAGE TEMPERATURE YEAR**

LINE			2005	2006	2010	2015	2020	LINE
REQUIREMENTS FORECAST BY END-USE								
1	CORE	Residential	100	102	110	120	129	1
2		Commercial	42	42	44	46	48	2
3		Industrial	0	0	0	0	0	3
4		NGV	2	2	2	2	3	4
5		<i>Subtotal -CORE</i>	143	146	155	168	180	5
6	NONCORE	Commercial	0	0	0	0	0	6
7		Industrial	24	24	25	26	26	7
8		Electric Generation	92	92	96	101	107	8
9		<i>Subtotal -NONCORE</i>	116	116	121	127	133	9
10	WHOLESALE	All End Uses	0	0	0	0	0	10
11		Co Use & LUAF	2	2	3	3	3	11
12	TOTAL SYSTEM THROUGHPUT		262	264	279	297	317	12
13		Storage Injection	16	16	16	16	16	13
<u>TRANSPORTATION & EXCHANGE</u>								
14	CORE	All End Uses	5	5	6	6	6	14
15	NONCORE	Commercial/Industrial	5	5	5	6	6	15
16		Electric Generation	84	85	89	94	100	16
17		<i>Subtotal -RETAIL</i>	95	96	100	106	112	17
18	WHOLESALE	All End Uses	0	0	0	0	0	18
19	TOTAL TRANSPORT & EXCHANGE		95	96	100	106	112	19
<u>CURTAILMENT (RETAIL & WHOLESALE)</u>								
20		Core	0	0	0	0	0	20
21		Com/Ind. & Cogen.	0	0	0	0	0	21
22		Electric Generation	0	0	0	0	0	22
23	Total -	CURTAILMENT	0	0	0	0	0	23
24	REFUSAL		0	0	0	0	0	24

NOTE: Requirement forecast by end-use includes sales, transportation and exchange volumes

2000
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Report

***LOS ANGELES DEPARTMENT
OF WATER AND POWER***

LOS ANGELES DEPARTMENT OF WATER AND POWER

The Los Angeles Department of Water and Power (LADWP), the nation's largest municipally owned utility, supplies water and electricity to approximately 3.6 million residents of the nation's second largest city. Throughout the last three decades, the LADWP has diversified its generation resources in order to spread the risk of fuel supply over a diverse array of generation facilities both inside and outside the Los Angeles basin. Recognizing the need to minimize the impact of electric generation on basin air quality, LADWP gradually achieved the goal of 100-percent gas utilization. Currently the LADWP basin gas generation facilities provide approximately 20 percent of annual generation needs, burning 54.2 Bcf in calendar year 1999.

Within the last 6 years, LADWP has seen a gas usage range from a high of 65 Bcf to a low consumption of 19 Bcf. The abundance of hydro generation and other economy energy purchase options have combined to limit basin gas-fired generation. Oil burning has been relegated to the status of emergency back up.

LADWP's natural gas demand forecast is presented in the following tables for 2000 through 2020. It should be noted this forecast assumes hydro generation based on average-year conditions. However, any deviation from average-year conditions can affect natural gas requirements significantly. Momentum from the recovering Los Angeles economy and customer efficiencies may also impact fuel use. LADWP's renewed commitment to alternative energy could also have major impacts.

LADWP holds large portions of firm capacity rights on interstate pipelines that are becoming more valuable with the passage of time. This capacity gives LADWP some flexibility in establishing its supply portfolio and provides a measure of security.

Recent changes in government regulation brought about by AB 1890 have dramatically changed the energy landscape in California. The mandate for open access and creation of the Independent System Operator (ISO) and Power Exchange (PX) will influence the LADWP's electric operations even though the LADWP has no current plans to join the ISO. Opportunities for power sales through the PX, as well as under bilateral agreements, currently provide a significant amount of revenue and will continue into the foreseeable future.

