



October 6, 2022

Ventura County Board of Supervisors
 County Government Center
 800 S. Victoria Avenue Ventura, California 93009
 Via email: clerkoftheboard@ventura.org
 cc: BuildingCodeChanges2022@ventura.org

RE: October 11: First Public Hearing regarding adoption of an Ordinance for the Fire Zone Construction Standards and Reach Codes for all Electric Buildings - SUPPORT

Dear Ventura County Board of Supervisors,

Thank you for your on-going climate leadership and progress enacting measures in your General Plan to reduce greenhouse gas pollution, including updates to the Ventura County Building Code requiring that all newly constructed buildings be all-electric.¹

A recent op-ed in the LA Times makes the case that local building code updates like this are one of the most impactful thing we can be doing about the climate crisis right now,² and their editorial board has called for more cities in our region to pass electrification reach codes in light of the 2015 Aliso Canyon gas disaster and the climate-fueled wildfire disasters since then, calling such codes, “essential for cleaner, healthier communities and the planet.”³ By passing an ordinance now, Ventura County is taking an important and timely step to mitigate the climate, health, safety, and housing affordability crisis.

¹ VENTURA COUNTY BUILDING CODE (VCBC) 2022 EDITION ([https://vcma.org/docs/images/pdf/bs/Ordinance_\(VCBC2022\)_Exhibit_2.pdf](https://vcma.org/docs/images/pdf/bs/Ordinance_(VCBC2022)_Exhibit_2.pdf))

² Climate change is a big problem. Citizens must demand many small solutions (<https://www.latimes.com/opinion/story/2022-09-18/climate-change-citizen-action-building-codes-energy-efficiency>)

³ Times Editorial Board, “Five years after the Aliso Canyon methane leak, California is still too reliant on fossil fuels,” LA Times, October 23, 2020

First, by adopting this, unincorporated Ventura County will join a wave of cities and counties across California in declaring that fossil fuels must be phased out of our homes, commercial buildings, and communities, and that we have a right to clean, safe, and affordable energy. Ventura County will not be alone in deciding to phase out gas in new construction. Right now, **60 cities and counties in California** have implemented reach codes to shift to all-electric new construction and many more are in consideration.

The ordinance will improve air quality and public health for Ventura County residents. All-electric new construction will improve indoor air quality for county residents. On average, Californians spend 68 percent of their time indoors, making indoor air quality a key determinant of human health.⁴ The combustion of gas inside our homes produces harmful indoor air pollution, specifically nitrogen dioxide, carbon monoxide, nitric oxide, formaldehyde, acetaldehyde, and ultrafine particles.⁵ These odorless and undetectable gas combustion pollutants can cause respiratory diseases, as well as more serious conditions, including death.⁶ Lawrence Berkeley National Laboratory recently found that air pollution levels in the 55-70 percent of homes with gas stoves exceed EPA's definition of clean air, i.e. air pollution levels indoors in these homes would be illegal if found outdoors.⁷ One study found that gas stoves may be responsible for up to 12 percent of childhood asthma cases.⁸

All-electric new construction will also be key to mitigating outdoor air pollution in California. Hazardous air pollution is a particularly acute issue for low-income communities and people of color, who are exposed to higher incidences of particulate matter (PM 2.5) and other harmful pollutants.⁹ While most think of trucks, power plants and industry as the major culprits of air pollution, buildings have for too long gotten a free pass. Gas combustion appliances lack modern-day pollution controls and are a major source of air pollution, particularly in the winter from gas heating. Gas appliances in residential and commercial buildings produce nearly nine times more nitrogen oxide (NO_x) emissions than gas power plants.¹⁰ Nitrogen oxide is a precursor to ozone and PM 2.5, two pollutants that cause asthma, lung cancer, respiratory diseases, and premature death.¹¹ All-electric new construction is an essential step to improving air quality in Ventura County and Southern California as a whole.

The reach code will lower the cost of new construction and support affordable housing. All-electric homes can be cheaper to build¹² than gas-heated buildings — and they can lower monthly utility bills for unincorporated Ventura residents and businesses.¹³ Ensuring all new construction is built without gas hookups will help developers build more quickly and affordably as there will be no need for new costly gas infrastructure — an advantage in the ongoing housing crisis. An analysis by the Statewide Utility Codes and Standards Team found that building all-electric already reduced construction costs on average \$5,000 for single-family homes and over \$2,000 per unit in a multi-family building. In addition, the California Public Utilities Commission just announced it is removing subsidies for gas hookups meaning that gas expansion in new housing will likely push the price of gas and the cost of new gas homes up even further. Subsidies under the Inflation Reduction ACT will further lower the cost of construction and appliances for new electric homes.

⁴ Klepeis, N. E.; Nelson, W. C.; Ott, W. R.; Robinson, J. P.; Tsang, A. M.; Switzer, P.; Behar, J. V.; Hern, S. C.; Engelmann, W. H. The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants. *J. Expo. Anal. Environ. Epidemiol.* 2001, 11 (3), 231–252.

