



Building Decarbonization: Fact vs. Fiction

The California Public Utilities Commission (CPUC) is in the process of implementing Senate Bill (SB) 1477 (Stern, 2018), which directs the Commission to create two new programs to promote the use of highly efficient building appliances. The first program, the Building Initiative for Low Emissions Development (BUILD) program, will offer up to \$20 million per year for four years to promote the construction of new residential housing that utilizes near-zero-emission building technologies. The second program, the Technology and Equipment for Clean Heating (TECH) program, will offer up to \$30 million per year for four years to promote purchases of low-emission space and water heating equipment.

Recent false and misleading claims made by groups advocating for the continued use of natural gas have caused confusion among elected officials, the media, and the general public regarding what actions the CPUC and other state agencies are currently taking to help decarbonize California's buildings.

Myth #1: The CPUC is mandating that all buildings stop using natural gas

Reality: There is no such mandate. The BUILD and TECH programs create incentives for utility customers to invest in new low carbon-emitting building technologies. The programs will be created in accordance with state statute and do not include any mandate to dismantle or diminish California's existing natural gas pipeline infrastructure. The tens of millions of natural gas appliances currently operating in homes and businesses across California represent a significant source of greenhouse gas (GHG) emissions and indoor air pollution. Collectively, buildings are responsible for approximately 12 percent of the state's overall emissions, and most of those emissions come from natural gas space and water heating. Meanwhile, electricity in California is becoming increasingly cleaner thanks to laws like the Renewables Portfolio Standard, which requires the state's utilities to buy at least 60 percent of their electricity from clean, renewable sources by 2030, and for the state's electricity grid to be completely carbon-free by 2045. In California, electricity is increasingly a cleaner alternative to natural gas. BUILD and TECH are intended to increase the use of highly efficient electric appliances, thus resulting in an overall decrease in GHG emissions over time.

Myth #2: Californians will be forced to retrofit their homes

Reality: Nobody will be forced to convert any of their appliances. Both BUILD and TECH are entirely voluntary programs. If a homebuilder does not want to construct new residential housing that utilizes near-zero-emission building technologies, they do not have to. Similarly, a consumer planning to retrofit her home with a new appliance will have no obligation to purchase electric appliances instead of natural gas appliances. Consumers will continue to be free to purchase whatever appliance best meets their needs.

Myth #3: Consumers will see dramatically higher bills

Reality: Neither BUILD nor TECH is anticipated to increase the average cost of service. The bill impacts for individual consumers participating in the programs will depend on a variety of factors, but the highly efficient buildings promoted by BUILD should result in significantly lower energy bills. According to an April 2019 study conducted by Energy and Environmental Economics, Inc., “building electrification... can lead to consumer capital cost savings, bills savings, and lifecycle savings in many circumstances.”¹ The study adds, “The most promising near-term opportunities for consumer cost savings among low-rise residential building electrification options can be found in all-electric new construction, and high efficiency air source heat pumps in homes where air conditioning can be replaced with heat pumps.”

Myth #4: Renewable natural gas will not be a future option

Reality: The CPUC is actively working to make renewable natural gas available in greater quantity. Six dairy biomethane pilot projects were recently authorized by the CPUC, and the Commission is currently considering applications from both Southern California Gas Company and San Diego Gas & Electric to introduce a special tariff allowing customers to opt into purchasing renewable natural gas. On August 20, 2019, the CPUC hosted a workshop at its San Francisco headquarters to begin developing a process to determine whether “off specification” gas can be injected into the pipeline system and blended in the system itself. The CPUC is considering multiple ways to quickly, effectively, and efficiently decarbonize California’s energy mix, and renewable natural gas is anticipated to play a role in that process. More information related to the CPUC’s efforts to promote renewable gas can be found at https://www.cpuc.ca.gov/renewable_natural_gas/.

Myth #5: Action is not needed at this time

Reality: BUILD and TECH represent an important next step in helping California meet its climate-related goals by reducing emissions from buildings. The two programs are anticipated to play a similar role to that of the California Solar Initiative, which brought cost-effective rooftop solar to California. Early action on market transformation programs will ensure that low- and zero-emission space and water heating technologies continue to improve in effectiveness and lower both installed costs and operating costs alike. To the extent that BUILD and TECH help incentivize the use of highly efficient electrically powered technologies for space and water heating, the two programs will help California reduce its overall emissions more and more each passing year. Timely action is necessary for California to continue to be a leader in the fight against climate change, and both BUILD and TECH will contribute to the state’s overall emissions reduction effort.

¹ https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf