At SoCalGas we live by three values: do the right thing, champion people, and shape the future. These values permeate our company. They guide how we think and drive our actions. As one of America’s largest energy providers, our values are the lens through which we see every opportunity and challenge. From energizing the lives of 22 million Californians, to contributing to the competitiveness of the world’s fifth largest economy, our values are the foundation of all we do.

Our mission is to build the cleanest, safest, most innovative energy company in America. With our values providing a strong foundation, our mission statement presents an actionable framework of purpose and intent. At SoCalGas, we’re dedicated to leading the transition to a decarbonized energy system. Through collaboration and partnership, California can develop clean energy solutions at scale and serve as a global beacon for energy innovation.

Driven by our values and mission, SoCalGas is excited to embark on ASPIRE 2045, a sustainability strategy that includes a bold commitment to achieve net zero greenhouse gas emissions in our operations and delivery of energy by 2045. ASPIRE 2045 is a natural extension to our decades-long industry leadership. We were the first gas utility in America to install smart meters and pioneered renewable natural gas. We are leading in hydrogen innovations and outperforming mandated emissions reduction targets.

While impossible to predict what the energy ecosystem will look like more than two decades from now, we know it must be clean, safe, reliable, and resilient. Californians will need an increasingly integrated and decarbonized portfolio of energy sources and tools that are affordable, scalable, and can meet critical peak periods of energy demand. Our success, economic competitiveness, and quality of life depend on it.
Innovation and the rapid development of new technologies will be vital to our success. Three SoCalGas capabilities are integral to achieving California’s energy transition and net zero goals.

1. Decarbonization: Reducing carbon intensity across all economic sectors is foundational to achieving net zero. It requires energy efficiency, renewable electricity, renewable gases, long duration storage, carbon management, and other technologies to be viable at scale.

2. Diversification: Developing a diversified portfolio of clean energy sources, distributed networks, tools, and applications is the only way to achieve society’s clean energy goals. Diversification also serves as a necessary risk management tool, delivering resiliency to the system and protecting against the uncertainties of the future.

3. Digitalization: Deploying advanced technologies and analytics to improve planning, safety, resiliency, and the integration of real-time information to benefit participants across the energy value chain.

We believe we can shape the future. SoCalGas’ role in the world is greater than the molecules we deliver. A successful energy transition requires leadership, innovation, effective policy, and broad collaboration.

We are excited to share our net zero climate commitment, which is just one element of our environmental, social, and governance initiatives. Throughout 2021, we will share additional plans and commitments, including: advancing our industry-leading diversity, equity, and inclusion programs for employees; increasing economic opportunities for diverse suppliers; and engaging in the communities we are privileged to serve.

On behalf of the amazing women and men of SoCalGas, we look forward – with great enthusiasm – to working with you to achieve ASPIRE 2045.
What's Inside

SUSTAINABILITY AT SOCALGAS
CLIMATE COMMITMENT TO NET ZERO
LEADERSHIP IN THE ENERGY TRANSITION
OUR PROGRESS TO NET ZERO
WHAT'S TO COME
SoCalGas completed an enterprise-wide effort with Sempra Energy to align our strategic focus and sustainability strategy on four pillars. These pillars help us identify and manage key environmental, social, and governance initiatives, set bold goals in each area, and focus our communications to provide progress updates to stakeholders.

Sustainable business practices drive resilient operations and create long-term value for our stakeholders.
We put our employees and the communities we serve first. Our employees are our most valuable resource. We place the highest priority on their wellness, safety, and empowerment.

We invest in our communities through purposeful charitable giving, partnerships, and volunteerism.

We will continue to cultivate our workplace and communities to promote an inclusive and respectful environment that thrives on diversity.

Infrastructure is our business. SoCalGas operates over 100,000 miles of transmission and distribution pipelines and storage assets, and over six million customer meters across 500+ communities.

Our resilient underground pipeline infrastructure prevents, withstands, adapts to, and quickly recovers from disruption, to enhance and complement an energy ecosystem made of clean electrons and clean molecules.

The intersection of clean energy technologies, sound policy, and capital investments, will accelerate the affordable energy transition.

The energy transition requires expanding on proven and new technologies in energy efficiency, renewable natural gas, renewable electricity, fuel cells, hydrogen, and carbon management.

We commit to investing in a diverse portfolio of technologies and applications to decarbonize.

As the nation’s largest gas distribution utility, with over 7,800 employees serving 22 million customers, safety is foundational to our business.

SoCalGas’ Safety Management System (SMS) framework embeds safety in everything we do. SMS enhances our safe operations, strengthens our safety culture, and improves our overall safety performance within our workplace and communities.
Our climate commitment is to achieve net zero greenhouse gas emissions in our operations and delivery of energy by 2045.
Climate change, and society’s response to it, will profoundly affect the way energy is produced, delivered, and consumed over the coming decades. The changing climate requires an energy ecosystem that is resilient to extreme weather, wildfires, and drought, while delivering reliable, affordable, and increasingly low carbon energy to customers.

Our climate commitment is to achieve net zero greenhouse gas emissions in our operations and delivery of energy by 2045. In doing so, SoCalGas becomes the largest gas distribution utility in the nation to include scopes 1, 2, and 3 emissions.

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This is an opportunity to decarbonize the gas and electric networks, while playing a broader role in decarbonizing other sectors such as agriculture, waste, and transportation. It is an even bigger opportunity to keep California at the forefront of innovation and economic development by creating a model where local solutions are globally scalable and have a far-reaching impact.

With these great opportunities, come great challenges. As we look towards a clean energy future, we are managing not only the energy needs of today, but of the next quarter century, when California’s power requirements are expected to nearly double. This growing challenge will demand an even stronger integrated energy system that is clean, reliable, resilient, and affordable for its residents.

With our parent company, Sempra Energy, we are uniquely positioned to unite innovation in energy technology and infrastructure with the growing demand for lower-carbon energy.
Building on our efforts to date, we have started to chart our goals to further our path towards net zero.7

**Propelling Towards the Future**

**BY 2025 WE PLAN TO**

- Achieve net zero energy for 100% of SoCalGas’ newly constructed buildings and major renovations of buildings over 10,000 square feet.8
- Replace 50% of SoCalGas’ over-the-road fleet with electric, hybrid, renewable gas, and fuel cell electric vehicles.9
- Complete five hydrogen pilot projects.
- Establish statewide hydrogen blending standards.
- Exceed the state requirements to demonstrate a reduction of fugitive methane emissions 20% by 2025.10
- Reduce methane emissions intensity of our distribution system to 0.22% or less of total gas delivered, contributing to the collective goal of ONE Future members.11
- Deliver 5% renewable natural gas (by 2022).12
- Increase procurement of responsibly sourced gas.13

**BY 2030 WE PLAN TO**

- Eliminate 100% of vented gas during planned transmission pipeline work (excluding emergency repairs).
- Achieve net zero energy for 50% of all SoCalGas existing buildings.14
- Develop hydrogen infrastructure solutions for the 2028 Olympics.
- Exceed California’s goal to reduce fugitive methane emissions 40% by 2030.15
- Deliver 20% renewable natural gas.16
- Establish a hydrogen industrial cluster with industry partners.

**BY 2035 WE PLAN TO**

- Operate a 100% zero emission over-the-road fleet.17
- Achieve net zero energy for 100% of SoCalGas buildings.18

We will add additional goals and be transparent about our progress.
LEADERSHIP IN THE
ENERGY TRANSITION
SoCalGas will accelerate the shift to cleaner fuels, complementing wind and solar energy, and add clean fuels, such as hydrogen, to the energy mix. Over the next five years, we plan to invest more than $2 billion to modernize our infrastructure to decarbonize, diversify, and digitalize our business.

Specifically, we will concentrate on three key areas:

1. Leveraging our gas infrastructure to provide the energy ecosystem with flexibility, storage, reliability and resiliency.
2. Investing in innovative technologies to create a portfolio of decarbonization solutions for an evolving energy transition.
3. Advancing through collaboration to engage, inspire, and empower partners on local, state, and global climate goals.
Leveraging the Gas Infrastructure

For decades, our infrastructure has been the backbone of affordable and reliable energy in California. The gas system provides flexible fuel delivery, long-term storage, and reliable and resilient energy for customers.

**FLEXIBILITY**

The flexibility of the gas system complements decarbonization of the electric grid and accelerates the growth of renewable energy procurement. Wind and solar are powerful primary sources of renewable energy but their variability can result in over- or under-supply of energy.

By contrast, gas supply is readily available. It provides continuous service and transport capacity, safeguarding against interruption of service to customers. These inherent characteristics also hold true for low to negative carbon forms of gas supply, such as hydrogen and renewable natural gas.