⁵ See, Jennifer Logue et al., “Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California” *Environmental Health Perspectives* Vol. 122 No. 1 pp. 43-50, (2013); Victoria Klug and Brett Singer, “Cooking Appliance Use in California Homes—Data Collected from a Web-based Survey.” Lawrence Ventura County National Laboratory (August 2011); John Manuel, “A Healthy Home Environment?” *Environmental Health Perspectives*, Vol. 107, No. 7 1999, pp. 352–357; Nasim Mullen et al., “Impact of Natural Gas Appliances on Pollutant Levels in California Homes” Lawrence Ventura County National Laboratory, 2012.

⁶ CARB, “Combustion Pollutants” (reviewed July 14, 2020). Available at <https://www.arb.ca.gov/research/indoor/combustion.htm>

⁷ “Pollution in the Home: Kitchens Can Produce Hazardous Levels of Indoor Pollutants” <https://newscenter.lbl.gov/2013/07/23/kitchens-can-produce-hazardous-levels-of-indoor-pollutants/>

⁸ “Cooking with gas, damp housing may cause childhood asthma: study,” <https://www.brisbanetimes.com.au/national/queensland/cooking-with-gas-damp-housing-may-cause-childhood-asthma-study-20180415-p4-z9pz.html>

⁹ “Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure” <https://www.pnas.org/content/116/13/6001>

¹⁰ “Emission Inventory Data” <https://www.arb.ca.gov/ei/emissiondata.htm>

¹¹ “Health Effects of Ozone and Particle Pollution” <https://www.lung.org/our-initiatives/healthy-air/sota/health-risks/>

¹² “Decarbonization of Heating Energy Use in California Buildings” <https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf>

¹³ “The Economics of Electrifying Buildings” <https://rmi.org/insight/the-economics-of-electrifying-buildings/>

Building all-electric will also save costs for Ventura County residents and businesses in the long-term as we transition to a carbon-neutral economy. Gas distribution pipeline extensions to new homes are expected to become stranded assets¹⁴ well before the end of their useful life as more buildings electrify over the coming years. Stopping investments in new gas infrastructure is a fiscally prudent strategy to avoid saddling ratepayers and taxpayers with the costs of maintaining and ultimately decommissioning stranded gas infrastructure.

The reach code will make unincorporated Ventura County's homes and businesses safer and more resilient in the face of climate change. California is experiencing an increasing occurrence of extreme heat waves, with practically each summer breaking previously held record temperatures.¹⁵ Many Ventura County residents, particularly low-income families, do not have air conditioning and are not prepared to adapt to these heat waves, posing new health and safety risks. Air conditioning is an important bonus from replacing gas furnaces with electric heat pump space heaters, as the heat pumps can operate in reverse and provide high efficiency cooling when needed. Electrification offers greater comfort, safety, and climate resiliency when temperatures peak.

Lastly, gas pipelines are vulnerable to methane leakage, over-pressurization, earthquakes and fires. Aliso Canyon (2015/16), Bakersfield (2015), Carmel (2014), San Bruno (2010), and Rancho Cordova (2008), and recent fires in North Carolina, Massachusetts, and San Francisco are but a few of the important and unfortunate reminders of the gas system's inherent risks. In our region, gas infrastructure is located in particularly dangerous, populated areas that pose an on-going risk to area residents. For instance, the Ventura Compressor Station is in a populated area next to an elementary school. Given the earthquake faults in California, fires exacerbated by gas pipelines after earthquakes are of significant concern. Communities with gas pipelines in Ventura County face increased risks of fires as gas pipeline leaks are highly flammable. Aging pipelines and associated equipment, and inflexible pipeline materials are vulnerable to shifts in the earth and buildings that put additional stress on pipelines, causing cracks and potentially explosive methane leaks.

Solar panels are already required on new homes. Paring solar with increasingly affordable home batteries make new homes immune to an emergency outage. Moreover, utility-scale batteries have already helped us avoid outages during high demand events and will continue to get more robust. SCE and the Clean Power Alliance support all-electric building ordinances. New homes with all-electric heat pumps are better than separate gas heat and air conditioning on price, quality and load efficiency headed into a climate future.

Passing an all-electric new building ordinance is an appropriate step to do our part in achieving California's climate goals, including carbon neutrality by 2045 or sooner. Electricity in Ventura County is rapidly getting cleaner, with the Clean Power Alliance 100% renewable energy default. As a result, shifting to electric power in our buildings dramatically lowers greenhouse gas emissions. The prohibition of new Natural Gas Infrastructure is a crucial part of Ventura County's future. By mandating gas-free construction for all new buildings, Ventura County will protect the health of its residents and the affordability of its housing, while implementing the critical climate protections necessary for dramatic greenhouse gas reductions.

Sincerely,

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Chair, Sierra Club Santa Barbara-Ventura Chapter

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Associate Executive Director, Climate First: Replacing Oil & Gas (CFROG)

¹⁴ "The 'Rush To Gas' Will Strand Billions As Renewables Get Cheaper, Study Says"
<https://www.forbes.com/sites/jeffmcMahon/2018/05/21/the-rush-to-gas-will-cost-billions-in-stranded-assets-as-renewables-get-cheaper-institute-says/#52a7065c3a0d>

¹⁵ "U.S. sweltered through third-hottest summer on record: August 2022 saw remarkable heat, historic flash floods," NOAA, September 9, 2022 <https://www.noaa.gov/news/us-sweltered-through-third-hottest-summer-on-record>

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