



Building Electrification Talking Points

Last updated 7/13/22

San Francisco Bay Physicians for Social Responsibility (SF Bay PSR) represents hundreds of health professionals, who seek to protect the health of our patients and communities who are threatened by the climate emergency that is destroying our life support system. **SF Bay PSR seeks to rapidly advance policies and regulations in support of an equitable transition to all electric buildings.** Switching from fossil-fuel appliances to all electric appliances will help protect health and the planet.

We developed these talking points to facilitate health professionals' advocacy via public comments, testimony, media interviews, and public presentations for California state-wide policies, as well as county and city ordinances and building "[reach codes.](#)" The talking points are based on key summary points from [these resources](#), which provide extensive supplemental information in developing comments. A boilerplate sample testimony is at the end of this document. Comments are often limited to 1-3 minutes in many forums, so what is important for us to guarantee is that the health voice is brought to bear on the issue in support of community-based advocates.

Key talking points:

1. Building electrification is a key strategy for addressing our climate emergency.
2. Building electrification prevents toxic exposures to air pollution from gas stoves and other gas appliances.
3. Pollution from gas stoves disproportionately harms children and communities of color.
4. State, local, and other policymakers should undertake building electrification rapidly and equitably.

1. Building electrification is a key strategy for addressing our climate emergency.

- The United Nation's IPCC climate change report warned that "rapid and deep" cuts to greenhouse gas emissions (GHG) are needed to stay below the targeted 1.5 degrees Celsius of global warming. Without strengthening climate policies, greenhouse gas emissions are projected to lead to a median global warming of about 3.2 degrees Celsius by 2100.
- "Greenhouse gas (GHG) emissions from California's building sector account for more than a quarter of the state's total emissions. Direct emissions from building fossil fuel use account for 10–15% of the total. These emissions result primarily from both the combustion of gas in buildings for cooking, heating, and water heating as well as from methane leaks throughout the gas distribution system." ([UCLA 2019 page 3](#)).
- Building electrification (BE), defined as "replacing gas with efficient electric appliances in existing buildings and constructing new building as all-electric" is the primary approach to building decarbonization.



2. Building electrification prevents toxic exposures to air pollution from gas stoves and other gas appliances.

- Gas stoves produce dangerous amounts of air pollutants, including nitrous oxides (NO_x), carbon monoxide (CO), and particulate matter (PM), that often exceed outdoor ambient air standards. These pollutants can have lasting and damaging effects on the human body. Children, low income, and communities of color are among the most vulnerable.
- Homes with gas stoves can emit nitrogen dioxide concentrations that are 50-400% higher than homes with electric stoves.
- [A 2020 UCLA study](#) (p.6) found that “Under a hypothetical cooking scenario where a stove and oven are used simultaneously for one hour, peak concentrations of NO₂ from cooking with gas appliances exceed the levels of acute national and California-based ambient air quality thresholds in more than 90% of modeled emission scenarios.”
- Children in homes with gas stoves have a 42% increased risk of experiencing asthma symptoms, a 24% increased risk of ever being diagnosed with asthma by a doctor, and an overall 32% increased risk of both current and lifetime asthma.
- Chronic exposure to elevated PM_{2.5} has the potential to damage human respiratory systems, as well as the cardiovascular system, and may result in premature death.
- [A 2020 UCLA](#) study (p.7) found: “If all residential gas appliances were immediately replaced with clean electric alternatives, the reduction of outdoor NO_x and PM_{2.5} would result in 354 fewer deaths, as well as 596 fewer cases of acute bronchitis, and 304 fewer cases of chronic bronchitis annually in California. This is equivalent to approximately \$3.5 billion in monetized health benefits over the course of one year. These numbers only account for exposures from outdoor air as a result of residential electrification; a full exposure assessment accounting for indoor exposures would increase the total health benefits and the associated economic benefits of residential electrification.

3. Pollution from gas stoves disproportionately harms children and communities of color.

- African-American and Hispanic children with asthma are likely the most disproportionately burdened by indoor air pollution from gas stoves.
- Poor people without adequate heating will often use gas stoves to heat their home which contributes to indoor air pollution.
- Lower-income and communities of color are three times more likely to live in an area with poor outdoor air quality, which compounds indoor air pollution health harms.
- Inequity in exposure to air pollution from gas stoves is reinforced by housing conditions which exacerbate exposure, such as: smaller unit size, greater occupant density, old or unmaintained and often inadequate stove-top ventilation which contributes to elevated concentrations of NO₂ in lower-income, multifamily buildings, and the reality that renters often do not want to ask landlords to change or repair appliances for fear of a rent increase or eviction.