**STORAGE**

While there has been great progress with battery storage, it is insufficient for storing wind and solar energy for long periods of time. When more renewable energy is generated than customers can use, such as during the middle of the day, a significant portion of California’s solar and wind energy is curtailed. Conversely, on hot days when the sun goes down, energy is in high demand. This trend is likely to increase as renewables comprise a larger portion of grid power, exporting more unused renewable energy and impacting energy affordability.

Gas infrastructure, on the other hand, can serve as a large, long-duration energy storage system. For example, when renewable power is generated and unable to be used immediately, hydrogen can be produced from the excess renewable electricity and stored for days, weeks, or even months, making clean energy readily available from season to season.
Pairing clean molecules with clean electrons across our networks builds reliability and stability. Disruptive events such as extreme weather also underscore the importance of the gas delivery system to maintain uninterrupted service to customers and critical facilities. The gas infrastructure, which is built underground, provides protection from major disruptive events and maintains the flexibility needed for reliability of service. In fact, essential service providers such as hospitals, military bases, and data server farms, rely on gas to maintain public safety. Some hospitals have implemented a combination of fuel cell systems connected to the gas grid for back-up power in the event of an electrical outage, allowing them to continue to perform surgeries.

SoCalGas has invested billions of dollars to realize a cleaner energy future. We will continue to invest in our resilient system to deliver safe, reliable, affordable, and increasingly decarbonized energy to our customers and communities in alignment with California’s carbon neutrality goals.
We continue to innovate, advancing existing and new technologies in distributed energy, hydrogen technologies, carbon capture utilization and sequestration, and cleaner fuels like renewable natural gas and hydrogen.

Investing in INNOVATIVE TECHNOLOGIES

» Anaerobic digestion
» Biomass waste
» Thermal conversion
» Renewable natural gas interconnections

» Fuel cells
» Combined heat and power
» Microgrid infrastructure

» Hydrogen pipeline infrastructure
» Electrolysis
» Pyrolysis
» Hydrogen blending
» Transportation fuel cell technology
» Hydrogen fueling infrastructure

» Capture carbon dioxide to sequester or use
» Utilize carbon in industrial applications
» Direct air capture

PROGRESS
» Research, development & demonstration projects
» Developing partnerships to commercialize technologies
» Engineering and commercial progress underway; launched demonstration hydrogen projects in 2020; expect to launch larger scale projects in 2022-2023
SoCalGas’ H2 Hydrogen Home demonstration project will showcase the role hydrogen must play in attaining California’s goal of carbon neutrality. H2 Hydrogen Home will include solar panels, an electrolyzer (power-to-gas), a battery, and a fuel cell. The demonstration will convert solar energy into clean hydrogen, which can be stored, blended into the gas grid, and used in the fuel cell for the home’s electricity use.

As part of the statewide effort to transport hydrogen through the gas network, SoCalGas is conducting hydrogen blending research and lab testing to support demonstration opportunities with the potential to increase blending to 20%.
California climate goals are ambitious, necessary, and we support them. Like any complex mission, the journey to net zero requires collaboration and new thinking. To meet California’s climate change goals, cooperation among utilities, policymakers, businesses, and community organizations is essential. Working together, we can reduce emissions from transportation, buildings, hard-to-decarbonize industries (e.g., metals, glass and cement manufacturing, aerospace, heavy-duty transportation, rail, and marine), and the energy system itself.

We procure gas for most of our residential and small commercial customers. We also have large customers (e.g., electric generators, industrial users) who utilize our pipeline and storage infrastructure but purchase their own gas from other energy service providers. These large customers make up the biggest portion of SoCalGas’ scope 3 emissions and are essential to reducing them. We are focused on working with our customers to jointly chart a path to net zero as these scope 3 emissions are not produced or controlled by SoCalGas.

Because climate change is a global challenge, SoCalGas works with partners in Europe, Australia, and Canada to leverage best practices and lessons learned to accelerate our progress to net zero.33

33.
SoCalGas Emission Sources & Partners

SoCalGas will leverage existing partnerships and build new ones to transform California’s energy system to meet one of our generation’s greatest challenges.

Our emissions reduction strategies, coupled with new products and services, will be mobilized across our own operations and those of our customers.

SoCalGas is a leading voice, but not the only voice. It will take the sustained will of the business community to innovate and leverage resources to confront the global threat of climate change. It will also require the support of policymakers to put the necessary regulatory frameworks in place to attract robust investments.

As part of our drive to net zero, SoCalGas will continue to partner with universities, national labs, industry consortia, and public agencies to advance clean energy technologies.

