

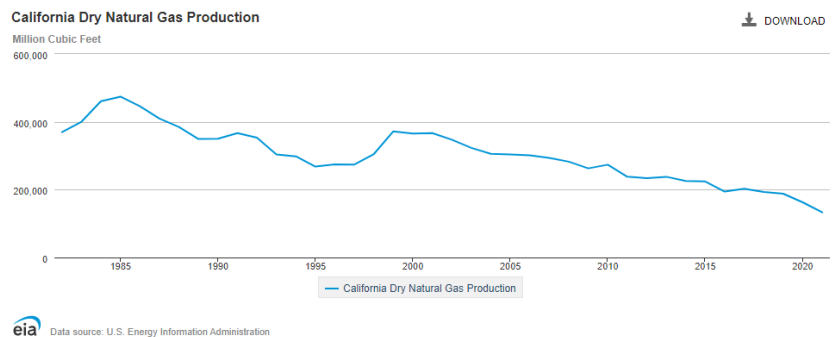
# BACKGROUND ON NATURAL GAS PRICES (WINTER 2022-23)

## BACKGROUND

- Investor owned utilities (IOUs) are responsible for most of the natural gas service in California. Pacific Gas & Electric (PG&E), the Southern California Gas Company (SoCalGas), and San Diego Gas & Electric dominate the market (the latter two being owned by parent company Sempra). The rest of the gas market is comprised of smaller IOUs, some publicly owned utilities, and private, non-utility [“core transport agents.”](#)
- Roughly [70% of California households](#) rely on gas for heating.
- The Public Utilities Commission (PUC) [regulates natural gas IOUs](#), including their rates. IOU gas rates for most residential and small business customers are comprised of three main components:
  - Procurement** – Commodity price for gas, which is adjusted every month (and reviewed by PUC staff). It is unregulated, meaning “market forces” determine it, and it is passed through to customers directly (i.e., utilities do not profit from this component). The PUC does provide IOUs an additional incentive if they procure gas at or below the average market price (and may penalize them if they do not).
  - Transportation** – Gas, distribution, and storage costs, approved by the PUC in multiyear General Rate Cases. Capital expenses are subject to a “rate of return” (i.e., profit).
  - Public Purpose Programs** – Funding for low-income discounts and other subsidy programs.
- For PG&E in 2021, the three components made up 18%, 77%, and 5% of costs, respectively.
- In winter 2022-23, gas procurement prices rose dramatically for a variety of reasons (as discussed below), resulting in skyrocketing customer bills. For example, SoCalGas reported a 300% year-over-year increase in wholesale natural gas prices in December 2022, which caused a 142% average bill increase.

## MAIN CAUSES OF HIGH NATURAL GAS PRICES

- Diminished production and storage.** [From 1985 to 2021](#), in-state natural gas production dropped almost 72%. Given the state’s dependence on gas imports, this makes it hard to overcome shortages.
- Pipeline outages.** California [imports over 90%](#) of its natural gas, making it vulnerable to interruptions. This winter, fewer imports from Canada and a West Texas pipeline outage reduced flows into the state.
- Supply constraints.** The Russian invasion of Ukraine has disrupted the global gas market and led the United States to export more natural gas, which diminishes the supply available domestically.
- Limited storage volume.** As of early January 2023, marketable gas in storage in the Pacific region was [roughly 30% below](#) the five-year average. Southern California is particularly affected by the [storage restrictions](#) at the Aliso Canyon facility that the PUC imposed after its 2015 leak.
- Colder, wetter winter.** Extended periods of [cold weather and precipitation](#) in the West boosted demand for natural gas heating, driving up prices in combination with constrained supplies.



## FUTURE OUTLOOK

- On February 2, 2023, the PUC approved an [expedited measure](#) directing electric and gas IOUs to deliver customers their semiannual [“climate credit”](#) as soon as possible, in response to high bills. However, some IOUs may not be able to disperse the credit until March, limiting the measure’s effectiveness.
- Natural gas prices are already declining toward historical levels; SoCalGas [reports](#) a 68% drop in the customer price from January to February 2023. However, that price is still somewhat above average.
- Though this (hopefully) brief crisis in gas bills was due to factors (mostly) outside the state’s control, it may be a preview of what is to come for all Californians in a “decarbonized” future.

- SB 100 (2018) requires retail energy to be zero-carbon by the end of 2045. Various cities have banned certain gas appliances in new buildings, and future statewide building codes [may do the same](#).
- The PUC recently [began to scrutinize](#) IOUs' proposed major investments in natural gas infrastructure.
- These policies will discourage investment in the state's gas system and in delivery of gas to customers; it is not hard to envision how that could lead to shortages that will repeat this episode of sharp bill increases. Unless California reverses course or manages to shift existing gas users to electric appliances, this challenge looms over Californians' future.

## LEGISLATIVE OPTIONS

- **Climate credit timing.** In order to optimize the timing of climate credits, the Legislature may wish to direct PUC to schedule future climate credits for the two highest cost months every year (perhaps January and July), rather than the current schedule of April and October.
  - **Promote hydrogen gas production.** One way to preserve the gas system while still curbing emissions is to promote hydrogen production and infrastructure. "Blue" hydrogen (which comes from natural gas and is paired with carbon capture) and "green" hydrogen (which is completely carbon-free) both may be considered clean gas options that can displace natural gas. However, they are expensive to produce and have some technological limits. More state investment would help increase their use, but it should not come through subsidies paid by ratepayers because that would make bills more unaffordable.
  - **Pause state mandates.** If the transition to electrification continues to be difficult, especially for those who cannot afford to switch from natural gas, the state should consider suspending any costly mandates. One option is to ban local governments from requiring replacement of *existing* gas appliances (such a ban has not been proposed so far). Another possibility would be to require the PUC and/or California Energy Commission to calculate the average upfront cost of the SB 100 transition for every household, and to suspend the 2045 zero-carbon policy until the state covers all (or a significant portion) of that cost. Unfortunately, the SB 100 policy is unlikely to be altered short of a catastrophe, but this option may help highlight its looming cost to gas customers.
  - **Increase natural gas production.** The least viable, but most effective, response would be to increase natural production in California. There are [vast, untapped resources](#) for oil and natural gas, but state and local regulations are making it more difficult to conduct new drilling. This leaves numerous jobs, and the state's gas system, at risk.
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