

Power Up South LA!

Advancing Community Health through Home Electrification & Gas Decommissioning

FACT SHEET

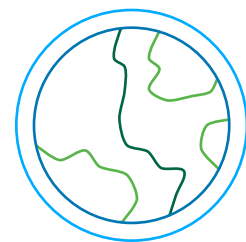
Healthy communities begin with healthy homes—and a critical approach to achieving both is reducing indoor methane gas use. Commonly known as natural gas, methane gas is widely used for home cooking and heating, as well as electricity generation at power plants. However, burning gas inside our homes contributes to significant negative health, environmental, and cost impacts.

Burning gas leads to both indoor and outdoor air pollution, which increases rates of asthma, respiratory and cardiovascular diseases, hospital visits and bills, and even premature death. A [2022 study](#) found that gas stoves are responsible for 12.7% of childhood asthma in the United States. The [risks are even higher](#) for low-income communities and communities of color, who are more likely to live in older and smaller homes with poor ventilation.



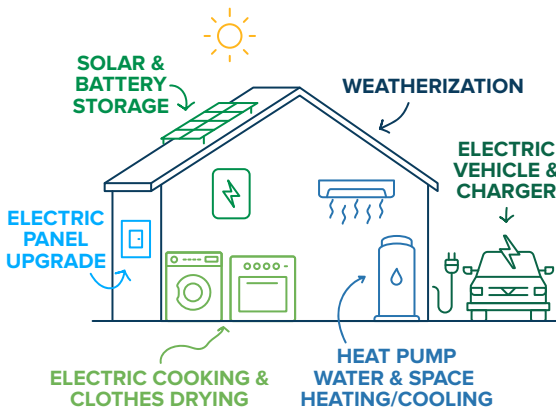
Gas appliances are a major source of smog. The 10 million gas water heaters and furnaces in Los Angeles County [emit](#) as much smog-forming pollution as oil refineries and power plants. These appliances release nitrogen oxides (NO_x), which react with sunlight to form ozone, the main ingredient of smog. Long-term ozone exposure can [trigger](#) asthma attacks and is linked to increased respiratory and cardiovascular illnesses, reduced fertility, poor birth outcomes, and premature death.

Gas use drives climate change. Burning gas releases greenhouse gas emissions into the atmosphere, accelerating climate impacts like more frequent heat waves and wildfires. In Southern California, heat waves are [growing](#) longer and more intense—and across the country, extreme heat was the [deadliest](#) weather-related hazard from 1993 to 2023.



Gas bills are rising and will likely only get worse. As more households switch to electric alternatives, the remaining gas customers are left to cover the growing cost of maintaining the gas system. Gas utilities in California [spend](#) nearly \$3.5 billion annually on infrastructure. This means those who remain on the gas system are likely to face steep rate hikes in the years ahead.

What steps can be taken to remove gas from our homes and communities and advance community health?

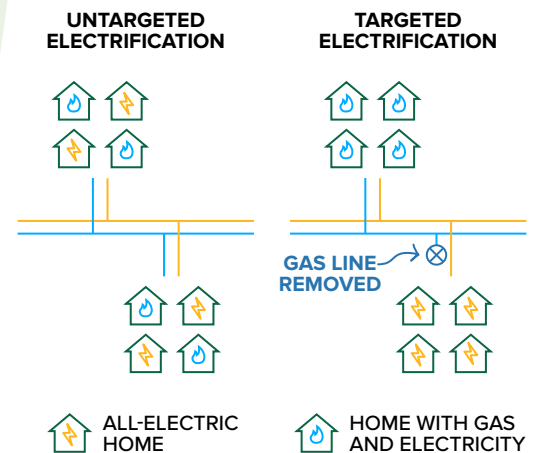


Step 1: Electrify Buildings

As buildings are a major source of gas use and emissions, electrifying them is a key step toward phasing out fossil gas. Building electrification means converting gas-powered systems and appliances to electric so that a building operates entirely on electricity. This can include replacing gas water heaters and stoves with energy-efficient electric models, installing solar panels and home storage batteries, and improving insulation and weatherization (see figure to left, adapted from [Rewiring America](#)).

Step 2: Shut Down the Gas System

Shutting down the gas system (also known as [gas decommissioning](#)) means halting new investments in gas infrastructure and removing existing gas pipelines and other equipment. Some researchers, advocates, and policymakers are exploring the option to decommission entire blocks or neighborhoods at once, which would require all of the homes to electrify first (see figure to right, adapted from [Energy and Environmental Economics](#)). This approach relies on broad community support, usually requiring 100% agreement from affected residents. Therefore, it is often necessary to start with a home-by-home approach, positioning a community to access decommissioning resources as they become available.



What are the benefits and challenges of electrifying and decommissioning?

POTENTIAL BENEFITS

Lower energy bills: One appliance upgrade could save a household [10% to 25%](#) on its energy bills.

Lower carbon footprint: Switching to electric heat pumps can cut household emissions by [over 50%](#).

Reduced indoor air pollution & carcinogens (like formaldehyde & benzene): Switching from gas stove cuts NO₂ levels [by 35%](#), reduces asthma triggers, and leads to [fewer hospitalizations](#)!

POTENTIAL CHALLENGES

Upfront costs for upgrades: Costs will [vary](#) depending on building characteristics and appliance selection but can be mitigated with [rebates and financing options](#).

Uncertain energy bill impacts: Electricity bills increase and gas bills decrease, but overall energy spending depends on appliance selection, efficiency, weatherization, and more.

This FAQ was developed as part of [Power Up South LA](#), an initiative led by Redeemer Community Partnership in collaboration with the [UCLA Luskin Center for Innovation](#) to advance public health through home and community decarbonization in South Los Angeles.