

2022 INDICATORS REPORT

# Building Electrification in San Mateo County



**Sustainable  
San Mateo County**  
Economy. Equity. Environment.

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# Introduction

Reducing carbon emissions in buildings is one of the most effective ways to address climate change, and San Mateo County is leading the way. Almost all of the towns and cities in the county, 17 out of 20, have limited natural gas (which is primarily methane) in new construction. The county itself has gotten on board, too. Along with Santa Clara County, the San Francisco Peninsula has the highest concentration of jurisdictions that have adopted ordinances limiting gas in the U.S. These efforts have been supported and encouraged by the [Campaign for Fossil Free Buildings in Silicon Valley \(FFBSV\)](#), a coalition of 39 organizations that has inspired many other cities and counties across the U.S. to join in advocating for building electrification. More than 60 jurisdictions in California have limited gas in new construction to date.

Buildings in California emit 25% of the state's total carbon emissions, mostly from the use of natural gas in space and water heating. There is mounting evidence that gas is too dangerous and polluting for common use in buildings. Given that [Peninsula Clean Energy](#) already provides 100% carbon-free electricity to all San Mateo County customers, electrification of buildings will enable San Mateo County residents and businesses to accelerate the transition to a clean, carbon-free future.

## San Mateo County Jurisdictions That Have Limited Natural Gas in New Construction

Atherton	Millbrae
Belmont	Pacifica
Brisbane	Portola Valley
Burlingame	Redwood City
Daly City	San Bruno
East Palo Alto	San Carlos
Half Moon Bay	San Mateo (City)
Hillsborough	South San Francisco
Menlo Park	San Mateo County

Additional benefits of building electrification include eliminating toxic indoor pollution caused by gas appliances and improving safety by capping aging underground gas lines, which can rupture and cause fires. New all-electric homes are less expensive to build than homes with both electricity and gas, and will also avoid the future cost of being retrofitted to all-electric as California strives to complete its path to carbon neutrality by 2045. Electrification is becoming increasingly economical as technological advancements rapidly reduce the costs and domestic renewable energy prices remain more stable than the unpredictable costs of fossil fuels. In a 2020 report evaluating scenarios that could achieve an economy-wide reduction in greenhouse gas emissions, the [California Energy Commission \(CEC\)](#) concluded that building electrification is the lowest cost path to building decarbonization, lowering energy bills for customers over the long term as well as the total societal cost of meeting California's long-term climate goals.



Fortunately, efforts to move away from natural gas use in buildings are gaining momentum in San Mateo County and across California:

- The County of San Mateo set goals of 45% reduction in greenhouse gas (GHG) emissions over 1990 levels by 2030 and carbon neutrality within unincorporated areas of the county by 2040.
- California set goals to reduce GHG emissions to 40% below 1990 levels by 2030, and procure 60% of all electricity from renewable sources by 2030 and 100% from carbon-free sources by 2045.
- California set a goal of reaching carbon neutrality by 2045 or sooner.
- The [California Public Utilities Commission \(CPUC\)](#) voted in September 2022 to end gas subsidies for connecting new homes and businesses to the gas system starting in 2023. Residents and businesses that continue to use gas will find themselves paying more and more as the pool of gas users shrinks.
- The [California Air Resources Board \(CARB\)](#) voted unanimously in September 2022 to approve its [State Implementation Plan \(SIP\)](#), including a ban on the sale of natural gas-powered heating and hot water appliances starting in 2030.
- California will also ban the sale of new gas-powered cars by 2035.
- In 2021, California committed \$125 million to building decarbonization, including \$75 million for the [BUILD program](#), \$25 million for the [Low-Income Weatherization Program](#), and \$200 million for community resilience centers.
- The 2022 state budget invests \$1.4 billion in multi-year funding for equitable building decarbonization. Nearly \$1 billion will go toward expanding access to cooling for households through the installation of heat pumps (which heat and cool buildings) and building upgrades.

At the federal level, the [Inflation Reduction Act \(IRA\) of 2022](#) will invest nearly \$370 billion in climate and clean energy nationwide through tax rebates and direct incentives that could put the U.S. on a path to a roughly 40% emissions reduction by 2030.

As of October 2022, California is poised to become the 4th largest economy in the world. Huge investments of state funding in decarbonization, along with the IRA, are sending a strong signal to manufacturers and contractors across the country that the need for electric equipment will likely soar during this decade. Electrification will represent an unprecedented global transition in the way that humans produce and use energy, spurring significant job creation.

Eliminating gas usage in buildings is an essential strategy to reduce greenhouse gas emissions, protect human health, and mitigate the worsening impacts of climate change. This report focuses on the opportunities and challenges of leading the nation in a move from dangerous pipeline gas to clean electric energy for buildings. The report outlines efforts in San Mateo County and across California to electrify buildings, the benefits and complexities of electrification efforts, best practices from other parts of the country and the world, and ways that residents and policymakers in San Mateo County can move the needle on this important issue.





**“We are going to need millions of high-paid tradespeople. [Electrification] will be a global transition on a scale unprecedented in our lifetimes, comparable to the transition from horses and buggies to cars, travel by airplanes, and the introduction of computers.”**

**- Gabriel Taylor, Senior Engineer,  
California Energy Commission**