4. State, local, and other policymakers should undertake building electrification rapidly and equitably.

- **RECOGNIZE THAT BUILDING ELECTRIFICATION CAN BE DONE!** As of December 2021, [54 jurisdictions in California](#) have building decarbonization ordinances in place. [RMI](#), SF Bay Area community choice renewable energy aggregators such as SF Clean Energy and Peninsula Clean Energy have confirmed that our Bay Area electrical systems and grid are ready for people to start switching to all electric.
- **UNDERTAKE BUILDING ELECTRIFICATION EQUITABLY.** Equity when designing and implementing building decarbonization policies is essential and needs to be hard-wired into policies from the beginning. Marginalized communities must not bear disproportionate costs and should have ample opportunity to reap the benefits of building electrification. An equitable framework for building electrification is outlined [here](#). According to the [Greenlining Institute](#), “Electrification can provide environmental and social justice communities access to the major benefits such as cleaner air, healthier homes, good jobs and empowered workers, and greater access to affordable clean energy and energy efficiency to reduce monthly energy bills, while helping the state meet its climate goals, including a net-zero carbon economy and 100% clean electricity by 2045.”
- Policies must ensure that electrification of space heat offers significant bill savings that can help energy burdened communities transition away from gas.
- Create authentic partnerships that center the perspectives of vulnerable communities, support community-based participation and power that results in shared decision-making, while also strengthening the health and well-being of the entire region.
- Governments must provide financial incentives, such as tax credits or rebates, that will enable low-income homeowners to eliminate gas stove pollution, including adding plug-in induction stovetops or switching from gas to electric stoves.
- Prioritize investments that close historic racialized gaps in a way that will improve access to jobs, including green energy jobs, and economic and health opportunities for underinvested communities.
- Electrifying our building stock produces a new demand for skilled workers. [A 2019 UCLA study](#) documented (p. ES-4) that building electrification in California could support an average of 64,200–104,100 jobs annually, after accounting for losses in the gas industry. The greatest increases in employment would be building retrofits and renewable energy construction, while the greatest decreases would be in gas distribution followed by labor-saving all-electric new construction. However, the negative labor impacts are much smaller than the positive impacts.
- As described in detail in [UCLA’s 2019 report](#), (p. Es-8) “California policy makers should aim to expand high-road opportunities that offer family-sustaining wages, benefits, and job security for workers. Because they procure services — climate and energy agencies, utilities, and local governments exert the most influence on the labor market through demand-side strategies.”



5. Boilerplate example of building electrification testimony

I'm [NAME.] I am [TYPE OF HEALTH PROFESSIONAL] and speaking to you on behalf of San Francisco Bay Physicians for Social Responsibility (PSR), which represents hundreds of health professionals throughout our region, who speak for the health of our patients and communities, who are increasingly impacted by the unfolding public and environmental health impacts of global warming, and clearly connected issues of air pollution.

The recently released assessment by the United Nations Intergovernmental Panel on Climate Change is unequivocal in its call for urgent action to ensure an energy efficient and fossil-free future. Reducing reliance on gas appliances is health protective, not only because of the climate benefits of moving away from fossil fuel extraction and use, but also because gas stoves and other appliances can be a large source of toxic pollution in homes, reaching levels of pollution that would be illegal in outdoor settings. Children, especially those of color, are particularly at risk of respiratory illnesses, such as asthma, associated with gas appliance pollution, and lower income households may be at higher risk of exposure.

So, as one example, a 2013 meta-analysis looking at the association between gas stoves and childhood asthma found children in homes with gas stoves have a 42% increased risk of experiencing asthma symptoms (current asthma), a 24% increased risk of ever being diagnosed with asthma by a doctor (lifetime asthma), and an overall 32% increased risk of both current and lifetime asthma.

In addition, there is mounting evidence linking combustion related air pollution with adverse brain development. A 2009 study found evidence that infant through preschool-age early-life exposure (through age four) to indoor air pollution from gas appliances may be related to impaired cognitive function and may increase the risk of developing attention-deficit/ hyperactivity disorder (ADHD) symptoms.

Accordingly, we strongly support [FILL IN THE SPECIFIC ASK]. As such, you would join many other cities in California that have already adopted electric requirements for new construction in order to avoid new fossil gas use, in recognition of numerous benefits to community health, safety, and a stable climate future afforded by this transformation.

We call on you to use this critical opportunity to demonstrate your leadership and commitment to rapidly develop the more economical, pollution-free buildings we need now for the optimal public, environmental and climate health that we and future generations so deserve.

For questions, please contact info@sfbaypsr.org with the subject line, Building Electrification.

Thank you to SF Bay PSR Intern Alma Hernandez for her great help compiling the online references and talking points.