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Transparency

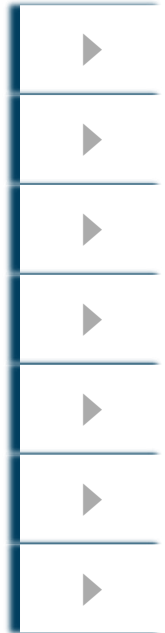
Utilities & Industries

Licensing

Proceedings

Complaints

Public Advocates Office



[Home](#) | [Energy](#) | Natural Gas and California

# Natural Gas and California

## Overview

The California Public Utilities Commission (Commission or CPUC) regulates natural gas utility rates and services provided by Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCalGas), San Diego Gas & Electric Company (SDG&E), Southwest Gas and several smaller natural gas utilities. The natural gas services which the CPUC regulates include in-state transportation of natural gas over the utilities' extensive transmission and distribution pipeline systems, gas storage, procurement, metering and billing. The Commission also regulates independent gas storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage.

In addition, the Commission has responsibility for safety oversight over the state natural gas utilities. Discussion of the Commission's gas utility safety regulation responsibilities can be found elsewhere on the CPUC website, e.g. at: <https://www.cpuc.ca.gov/General.aspx?id=6762>

### Customers and Volumes

California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800,000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.

The overwhelming majority of natural gas utility customers in California are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e. they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

A resource for recorded and forecasted gas volumes consumed in California is the California Gas Report. This report is issued every year by the major California gas utilities. It can be found on the SoCalGas and PG&E web sites. Forecasted volumes are developed only in even-numbered years. See the following link:

<https://www.socalgas.com/regulatory/cgr.shtml>

## Supplies

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38% of their natural gas supply from basins located in the U.S. Southwest, 27% from Canada, 27% from the U.S. Rocky Mountain area, and 8% from production located in California.

The state does not receive liquefied natural gas (LNG) supplies. Biogas (e.g. from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the State has been encouraging its development.

California's regulated utilities do not own any natural gas production facilities, and the Commission does not regulate California gas producers. All the natural gas sold by the utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces". However, the CPUC decides whether the California utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers.

## Delivery of Supplies

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El

Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

## Storage

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements<sup>ii</sup>.

## Service Options

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

## Operations

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California.

## Natural Gas Utility Rates

The Commission authorizes reasonable natural gas utility services and costs, and rates that allow the recovery of those costs. It does so mainly through decisions issued after hearing evidence in several types of formal proceedings, and through its disposition of the requests made in "advice letters" submitted by the utilities. (The Commission has delegated authority to the Energy Division to determine the disposition of most energy utility advice letters, which are usually non-controversial.) New utility rates may not be charged until they made effective by the Commission for the utility's public tariffs. The tariff for each of the major gas utilities in California can be found on the utility's web site.

Core gas customers (e.g. residential and small commercial customers) typically see on their utility gas bill three major rates or charges approved by the Commission: 1) the procurement rate if the customer is taking procurement service from the utility, 2) the transportation rate and possibly a fixed monthly charge, and 3) the gas public purpose program (PPP) surcharge rate.

Noncore customers typically see on their utility gas bill: 1) a fixed monthly access or reservation charge, 2) transportation rates, and 3) the gas PPP surcharge (but electric generators are exempt from the gas PPP surcharge, pursuant to Article 10 of the Public Utilities Code). If a noncore customer takes backbone transmission service or storage service from the utility it would also pay for those services.

Low income customers may qualify for a 20% discount off their gas bill, under the California Alternate Rates for Energy (CARE) Program. Other customers, who don't qualify for the CARE discount, pay for this subsidy as part of the gas PPP surcharge.

The CPUC issues an annual report to the Governor and California Legislature that provides a breakdown of the CPUC-authorized costs that are included in the rates of the four largest energy utilities in the state, including the three largest gas utilities, SoCalGas, PG&E, and SDG&E. This report, called "California Electric and Gas Utility Annual Cost Report", can be found on the CPUC web site, at the following link:

<https://www.cpuc.ca.gov/General.aspx?id=6442460031>

## Core Procurement Rates

The utility core gas procurement rate recovers the costs of purchasing natural gas supplies, transporting those supplies to California, and transporting those supplies to the utility local transmission system. As noted above, the price of the natural gas commodity is not regulated by either the FERC or the CPUC. (In PG&E's case, the procurement rate also recovers the costs of gas storage for core customers, but in SoCalGas' case, the cost of core storage is recovered in its transportation rate.)

As the price of natural gas is difficult to forecast and goes up and down in response to market forces, the procurement rate is changed every month by the major utilities based on the utility's estimate of the cost of supplies and core procurement demand for the upcoming month. If the utility's estimate of core procurement revenues is higher than actual costs, customers will get a refund in later months, and if the utility's estimate is too low, customers will pay more in later months.

Shortly before the beginning of a month, the major utilities file a monthly advice letter with the Commission to submit its procurement rate. The Commission's Energy Division reviews those advice letters and has been delegated the authority to approve them. The new core procurement rate typically goes into effect for the major gas utilities on the first day of the month.