The LADWP is undergoing a significant corporate restructuring to achieve the necessary competitiveness to survive in a deregulated environment. Current plans call for significant debt reduction by 2003, enhanced services for existing customers, and flexibility to negotiate rates for large commercial/industrial customers.

Since LADWP owns 28 percent of the electric transmission into California, it intends to remain active in governmental regulatory activities, which affect electric transmission and generation activities, in addition to gas regulatory activities. Recent divestment of generation facilities by investor-owned utilities and the opening of California's electric grid have required a review of operations and relationships unprecedented in scope. Opportunities abound.

2000
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***LOS ANGELES DEPARTMENT OF
WATER AND POWER - TABULAR DATA***

Los Angeles Department of Water and Power

ANNUAL GAS SUPPLY AND SENDOUT RECORDED YEARS 1995-1999 MMCF/DAY

LINE		1995	1996	1997	1998	1999	LINE
GAS SUPPLY AVAILABLE							
1	California Source Gas						1
	Out-of-State Gas						
2	California Offshore - POPCO/PIOC						2
3	El Paso Natural Gas Co.						3
4	Transwestern Pipeline Co.						4
5	Kern /Mojave						5
6	PGT/PG&E						6
7	Other						7
8	TOTAL Out-of-State Gas						8
9	Subtotal						9
10	Underground Storage Withdrawal						10
11	TOTAL GAS SUPPLY AVAILABLE						11
GAS SUPPLY TAKEN							
12	California Source Gas	0	3	0	0	0	12
	Out-of-State Gas						
13	Pacific Interstate Companies	0	0	0	0	0	13
14	Other Out-of-State	132	58	54	82	148	14
15	Total Out-of-State Gas	132	58	54	82	148	15
16	Subtotal	132	61	54	82	148	
17	Underground Storage Withdrawal	0	0	0	0	0	17
18	TOTAL GAS SUPPLY TAKEN	132	61	54	82	148	18

Los Angeles Department of Water and Power

LOS ANGELES DEPARTMENT OF WATER AND POWER ANNUAL GAS SUPPLY AND SENDOUT RECORDED YEARS 1995-1999 MMCF/DAY

LINE	ACTUAL DELIVERIES BY END-USE	1995	1996	1997	1998	1999	LINE
1	CORE Residential	0	0	0	0	0	1
2	CORE/NONCORE Commercial	0	0	0	0	0	2
3	CORE/NONCORE Industrial	0	0	0	0	0	3
4	Subtotal	0	0	0	0	0	4
5	NONCORE Non-EOR Cogeneration	0	0	0	0	0	5
6	EOR Cogen. & Steaming	0	0	0	0	0	6
7	Electric Utilities	132	61	54	82	148	7
8	Subtotal	132	61	54	82	148	8
9	WHOLESALE Residential	0	0	0	0	0	9
10	Com. & Ind., others	0	0	0	0	0	10
11	Electric Utilities	0	0	0	0	0	11
12	Subtotal WHOLESale	0	0	0	0	0	12
13	Co. Use & LUAF	0	0	0	0	0	13
14	Subtotal-END USE	132	61	54	82	148	14
15	Storage Injection	0	0	0	0	0	15
16	SYSTEM TOTAL THROUGHPUT	132	61	54	82	148	16
<u>ACTUAL TRANSPORTATION AND EXCHANGE</u>							
17	CORE All End Uses	0	0	0	0	0	17
18	NONCORE Commercial/Industrial	0	0	0	0	0	18
19	Non-EOR Cogeneration	0	0	0	0	0	19
20	EOR Cogen. & Steaming	0	0	0	0	0	20
21	Electric Utilities	132	61	54	82	148	21
22	Subtotal-RETAIL	132	61	54	82	148	22
23	WHOLESALE All End Uses	0	0	0	0	0	23
24	TOTAL TRANSPORTATION & EXCHANGE	132	61	54	82	148	24
<u>CURTAILMENT (RETAIL & WHOLESALE)</u>							
25	Core	0	0	0	0	0	25
26	Noncore	0	0	0	0	0	26
27	TOTAL-Curtailment	0	0	0	0	0	27
28	REFUSAL	0	0	0	0	0	28

NOTE:

Actual deliveries by end-use include sales, transportation, and exchange volumes, but excludes actual curtailments.