![Figure 2. SoCalGas distribution of GHG emissions from company operations (scopes 1 and 2 emissions) and customer gas usage (scope 3 emissions) for year 2019](image)
The Solar Thermochemical Advanced Reactor System (STARS) is a combustion-free concentrated solar thermal and electric induction heated technology developed in partnership with the DOE, Pacific Northwest National Laboratory, and the STARS Corporation. The STARS project produces hydrogen while reducing GHG emissions.

Purecomp is an electrochemical hydrogen separation and compression technology project in partnership with a Netherlands-based company, HyET Hydrogen. It supports clean hydrogen transportation through a common carrier pipeline system, extracting hydrogen where it is needed.

The Cummins Modular Fuel Cell Engine is a partnership with US Department of Energy (DOE), Cummins, and South Coast Air Quality Management District (South Coast AQMD) to demonstrate a fuel cell engine for heavy-duty Class 8 trucks and transit buses that can be customizable to fit each vehicle and power need. This project aims to bring a zero emission vehicle technology solution to the transit and heavy-duty truck industry.
Since California enacted Assembly Bill 32, the Global Warming Solutions Act of 2006, SoCalGas has been investing in early decarbonization efforts, diversification through expanded fuel options, and increased business efficiency and effectiveness with implementation of digital solutions.
Reduced over 1.2 million metric tons of carbon dioxide equivalent (MTCO2e) and $1 billion in avoided energy costs with the nation’s largest gas energy efficiency program.\textsuperscript{36}

Reduced over 1 million MTCO2e two decades prior to the adoption of any mandatory compliance requirements as a founding member of the EPA’s Natural Gas STAR program and advanced leak detection and repair efforts to support the natural gas leakage abatement program.\textsuperscript{39}

Partnered with Cummins-Westport, California Energy Commission (CEC), and South Coast AQMD to develop a natural gas engine that helped the Los Angeles Metropolitan Transportation Authority become the nation’s largest and cleanest transit fleet by converting buses from diesel fuel to compressed natural gas. The upgraded engines and use of renewable natural gas saved approximately 54 thousand MTCO2e per year.\textsuperscript{40}

Dispensed 100% renewable natural gas for all utility-owned vehicle fueling stations, including renewable natural gas supplies from a pipeline-injected dairy digester cluster, a first for California.\textsuperscript{41}

Transported low and negative carbon fuel to medium and heavy-duty vehicles, contributing to the combined reduction of over 1 million MTCO2e annually.\textsuperscript{41}

Partnered with the University of California, Irvine to demonstrate the nation’s first power-to-gas hydrogen pipeline injection project.\textsuperscript{42} This project used surplus renewable power to produce hydrogen for blending into the gas system, providing long-term energy storage.

Installed smart meters for the gas system - first in the nation - resulting in over 3 million therms saved, equivalent to avoiding 18,000 MTCO2e per year.\textsuperscript{43}

Aerially mapped our methane emissions - first in the nation - creating one of the best performing systems in the country.\textsuperscript{44} The early EPA Natural Gas STAR volunteer and advanced leak detection and repair efforts support the natural gas leakage abatement program target of 20% fugitive reduction by 2025.\textsuperscript{45}

Awarded ‘Most Innovative Utility’ in the U.S. by Utility Analytics Institute - for innovation in using data to increase safety, save money for customers, improve customer service, conserve energy, and cut greenhouse gas emissions.\textsuperscript{46}

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Together, these actions reduced GHG emissions by over 3.2 million metric tons CO2e.\textsuperscript{47}
While we have made significant progress already, we know we must do more as we orient our business towards a net zero future. We will continue to invest in our infrastructure to build a resilient system capable of delivering reliable, affordable, and increasingly decarbonized energy to our customers.

We Will Continue to Invest Towards a Net Zero Future.
ASPIRE 2045 is a major endeavor for SoCalGas, representing an evolution in how we will serve our customers and communities into the future. It is also part of a larger enterprise, and in the coming months we will unveil important environmental, social, and governance initiatives that both build out and support our climate commitment.

Climate change is one of humanity’s most pressing challenges and SoCalGas knows California can rise to meet it. While our company does not have all the answers, we are contributing to a successful energy transition through leadership, innovation, and broad collaboration. Our gas system’s ability to deliver reliable, resilient, and affordable energy to Californians means we have a major role to play in the journey to net zero.

We are innovating towards a sustainable future by doing the right thing, championing people, and shaping the future.
References & Information Regarding Forward-Looking Statements


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