



The Campaign for Fossil Free Buildings in Silicon Valley

350 Silicon Valley, Acterra, Bay Area for Clean Environment, Carbon Free Silicon Valley, Carbon Free Palo Alto, Carbon Free Mountain View, Cinnamon Energy Systems, Citizens' Climate Lobby San Mateo County, Citizens Environmental Council of Burlingame, Clean Coalition, Climate Reality Project: Silicon Valley, Coltura, Cool Block, Earthy B, Electrify Now, emeraldECO, Fossil Free Mid-Peninsula, GreenTown Los Altos, Indivisible Ross Valley, Kitchens of Life, Menlo Spark, Menlo Together, Mothers Out Front Silicon Valley, npc Solar, Pacifica Climate Committee, Peninsula Interfaith Climate Action, Project Green Home, Redwood Energy, SIDCO Homes, San Carlos Green, San Francisco Bay Physicians for Social Responsibility, Sierra Club Loma Prieta Chapter, Sustainable San Mateo County, Sustainable Silicon Valley, Sunnyvale Cool, Silicon Valley Youth Climate Action, and Silicon Valley Youth Climate Strike

October 29, 2021

Atherton City Council
80 Fair Oaks Lane
Atherton, CA 94027

Via email: asuber@ci.atherton.ca.us

RE: Support for an All-Electric Reach Code for Healthy Homes, Clean Air, and a Climate Resilient Community

Dear Mayor Lewis and Town Council Members,

On behalf of the Campaign for Fossil Free Buildings in Silicon Valley ([FFBSV](#)), this letter expresses our strong support for an all-electric reach code to be evaluated in Atherton on November 3, and to be expedited for adoption by the Town Council. Although we are continuing to recover from the pandemic, local building electrification regulations are critically needed to address the magnitude of the climate crisis, as well as the air quality, health, and safety impacts of current fossil gas use in our homes and buildings. We strongly urge you to move forward with an all-electric Reach Code requiring electric heating and appliances, on-site solar energy, and electric vehicle charging infrastructure in all new construction.

FFBSV includes the 37 local organizations listed above, working together to support an accelerated phase out of fossil fuels in buildings. A rapid transition away from fossil fuel use is critical to avoid the very worst and irreversible impacts of climate change. Preventing the use of fossil fuels, including natural gas, in new construction will create more affordable, cleaner, healthier, and more resilient housing and buildings for communities in Atherton.

Building Electrification is an Urgent Climate Action

Although the devastating increase in catastrophic wildfires throughout California has raised public awareness of climate change, the depth of the climate crisis is even worse than is commonly understood and demands urgent action. A sobering report from the Intergovernmental Panel on Climate Change

(IPCC) released in August has found that humans have had an “unequivocal” influence on climate change and warns that this decade is humanity’s last chance to limit warming.¹ While the IPCC report revealed that sadly, a 1.5°C rise in planetary temperature is now unavoidable, the potential to limit warming to below 2°C—and avoid even more catastrophic climate impacts—is still possible if the world can achieve net-zero carbon emissions by 2050.² That means we need to accelerate phasing out fossil fuels now, including heating and cooking with methane gas (note that methane has an 84 time greater climate impact than CO2 over a 20-year timespan).³

More than half of all cities in San Mateo County have already adopted electric requirements for new construction that avoid new fossil gas use because there are many benefits to community health, safety, and a stable climate future, including:

- **Economic:** All-electric homes are less expensive to build (saving roughly \$10,000 for each single-family home).⁴ In all of the buildings analyzed by the 2019 Nonresidential New Construction Reach Code Cost Effectiveness Study by TRC and Energy Soft, all-electric versions cost less to construct than their mixed-fuel counterparts. **All-Electric buildings are also more efficient.** For example, according to the California Energy Commission, a modern high-efficiency heat pump electric water heater (available now at major retailers) costs roughly one-third less on utility bills to operate than the most efficient gas water heater.⁵ In addition, all-electric buildings include air-conditioning combined with heating, resulting in less equipment, reduced maintenance costs, and greater climate resilience.
- **Public Safety:** Fossil gas is highly flammable. In the past 10 years, 9,000 gas explosions in the U.S have killed more than 500 people, and gas leaks have displaced and sickened thousands of people.⁶ Methane gas also caused half the fires after two major California earthquakes.⁷
- **Public Health:** Gas stoves release smog-forming compounds such as nitrogen dioxide, unburnt hydrocarbons and carbon monoxide pollution that doubles risks for heart and lung disease and triples the use of asthma medications.⁸ ***In fact, studies have shown that children living in homes using gas for cooking have a more than 40% higher risk of developing asthma.***⁹ Further, improperly vented gas appliances lead to carbon monoxide poisoning that results in thousands of emergency room visits and several hundred deaths every year.¹⁰
- **Climate:** All-electric buildings are a highly visible and practical step forward to address the climate crisis, by breaking the cycle of fossil fuel dependency in buildings. This is the single biggest step that cities and counties can take to address climate this year.
- **Construction Time Savings:** All-electric buildings are generally faster to design, permit, and build. The code is easier for building and planning staff to apply, and it is also easier for everyone to understand.
- **Resilience:** An all-electric code today heads off a complex, costly and likely inevitable switch to electricity in the future, since gas prices are expected to rise sharply, and California is planning to eventually end gas distribution. PG&E has asked for a 24% gas rate increase over the next

couple years, and this is just the beginning. **Building all-electric now will help future-proof Atherton.**

In addition to the many benefits of building all-electric new homes and buildings, including on-site solar energy generation, strong electric vehicle charging infrastructure standards will also help support a transition away from fossil fuels, boost resilience, and ensure equity in accessing EVs. Please move forward as quickly as possible with this important climate measure.

Thank you for considering our comments. We would be pleased to provide additional information or respond to any questions that might arise.

Sincerely,

Leane Eberhart, Architect

Jenny Green, Mothers Out Front Silicon Valley

James Tuleya, Chairperson, Carbon Free Silicon Valley

Hilary Bates AIA, hilarybatesarchitecture.com

Sean Armstrong, Redwood Energy

Robert M. Gould, President, San Francisco Bay Physicians for Social Responsibility

Janelle London, Coltura

Jennifer Thompson, Sustainable Silicon Valley

Scott Shell, FAIA, EHDD Architecture

Terry Nagel, Chair, Sustainable San Mateo County, and former Mayor, Burlingame

Diane Bailey, Executive Director, Menlo Spark

¹ <https://www.ipcc.ch/report/ar6/wg1/>

<https://www.bloomberg.com/news/features/2021-08-09/ipcc-report-human-caused-climate-change-unequivocal>

² https://www.nytimes.com/2021/08/09/climate/climate-change-report-ipcc-un.html?te=1&nl=climate-fwd:&emc=edit_clim_20210812

³ California Air Resources Board, <https://ww2.arb.ca.gov/our-work/programs/methane-research>

⁴ See www.PeninsulaReachCodes.org

⁵ Rider, Ken, Email correspondence, ken.rider@energy.ca.gov. March 2020.

⁶ Joseph, George. "30 Years of Oil and Gas Pipeline Accidents, Mapped." Citylab. November 30, 2016

Sellers, F., Weintraub, K. and Wootson, C. (2018). "Thousands of residents still out of their homes after gas explosions trigger deadly chaos in Massachusetts." Washington Post. https://www.washingtonpost.com/national/thousands-of-residents-still-out-of-their-homes-after-gas-explosions-trigger-deadly-chaos-in-massachusetts/2018/09/14/802ff690-b830-11e8-94eb-3bd52dfe917b_story.html

⁷ Los Angeles in 1994 and San Francisco in 1989, according to the California Seismic Safety Commission. (2002). "Improving Natural Gas Safety in Earthquakes." SSC-02-03

Taylor, Ann. "The Northridge Earthquake: 20 Years Ago Today." The Atlantic. January 17, 2014.

⁸ Jarvis et al. (1996) "Evaluation of asthma prescription measures and health system performance based on emergency department utilization." <https://www.ncbi.nlm.nih.gov/pubmed/8618483>

⁹ Lin, W., Brunekreef, B. & Gehring, U. Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children. Int. J. Epidemiol. 42, 1724–1737 (2013).

¹⁰ USDN, Methane Math, https://sfenvironment.org/sites/default/files/fliers/files/methane-math_natural-gas-report_final.pdf