LINE		2000	2001	2002	2003	2004	LINE
GAS SUPPLY AVAILABLE							
1	California Source Gas	0	0	0	0	0	1
	Out-of-State Gas						
2	California Offshore - POPCO/PIOC	0	0	0	0	0	2
3	El Paso Natural Gas Co.	36	36	36	36	36	3
4	Transwestern Pipeline Co.	0	0	0	0	0	4
5	Kern /Mojave	135	135	135	135	135	5
6	PGT/PG&E	0	0	0	0	0	6
7	Other	0	0	0	0	0	7
8	TOTAL Out-of-State Gas	171	171	171	171	171	8
9	Subtotal	171	171	171	171	171	9
10	Underground Storage Withdrawal	0	0	0	0	0	10
11	TOTAL GAS SUPPLY AVAILABLE	171	171	171	171	171	11
GAS SUPPLY TAKEN							
12	California Source Gas	0	0	0	0	0	12
	Out-of-State Gas						
13	Pacific Interstate Companies	0	0	0	0	0	13
14	Other Out-of-State	150	162	170	199	206	14
15	Total Out-of-State Gas	150	162	170	199	206	15
16	Subtotal	150	162	170	199	206	16
	Underground Storage Withdrawal						

Los Angeles Department of Water and Power

ANNUAL GAS SUPPLY AND REQUIREMENTS FORECAST YEARS 1998-2002 MMCF/DAY AVERAGE TEMPERATURE YEAR

LINE			2000	2001	2002	2003	2004	LINE
REQUIREMENTS FORECAST BY END-USE								
1	CORE	Residential	0	0	0	0	0	1
2	CORE/NONCORE	Commercial	0	0	0	0	0	2
3	CORE/NONCORE	Industrial	0	0	0	0	0	3
4		Subtotal	0	0	0	0	0	4
5	NONCORE	Non-EOR Cogeneration	0	0	0	0	0	5
6		EOR Cogen. & Steaming	0	0	0	0	0	6
7		Electric Utilities	150	162	170	199	206	7
8		Subtotal	150	162	170	199	206	8
9	WHOLESALE	Residential	0	0	0	0	0	9
10		Com. & Ind., others	0	0	0	0	0	10
11		Electric Utilities	0	0	0	0	0	11
12		Subtotal WHOLESAL	0	0	0	0	0	12
13		Co. Use & LUAF	0	0	0	0	0	13
14		Subtotal-END USE	150	162	170	199	206	14
15		Storage Injection	0	0	0	0	0	15
16	SYSTEM TOTAL THROUGHPUT		150	162	170	199	206	16
TRANSPORTATION AND EXCHANGE								
17	CORE	All End Uses	0	0	0	0	0	17
18	NONCORE	Commercial/Industrial	0	0	0	0	0	18
19		Non-EOR Cogeneration	0	0	0	0	0	19
20		EOR Cogen. & Steaming	0	0	0	0	0	20
21		Electric Utilities	150	162	170	199	206	21
22		Subtotal-RETAIL	150	162	170	199	206	22
23	WHOLESALE	All End Uses	0	0	0	0	0	23
24	TOTAL TRANSPORTATION & EXCHANGE		150	162	170	199	206	24
CURTAILMENT (RETAIL & WHOLESALE)								
25		Core	0	0	0	0	0	25
26		Noncore	0	0	0	0	0	26
27		TOTAL-Curtailment	0	0	0	0	0	27
28	REFUSAL		0	0	0	0	0	28

NOTE:

Requirements forecast by end-use includes sales, transportation, exchange volumes, and two repowerings that are in the preliminary planning stage.

