

Hydrogen Blending

SoCalGas Hydrogen Blending Frequently Asked Questions



What is Hydrogen Blending?

It is the process of blending hydrogen into natural gas and injecting it into the natural gas infrastructure.

How Does Hydrogen Blending Fit into California's Clean Energy Goals?



California has identified clean renewable hydrogen as an important component in its ambitious climate goals, with Governor Gavin Newsom calling it “an essential aspect of how we’ll power our future and cut pollution.”

In 2022, the California Public Utilities Commission (CPUC) sponsored the University of California Riverside’s 2022 Hydrogen Blending Impacts Study, which it said identified blending as “an important decarbonization strategy for the energy and transportation sectors” and directed the state’s gas utilities to propose these projects as “thoughtful and prudent next steps before establishing a system wide injection standard.”



Blending hydrogen into the natural gas system specifically has been identified in the California Air Resources Board’s (CARB) 2022 Scoping Plan for Achieving Carbon Neutrality as a tool that can help “reduce demand for fossil energy and GHGs, and improve air quality.”

In February, the California Energy Commission (CEC) released its 2023 Integrated Energy Policy Report, which concluded that California should support efforts to assess hydrogen storage and delivery approaches, including blending hydrogen into existing gas infrastructure, to help address the state’s climate challenges.



Benefits of Hydrogen Blending

Hydrogen blending has the potential to expedite the transition to a carbon-free energy future by:



Leveraging the state’s current infrastructure, skilled workforce and regulatory framework to deliver cleaner fuel to customers



Reducing greenhouse gas emissions on both the electric and gas grids



Allowing Californians to continue using existing appliances without modifications



Serving as a low-cost hydrogen storage and transportation medium



Providing system resiliency through energy diversity and redundancy

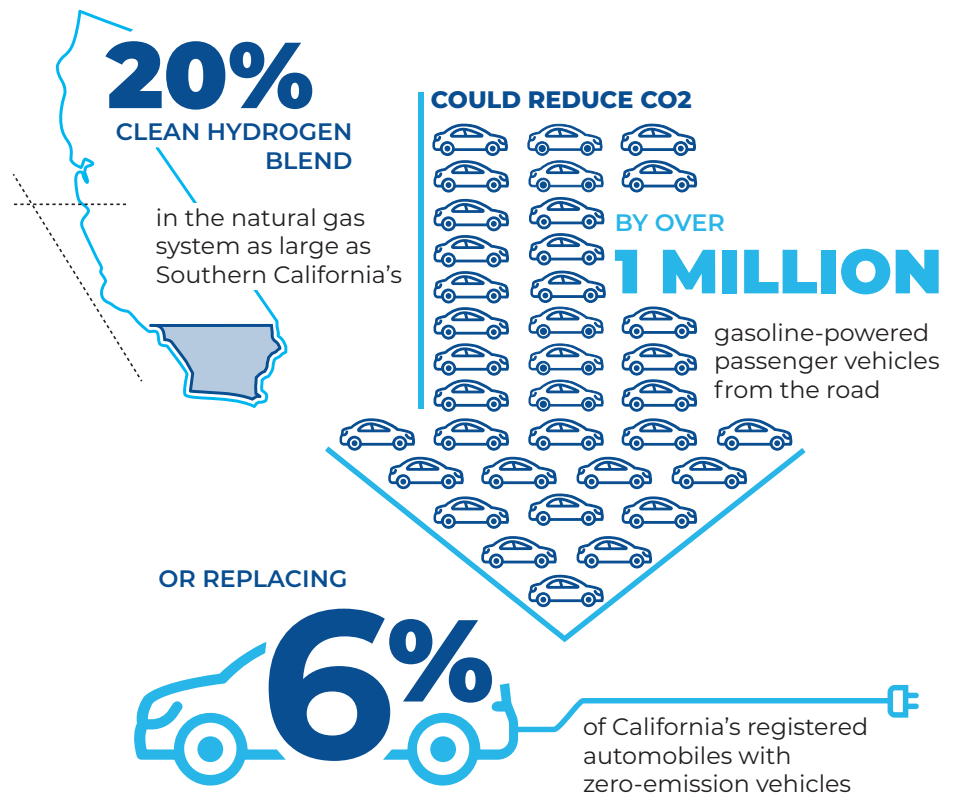
Is Hydrogen Blending Safe?

Hydrogen blending has been safely and reliably used around the world for decades.


Hawaii gas has blended hydrogen into its system for half a century. More than 1,100 miles of pipeline distribute up to a 15% hydrogen blend into Hawaii's homes, restaurants, and businesses.

In Canada, ATCO has blended 5% hydrogen into the Fort Saskatchewan gas distribution system since 2022, serving 2,100 customers, and plans to increase the blend to 20% hydrogen.

The United Kingdom, Denmark, Germany, France, and Italy all have hydrogen blending projects.




Up to **20%**
underway in Europe



Up to **15%**
in Hawaii

Up to **5%**
underway in continental United States



5%
underway in Canada



Up to **10%**
underway in Australia



What is the Purpose of Hydrogen Blending Demonstrations?

The projects will demonstrate that blending clean renewable hydrogen into the natural gas system is a safe and effective way to reduce greenhouse gas emissions and begin to scale up hydrogen as laid out in California's climate plan.

Why is SoCalGas Undertaking Hydrogen Blending Demonstrations?

The CPUC directed SoCalGas to pursue hydrogen blending to help advance California's clean energy goals.

At the direction of the CPUC, SoCalGas, San Diego Gas & Electric, Pacific Gas and Electric Company, and Southwest Gas have proposed demonstrations to learn more about the effectiveness of blending, the potential reduction of greenhouse gas emissions, and how blends perform.