The CPUC tries to ensure that the major gas utilities have done a reasonable job procuring supplies for customers through the establishment of "gas cost incentive mechanisms". In a nutshell, these mechanisms basically provide a financial incentive to the utility to procure supplies at prices that are close to or lower than average market prices. On the other hand, if the utility procures supplies at prices that are higher than average market prices, it could face a penalty, which would be refunded to customers.

If a core customer takes procurement service from a CTA, the customer would pay procurement charges to the CTA, rather than the utility. While the actual charges paid to a CTA may appear on a core customer's utility bill, the CPUC does not approve or authorize those specific amounts.

## Gas Transportation Rates

In a General Rate Case (GRC) Proceeding, the CPUC reviews a forecast of utility operational spending for a specific, future calendar year, called a "test year". For the natural gas utilities, a GRC addresses operational costs and expenses, not including core procurement costs and not including costs related to public purpose programs, like CARE, energy efficiency and public interest R&D. For the last 20 years, the CPUC has addressed PG&E's backbone and local transmission and storage costs and rates in a separate proceeding from a General Rate Case, called the PG&E Gas Transmission and Storage (GT&S) proceeding. But beginning with PG&E's 2023 GRC, those costs will be included in the GRC.

In its decision in a GRC or GT&S proceeding, the CPUC adopts a "revenue requirement" for the gas utility, which is the amount of money needed to reasonably and safely operate its gas system, pay taxes, and earn a fair return to pay its shareholders and debt. That revenue requirement is based on the CPUC's determination of reasonable operating expenses and capital asset costs during the test year.

The authorized revenue requirement is allocated to the utilities' customer classes<sup>iii</sup>, and gas "transportation rates" are fashioned for each customer class that will allow the recovery of those allocated amounts. For SoCalGas, SDG&E and PG&E gas distribution, the Commission determines this cost allocation and rate design in a proceeding which is separate from the GRC, called a Cost Allocation Proceeding. The CPUC bases the rates for each customer class both on the revenue requirement allocation and on its determination of a forecast of gas deliveries to that customer class. If actual gas revenues turn out to be higher or lower than the authorized revenue requirement, then rates are adjusted in subsequent years to make up the difference to ensure that the utility only recovers the authorized revenue requirement from its customers.

All gas utility residential customers have transportation rates that have a "baseline" and "above baseline" component. That is, for various geographic regions within a gas utility's service territory, a baseline usage amount is set for residential customers, at some percentage (less than 100%) of average for that region for the season of the year. For usage up to the baseline amount, a rate is set which is substantially lower than the "above baseline" rate. The CPUC is required to establish such a rate structure for residential customers pursuant to Public Utilities Code Section 739.

In addition to the transportation rates, some core gas customers may see on their bill a fixed monthly charge. This charge allows some of the recovery of certain types of standard fixed costs for the utility, such as service lines and meters. But even if a utility bill does not state a fixed monthly charge, it still recovers the same types of costs in its volumetric rates.

For calendar years between GRC test years, the Commission also typically adopts an "attrition methodology" that adjusts the adopted revenue requirement for estimated cost increases after the test year.

### **Gas Public Purpose Program Surcharge**

The gas public purpose program (PPP) surcharge recovers the costs of various gas utility programs authorized by the Commission: energy efficiency, energy savings assistance, the CARE discount, and the gas public purpose research and development program administered by the California Energy Commission.

Based on cost allocation methodologies authorized by the Commission, gas PPP surcharge rates are developed for non-exempt gas customer classes, and those rates are authorized by advice letter for each calendar year. The surcharge rates go into effect on January 1 and typically remain the same for the calendar year.

## California Climate Credit

Natural gas residential customers of the major natural gas utilities in California receive an annual California Climate Credit on their gas bill. The credit is from a state program that requires power plants, natural gas distributors, and other large industries that emit greenhouse gases to buy carbon pollution permits. The credit represents residential utility ratepayers' share of the payments from the State's program.

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<sup>i</sup> The smaller gas utilities are: West Coast Gas, Alpine Natural Gas, and Southern California Edison - Catalina Island.

<sup>ii</sup> Much of the operational capacity of one of SoCalGas' largest fields, Alison Canyon, has been reduced pursuant to orders by the Commission and the Geologic Energy Management Division (formerly the Division of Oil, Gas and Geothermal Resources) of the Department of Conservation following a release of gas from that field in late 2015 and early 2016. As of February 2020, the future situation surrounding the use of the Aliso Canyon is unresolved. Additional information regarding the Aliso Canyon incident and the use of Aliso Canyon can be found elsewhere on the CPUC web site. See the following link: <https://www.cpuc.ca.gov/aliso/>

<sup>iii</sup> For example, core customer classes might be: residential, small commercial, and natural gas vehicle. Noncore customer classes might be: industrial, electric generation, and wholesale.



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[Back to Top](#)

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