Los Angeles Department of Water and Power

LOS ANGELES DEPARTMENT OF WATER AND POWER
ANNUAL GAS SUPPLY AND REQUIREMENTS
FORECAST YEARS 2005-2020
MMCF/DAY
AVERAGE TEMPERATURE YEAR

LINE		2005	2006	2010	2015	2020	LINE
GAS SUPPLY AVAILABLE							
1	California Source Gas	0	0	0	0	0	1
	Out-of-State Gas						
2	California Offshore - POPCO/PIOC	0	0	0	0	0	2
3	El Paso Natural Gas Co.	36	36	0	0	0	3
4	Transwestern Pipeline Co.	0	0	0	0	0	4
5	Kern /Mojave	135	135	0	0	0	5
6	PGT/PG&E	0	0	0	0	0	6
7	Other	0	0	0	0	0	7
8	TOTAL Out-of-State Gas	171	171	0	0	0	8
9	Subtotal	171	171	0	0	0	9
10	Underground Storage Withdrawal	0	0	0	0	0	10
11	TOTAL GAS SUPPLY AVAILABLE	171	171	0	0	0	11
GAS SUPPLY TAKEN							
12	California Source Gas	0	0	0	0	0	12
	Out-of-State Gas						
13	Pacific Interstate Companies	0	0	0	0	0	13
14	Other Out-of-State	200	203	225	243	266	14
15	Total Out-of-State Gas	200	203	225	243	266	15
16	Subtotal	200	203	225	243	266	16
17	Underground Storage Withdrawal	0	0	0	0	0	17
18	TOTAL GAS SUPPLY TAKEN	200	203	225	243	266	18

Los Angeles Department of Water and Power

ANNUAL GAS SUPPLY AND REQUIREMENTS FORECAST YEARS 2003-2015 MMCF/DAY AVERAGE TEMPERATURE YEAR

LINE			2005	2006	2010	2015	2020	LINE
REQUIREMENTS FORECAST BY END-USE								
1	CORE	Residential	0	0	0	0	0	1
2	CORE/NONCORE	Commercial	0	0	0	0	0	2
3	CORE/NONCORE	Industrial	0	0	0	0	0	3
4		Subtotal	0	0	0	0	0	4
5	NONCORE	Non-EOR Cogeneration	0	0	0	0	0	5
6		EOR Cogen. & Steaming	0	0	0	0	0	6
7		Electric Utilities	200	203	225	243	266	7
8		Subtotal	200	203	225	243	266	8
9	WHOLESALE	Residential	0	0	0	0	0	9
10		Com. & Ind., others	0	0	0	0	0	10
11		Electric Utilities	0	0	0	0	0	11
12		Subtotal WHOLESale	0	0	0	0	0	12
13		Co. Use & LUAF	0	0	0	0	0	13
14		Subtotal-END USE	200	203	225	243	266	14
15		Storage Injection	0	0	0	0	0	15
16	SYSTEM TOTAL THROUGHPUT		200	203	225	243	266	16
TRANSPORTATION AND EXCHANGE								
17	CORE	All End Uses	0	0	0	0	0	17
18	NONCORE	Commercial/Industrial	0	0	0	0	0	18
19		Non-EOR Cogeneration	0	0	0	0	0	19
20		EOR Cogen. & Steaming	0	0	0	0	0	20
21		Electric Utilities	200	203	225	243	266	21
22		Subtotal-RETAIL	200	203	225	243	266	22
23	WHOLESALE	All End Uses	0	0	0	0	0	23
24	TOTAL TRANSPORTATION & EXCHANGE		200	203	225	243	266	24
CURTAILMENT (RETAIL & WHOLESALE)								
25		Core	0	0	0	0	0	25
26		Noncore	0	0	0	0	0	26
27		TOTAL-Curtailment	0	0	0	0	0	27
28	REFUSAL		0	0	0	0	0	28

NOTE:

Requirements forecast by end-use includes sales, transportation, exchange volumes, and two repowering that are in the preliminary planning stage.

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GLOSSARY

AVERAGE DAY (Operational Definition)

Annual gas sales or requirements assuming average temperature year conditions divided by 365 days.

AVERAGE TEMPERATURE YEAR

Long-term average recorded temperature.

BCF

Billion cubic feet of gas.

BTU (British Thermal Unit)

Unit of measurement equal to the amount of heat energy required to raise the temperature of one pound of water one degree Fahrenheit. This unit is commonly used to measure the quantity of heat available from complete combustion of natural gas.

BYPASS

Most situations in which a customer is directly served by an interstate or intrastate pipeline without utilizing existing local distribution company facilities; however, in some cases direct delivery of gas is not considered bypass, e.g., a portion of California production. See Non-Utility Deliveries.

CALIFORNIA-SOURCE GAS

1. Regular Purchases - All gas received or forecast from California producers, excluding exchange volumes. Also referred to as Local Deliveries.
2. Received for Exchange/Transport - All gas received or forecast from California producers for exchange, payback, or transport.

CNG (Compressed Natural Gas)

Fuel for natural gas vehicles, typically natural gas compressed to 3000 pounds per square inch.

COGENERATION

Simultaneous production of electricity and thermal energy from the same fuel source. Also used to designate a separate class of gas customers.

COLD TEMPERATURE YEAR

Cold design-temperature conditions, based on long-term recorded weather data.

COMMERCIAL (SoCalGas & SDG&E)

Category of gas customers whose establishments consist of services, manufacturing nondurable goods, dwellings not classified as residential, and farming (agriculture).

COMMERCIAL (PG&E)

Non-residential gas customers not engaged in electric generation, enhanced oil recovery, or gas resale activities with usage less than 20,800 therms per month.

COMPANY USE

Gas used by utilities for operational purposes, such as fuel for line compression and injection into storage.

CORE AGGREGATOR

Individuals or entities arranging natural gas commodity procurement activities on behalf of core customers. Also, sometimes known as an Energy Service Provider (ESP), a Core Transport Agent (CTA), or a Retail Service Provider (RSP).

CORE CUSTOMERS (SoCalGas & SDG&E)

All residential customers; all commercial and industrial customers with average usage less than 20,800 therms per month who typically cannot fuel switch. Also, those commercial and industrial customers (whose average usage is more than 20,800 therms per year) who elect to remain a core customer receiving bundled gas service from the LDC.

CORE CUSTOMERS (PG&E)

All customers with average usage less than 20,800 therms per month.

CORE SUBSCRIPTION

Noncore customers who elect to use the LDC as a procurement agent to meet their commodity gas requirements.

CPUC

California Public Utilities Commission.

CUBIC FOOT OF GAS

Volume of natural gas which, at a temperature of 60 °F and an absolute pressure of 14.73 pounds per square inch, occupies one cubic foot.

CURTAILMENT

Temporary suspension, partial or complete, of gas deliveries to a customer or customers.

EG

Electric generation (including cogeneration) by a utility, customer, or independent power producer.

ENERGY SERVICE PROVIDER (ESP)

Individuals or entities engaged in providing retail energy services on behalf of customers. ESPs may provide commodity procurement, but could also provide other services, e.g., metering and billing.

ENHANCED OIL RECOVERY (EOR)

Injection of steam into oil-holding geologic zones to increase ability to extract oil by lowering its viscosity. Also used to designate a special category of gas customers.

EXCHANGE

Delivery of gas by one party to another and the delivery of an equivalent quantity by the second party to the first. Such transactions usually involve different points of delivery and may or may not be concurrent.

EXEMPT WHOLESALE GENERATORS (EWG)

A category of customers consuming gas for the purpose of generating electric power.

FERC

Federal Energy Regulatory Commission.

GAS ACCORD

The Gas Accord is a multi-party settlement agreement which restructured PG&E's gas transportation and storage services. The settlement was filed with the CPUC in August 1996, approved by the CPUC in August 1997 (D.97-08-055) and implemented by PG&E in March 1998. Most of the provisions of the Gas Accord have a term ending December 31, 2002.

Key features of the Gas Accord include the following: unbundling of PG&E's gas transmission service and a portion of its storage service; placing PG&E at risk for transmission and storage costs and revenues; establishing firm, tradable transmission and storage rights; establishing known transmission and storage rates for the term of the Gas Accord; reducing PG&E's role in core gas procurement; and resolving outstanding gas reasonableness and other gas regulatory matters.

GAS SENDOUT

That portion of the available gas supply that is delivered to gas customers for consumption, plus shrinkage.

HEATING DEGREE DAY(S)

A measure of how much below a standard reference temperature (SoCalGas and SDG&E: 65 °F; PG&E: 60 °F) actual temperatures have been. A basis for computing how much electricity and gas are needed for space heating purposes.

HOT TEMPERATURE YEAR

Hot design-temperature conditions, based on long-term recorded weather data.

INDUSTRIAL (SoCalGas & SDG&E)

Category of gas customers who are engaged in mining and in manufacturing durable goods.

INDUSTRIAL (PG&E)

Non-residential customers not engaged in electric generation, enhanced oil recovery, or gas resale activities using more than 20,800 therms per month.

LDC

Local electric and/or natural gas distribution company.

LNG (Liquefied Natural Gas)

Natural gas in its liquid state.

MMBTU

Million British Thermal Units.

MMCF

Million cubic feet of gas.

MMCF/DAY

Million cubic feet of gas per day.

NGV (Natural Gas Vehicle)

Vehicle that uses CNG or LNG as its source of fuel for its internal combustion engine.

NONCORE CUSTOMERS

Commercial and industrial customers whose average usage exceeds 20,800 therms per month, including qualifying cogeneration and solar electric projects. Noncore customers assume gas procurement responsibilities and receive gas transportation service from the utility under firm or interruptible intrastate transmission arrangements.

NON-UTILITY DELIVERIES

The volume of gas delivered directly to customers by an interstate or intrastate pipeline or other independent source instead of the local distribution company.

OFF-SYSTEM SALES

Gas sales to customers outside the utility's service area.

OUT-OF-STATE GAS

Gas from sources outside the state of California.

PRIORITY OF SERVICE (SoCalGas & SDG&E)

In the event of a curtailment situation, utilities curtail gas usage to customers based on the following end-use priorities:

CORE SERVICE

Priority 1 – All residential customers, and commercial and industrial customers whose average usage is less than 20,800 therms per month.

Priority 2A – All commercial and industrial customers whose average usage is more than 20,800 therms per month and who elect to remain a core customer.

NONCORE SERVICE

Firm Service – All noncore customers served through firm intrastate transmission service, including core subscription service.

Interruptible – All noncore customers served through interruptible intrastate transmission service, including inter-utility deliveries.

PRIORITY OF SERVICE (PG&E)

In the event of a curtailment situation, PG&E curtails gas usage to customers based on the following end-use priorities:

Core Residential

Non-residential Core

Noncore using firm backbone service (including UEG)

Noncore using as-available backbone service (including UEG)

Market Center Services

PSIA

Pounds per square inch absolute. Equal to gauge pressure plus local atmospheric pressure.

PURCHASES FROM OTHER UTILITIES

Gas purchased from other utilities in California.

REQUIREMENTS

Total potential demand for gas, including that served by transportation, assuming the availability of unlimited supplies at reasonable cost.

RESALE

Gas customers who are either another utility or a municipal entity who, in turn, resells gas to end-use customers.

RESIDENTIAL

A category of gas customers whose dwellings are single-family units, multi-family units, mobile homes or other similar living facilities.

SHORT-TERM SUPPLIES

Gas purchases usually involving 30-day, short-term contract or spot gas supplies.

SPOT PURCHASES

Short-term purchases of gas typically not under contract and generally categorized as surplus or best efforts.

STORAGE BANKING

The direct use of local distribution company gas storage facilities by customers or other entities to store self-procured commodity gas supplies.

STORAGE INJECTION

Volume of natural gas injected into underground storage facilities.

STORAGE WITHDRAWAL

Volume of natural gas taken from underground storage facilities.

SUPPLEMENTAL SUPPLIES

A utility's best estimate for additional gas supplies that may be realized, from unspecified sources, during the forecast period.

SYSTEM CAPACITY or NORMAL SYSTEM CAPACITY

(Operational Definition)

The physical limitation of the system (pipelines and storage) to deliver or flow gas to end-users.

SYSTEM UTILIZATION or NOMINAL SYSTEM CAPACITY

(Operational Definition)

The use of system capacity or nominal system capacity at less than 100 percent utilization.

TAKE-OR-PAY

A term used to describe a contract agreement to pay for a product (natural gas) whether or not the product is delivered.

TARIFF

All rate schedules, sample forms, rentals, charges, and rules approved by regulatory agencies for used by the utility.

Tcf

Trillion cubic feet of gas.

THERM

A unit of energy measurement, nominally 100,000 BTUs.

TOTAL GAS SUPPLY AVAILABLE

Total quantity of gas estimated to be available to meet gas requirements.

TOTAL GAS SUPPLY TAKEN

Total quantity of gas taken from all sources to meet gas requirements.

TOTAL THROUGHPUT

Total gas volumes passing through the system including sales, company use, storage, transportation, and exchange.

TRANSPORTATION GAS

Non-utility-owned gas transported for another party under contractual agreement.

UEG

Utility electric generation.

UNACCOUNTED FOR

Gas received into the system but unaccounted for due to measurement, temperature, pressure, or accounting discrepancies.

UNBUNDLING

The separation of natural gas utility services into its separate service components such as gas procurement, transportation, and storage with distinct rates for each service.

WACOG

Weighted average cost of gas.

WHOLESALE

A category of customer, either a utility or municipal entity, that resells gas.

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RESPONDENTS

RESPONDENTS

The following utilities have been designated by the California Public Utilities Commission as respondents in the preparation of the California Gas Report:

- **Pacific Gas and Electric Company**
- **San Diego Gas & Electric Company**
- **Southern California Gas Company**

The following utilities, in addition to Wild Goose Storage Inc., cooperated in the preparation of the report:

- **City of Long Beach Gas and Electric**
- **City of Los Angeles Department of Water and Power**
- **Sacramento Municipal Utilities District**
- **Southwest Gas Corporation**

Two statewide committees have been formed by the respondents and cooperating utilities to prepare this report. The following individuals served on these committees this year:

GENERAL COMMITTEE

Mike Katz	Pacific Gas and Electric Company
Thomas J. Armstrong	Southwest Gas Corporation
Frederick E. John	Sempra Energy*
William L. Reed	Sempra Energy*

*Sempra Energy represents: Southern California Gas Company and San Diego Gas & Electric Company.

WORKING COMMITTEE

Kathleen Cordova (Chairperson)	Sempra Energy *
Mary Duffy	Sempra Energy *
Rob Davis	Sempra Energy*
Ginger Shugart	City of Long Beach Gas and Electric
Gino Beltran	Los Angeles Dept. of Water and Power
Carl Funke	San Diego Gas & Electric Company
Edward Giesecking	Southwest Gas Corporation
Don Petersen	Pacific Gas and Electric Company
Jim Mikowicz	Pacific Gas and Electric Company
John Korta	Pacific Gas and Electric Company
Richard Hendrix	Pacific Gas and Electric Company
Lindzi Mapplebeckpalmer	Pacific Gas and Electric Company
Barry Brunelle	Sacramento Municipal Utilities District

OBSERVERS

R. Mark Pocta	California Public Utilities Commission, Office of Ratepayer Advocates
Todd Peterson	California Energy Commission
William Wood	California Energy Commission

*Sempra Energy represents: Southern California Gas Company and San Diego Gas & Electric Company.

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